

**DRAFT
ENVIRONMENTAL IMPACT REPORT**

**AVILA & SONS
WASHINGTON ROAD WAREHOUSE
SCH #2013082091**



August 2014



Quad Knopf

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**Avila & Sons
Washington Road Warehouse
SCH #2013082091**

Prepared for:

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- Appendix D Phase I / II Environmental Site Assessment, Avila & Sons North Washington Road Warehouse Project, J House Environmental, Inc., December, 2013
- Appendix E Environmental Noise Analysis, Dan Avila & Sons (Washington Road) Warehouse EIR, Bollard Acoustical Consulting, Inc., November 5, 2013
- Appendix F Traffic Impact Analysis for Washington Road Warehouse, KD Anderson & Associates, Inc., October 15, 2013
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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Introduction

Under the California Environmental Quality Act (CEQA), when discretionary projects are undertaken by public agencies, an Environmental Impact Report (EIR) is required if the Lead Agency determines that the project may cause a significant and unavoidable environmental impact. This was concluded by the Notice of Preparation (NOP) prepared and published for this project in August, 2013 (Appendix A). Comments received during the NOP circulation period follow the NOP in Appendix A.

The purpose of an EIR is to provide full disclosure of the potentially significant environmental effects of the proposed project to the public and their decision-makers and explore means to mitigate (i.e., reduce, avoid, or eliminate) those impacts through special mitigation measures or alternatives to the project. CEQA intends that preparation of an EIR will be a public process that provides meaningful opportunities for public input with regard to environmental effects.

Section 15123 of the *CEQA Guidelines* requires that an EIR contain a brief summary of the proposed action and its consequences. This Executive Summary is required to identify the following:

- 1) Each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect;
- 2) Areas of controversy known to the Lead Agency including issues raised by agencies and the public; and
- 3) Issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects.

Procedures

As Lead Agency, Stanislaus County has determined that a Project EIR should be prepared for the proposed project summarized below and described in greater detail in Chapter Two, in accordance with the requirements of CEQA.

Project Description

The project proponent, Dan Avila & Sons, proposes the construction and operation of a 180,000 square foot warehouse and associated facilities in order to conduct receiving, storage, packing, and shipping of watermelons, sweet potatoes, beans, wheat, pumpkins, and squash. Several structures would be constructed in addition to the existing buildings on the site, as described below, on a 26± acre portion of the 61.7± acre site. (See Figure 2-5, Site Plan in Chapter Two.) Note that the site plan shown in Figure 2-5 will be revised in accordance with conditions of

approval imposed by Stanislaus County for the use permit application and by the City of Turlock for the encroachment permit onto N. Washington Road.

A maximum of approximately 75 employees would be on the site at any time. Hours of operation would mostly be 6:00 a.m. to 6:00 p.m., but could operate 24 hours on occasion.

Produce processed at the facility, consisting primarily of watermelons and sweet potatoes, would come from the fields on the site surrounding the buildings, as well as from other sites farmed by the project proponent.

According to the traffic impact analysis prepared by KD Anderson & Associates, Inc., dated January 24, 2013, the warehouse would be expected to generate 817 daily vehicle trips; however, the project proponent has indicated that, at least initially, the operation would not generate that volume of the daily traffic.

Warehouse

The main feature proposed on the site is a 180,000 square foot (300 feet x 600 feet) warehouse with 10 truck shipping and receiving docking bays on the north and south sides of the building. The warehouse would include areas for packing and storage of produce. This structure would have a shed roof, with a maximum height of approximately 32 feet at the ridge line. The building sides and roof would be constructed of steel and would be painted in earth tone colors. The warehouse would be used for sorting, storing, packing, and shipping of produce. Seventy truck deliveries/loads per day are anticipated seasonally from June to October for a total of 7,000 annually. Evaporative coolers and refrigerators would be used to maintain produce freshness. A maximum of 60 employees would be in this building. Hours of operation would mostly be 6:00 a.m. to 6:00 p.m., but could operate 24 hours on occasion.

Other Structures

Other proposed and existing structures on the site are as follows:

- Existing Dwelling/Conversion to Office
- Existing Barn/Conversion to Packing Shed
- Pole Barn
- Produce Stand
- Milk Barn

Construction Phasing

The 180,000 square foot warehouse would be constructed in three phases, with each phase consisting of a 300-foot by 200-foot section. All other buildings and site improvements would be completed in the first construction phase. Construction is expected to commence by spring of 2017. Construction of the initial phase, including all buildings described above, and the first 200-foot by 300-foot section of the warehouse, is expected to require 4 months. Prior to completion of the first phase of construction, the dirt yard will be used to receive and ship watermelons.

Project Location

The project site is generally located on the west side of N. Washington Road, south of Fulkerth Road, at the western boundary of the City of Turlock City Limits. The project site address is 1301 N. Washington Road, Turlock, California 95380. N. Washington Road is also the western boundary of the Westside Industrial Specific Plan (WISP), a City of Turlock adopted specific plan. While the project site is not within the WISP, the entire N. Washington Road right-of-way is within the WISP. The site consists of the following two Assessor's Parcels: APN 023-039-017 and 023-039-018. In Chapter Two, Figure 2-1 provides the Regional Vicinity Map and Figure 2-2 provides the Local Vicinity Map.

Potential Areas of Concern and Issues to be Resolved

A public information/scoping meeting was held on September 17, 2013 at Turlock City Hall to receive comments on what should be included in the EIR. As allowed by CEQA, an Initial Study was not prepared. Based on the NOP and written comments (no verbal comments were received) received during the scoping process from public agencies, the following were identified as potential areas of concern:

- Archaeological resources and Native American resources (Native American Heritage Commission)
- General water quality issues (Central Valley Regional Water Quality Control Board)
- Air quality issues (San Joaquin Valley Air Pollution Control District)
- Aesthetics, agricultural resources, air quality, biological resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, population/housing/recreation, public services, transportation/traffic, and utilities and service systems (City of Turlock)

Alternatives to the Project

The California Environmental Quality Act (CEQA) requires that an EIR include a discussion of reasonable project alternatives that would "feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives" (CEQA Guidelines Section 15126.6). See Chapter Four – Evaluation of Alternatives. The following alternatives have been determined to represent a reasonable range of alternatives (plus the no project alternatives) that have the potential to feasibly or partially attain objectives of the project but avoid or substantially lessen any of the significant effects of the project:

No Project – CEQA Guidelines Section 15126.6(e) requires every EIR to include a “No Project Alternative.” “The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.” In general, this alternative should discuss “existing conditions...as well as what would be reasonably expected to occur in the foreseeable future if

the project were not approved, based on current plans and consistent with available infrastructure and community services.”

The manner in which a No Project Alternative shall be composed depends on the nature of the project at issue. The No Project Alternative for this project is the land use that would likely result if the use permit application is denied, thereby allowing only the land uses and activities that are consistent with the A-2-40 General Agriculture zone. This definition is based on CEQA Guidelines Section 15126.6(e), which defines the No Project Alternative. Relevant excerpts follow (in italics, with emphasis added in bold).

*(2) The “no project” analysis shall discuss the existing conditions at the time the notice of preparation is published, ... **as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved**, based on current plans ...*

*(3) (B) If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the “no project” alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental efforts of the property remaining in the existing state against environmental effects which would occur if the project is approved... However, where failure to proceed with the project will not result in preservation of existing conditions, **the analysis should identify the practical result of the project’s non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment.***

*(3)(C) ... the lead agency should proceed to analyze the impact of the no project alternative **by projecting what would reasonably be expected to occur in the foreseeable future if the project were not approved**, based on current plans and consistent with available infrastructure and community services.*

In conclusion, CEQA does not direct that the “no project” condition be a return to previous conditions, but rather that it describe what is reasonably expected to occur if the proposed project is not approved. In this case, the project proponent has indicated that he would implement those uses and activities that are permitted in the A-2-40 General Agriculture zone. Under this alternative, the existing site improvements and structures would remain and the current activities on the site would remain, in compliance with County regulations. Following are the key elements of the No Project Alternative:

1. Necessary permits will have been obtained for work that has been done at the site.
2. No warehouse would be constructed, so no sorting, storage, packing and shipping of produce would take place.
3. New buildings and building additions that were installed without a County building permit will have received permits and remains, as follows:
 - Office in the single family dwelling

- Agricultural barn addition
 - New steel building roof
 - Milk barn
4. Site improvements that were completed without County permits will have received permits and remain, as follows:
- Erosion control plan will have been implemented to the satisfaction of Stanislaus County.
 - Dust control plan will have been implemented to the satisfaction of San Joaquin Valley APCD.
 - Fulkerth Road driveway will have been removed and ground restored to previous condition.
 - Washington Road driveway will have received a permit and remains in place.

The No Project Alternative results in 9 less impacts than the proposed project, 2 greater impacts, and 2 impacts that are the same as the proposed project. It would achieve one project objective, which pertains to compatible architectural and site design with the surrounding agricultural uses. However, it would not achieve any of the other objectives.

WISP Alternative Site – Under this alternative, the project proponent would develop the proposed project on roughly 27-acre parcel within Turlock’s Westside Industrial Specific Plan (WISP). A survey of vacant sites provided by the City indicates that there are currently multiple vacant sites that would be available for development. Development of a site within the WISP would be limited to the sorting, storage, packing and shipping of produce within a new 180,000 square foot warehouse. No crops would be produced on the site.

The WISP Site Alternative results in 4 less impacts and 9 impacts that are the same as the proposed project. It achieves all but three of the project objectives, as follows: 1) It would not combine growing, storage, packing, and shipping at one location, because growing would not occur in the WISP, 2) The financial success of the project at this site would be challenged by higher land acquisition and site development costs associated with the WISP, and 3) The project would not generate property taxes for the County.

Reduced Greenhouse Gas Emissions – This alternative requires reductions in certain aspects of the proposed warehouse construction and operation in order to reduce GHG emissions below the threshold of significance.

The Reduced GHG Alternative results in 3 less impacts and 10 impacts that are the same as the proposed project. It would achieve all of the project objectives, with the possible exception of achieving financial success. This is due to the higher cost of development and operation that may result from implementing GHG reduction measures.

CEQA requires a lead agency to identify the "environmentally superior alternative" and, in cases where the "No Project" Alternative is environmentally superior to the proposed project, the environmentally superior development alternative must be identified.

Among the three alternatives, the No Project Alternative results in the greatest reduction in impacts, and could be considered superior from an environmental standpoint. However, it also results in 2 impacts that are greater than that of the proposed project. The Reduced GHG Alternative has impacts that are most similar to the Proposed Project and results in the fewest reductions in impacts. In conclusion, other than the No Project Alternative, the WISP Site Alternative is marginally superior in terms of environmental impact. With regard to achievement of the 8 project objectives the No Project Alternatives meets only 1 of 8, the WISP Site Alternative meets 5 of 8, and the Reduced GHG Alternative meets 7 of 8.

Unavoidable Significant Environmental Effects

The project impact analysis, as detailed in Chapter Three of this Draft EIR, concluded that the following impacts at the project level would remain significant, after mitigation, for the proposed project. There were no significant unavoidable cumulative impacts.

Air Quality

Impact #3.3-1 – Conflict with or obstruct implementation of any applicable air quality plan.

Impact #3.3-2 – Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Greenhouse Gas Emissions

Impact #3.7-1 – Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Impact #3.7-2 - Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG.

Noise

Impact #3.11-1 – Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Summary of Impacts and Mitigation Measures

Section 15123(b)(1) of the *CEQA Guidelines* provides that this summary shall identify each significant effect with proposed mitigation measures that would reduce or avoid that effect. This information is summarized in Table ES-1, "Summary of Potentially Significant Impacts, Proposed Mitigation Measures and Level of Significance after Mitigation". With the exception of air quality, greenhouse gas emissions and noise, all identified impacts are either less than significant in relation to identified significance threshold levels or can be mitigated to a less than significant level through recommended mitigation measures.

**Table ES-1
Summary of Potentially Significant Impacts, Proposed Mitigation Measures, and Level of Significance After Mitigation**

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
3.1 Air Quality					
3.1-1	Have a substantial effect on a scenic vista, or substantially damage a scenic resource.		Less Than Significant	No mitigation measures are required.	
3.1-2	Substantially degrade the existing visual character or quality of the site and its surroundings which are open to public view.		Less Than Significant	No mitigation measures are required.	
3.1-3	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	3.1-3	Potentially Significant	<ul style="list-style-type: none"> ▪ Lighting shall employ shielding that would direct light in a downward direction. ▪ Lighting shall generally occur at intersections, areas of pedestrian activity, and building entrances, and be minimized elsewhere. ▪ Lighting shall be designed and located to minimize glare and the direct view of light sources. ▪ Metal halide, incandescent, or color-balanced fluorescent fixtures shall be employed. Low pressure sodium fixtures are prohibited. 	Less Than Significant
3.2 Agricultural Resources					
3.2-1	Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses.		No Impact	No mitigation measures are required.	

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
3.2-2	Conflict with existing zoning for agricultural use, or a Williamson Act Contract.		No Impact	No mitigation measures are required.	
3.2-3	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.		Less Than Significant	No mitigation measures are required.	
3.2-4	Conflict with existing zoning for, or cause rezoning of forest land, timberland or timberland zoned Timberland Production.		Less Than Significant	No mitigation measures are required.	
3.2-5	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?		No Impact	No mitigation measures are required.	
3.3 Air Quality					
3.3-1	Conflict with or obstruct implementation of any applicable air quality plan.		Significant and Unavoidable	No feasible and effective mitigation measures are available.	
3.3-2	Violate any air quality standard or contribute substantially to an existing or projected air quality violation.		Significant and Unavoidable	No feasible and effective mitigation measures are available.	
3.3-3a	Violate any air quality standard or contribute substantially to an existing or projected air quality violation associated with carbon monoxide hotspots.		Less Than Significant	No mitigation measures are required.	

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
3.3-3b	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable national or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).		Significant and Unavoidable	No feasible and effective mitigation measures are available.	
3.3-4	Expose sensitive receptors to substantial pollutant concentrations.		Less Than Significant	No mitigation measures are required.	
3.3-5	Create objectionable odors affecting a substantial number of people.		Less Than Significant	No mitigation measures are required.	
3.4 Biological Resources					
3.4-1	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	3.4-1a	Potentially Significant	1. In accordance with the <i>Staff Report on Burrowing Owl Mitigation</i> (CDFW 2012), pre-construction surveys shall be conducted to determine the presence of occupied burrows if ground clearing or construction activities will be initiated during the nesting season or during the non-breeding season. The portion of the project site on which construction is to take place and potential nesting areas within 500 feet of the proposed construction area shall be surveyed no more than 30 days prior to the initiation of construction. Surveys shall be performed by a qualified biologist or ornithologist to verify the presence or absence of nesting birds. Construction shall not occur within a 500 foot buffer surrounding active nests of raptors or a 250 foot buffer surrounding active nests of migratory birds. If construction within these buffer areas is required or if nests must be removed to allow continuation of construction, then approval and specific removal	Less Than Significant

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
				<p>methodologies shall be obtained from CDFW.</p> <p>2. If during pre-construction nest surveys, burrowing owls are found to be present, the following measures shall be implemented:</p> <ul style="list-style-type: none"> a. Compensation for the loss of burrowing owl habitat will be negotiated with the responsible wildlife agencies. Appropriate mitigation may include participation in an approved mitigation bank, establishing a conservation easement, or other means acceptable to the responsible agency; b. Exclusion areas will be established around occupied burrows in which no construction activities would occur. During the non-breeding season (September 1 through January 31), the exclusion area would extend 160 feet around any occupied burrows. During the breeding season of burrowing owls (February 1 through August 31), exclusion areas of 250 feet surrounding occupied burrows would be installed; and c. If construction must occur within these exclusion areas, passive relocation of burrowing owls may be implemented as an alternative, but only during the non-breeding season and only with the concurrence of the CDFW. Passive relocation of burrowing owls would be implemented by a qualified biologist using accepted techniques. Burrows from which owls had been relocated shall be excavated using hand tools and under direct supervision of a qualified biologist. 	

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
		3.4-1b	Potentially Significant	<p>A Swainson's hawk survey shall be completed within 0.5 mile of the project site. If potential nests are located within this search radius, those nests must be monitored for activity on a routine and repeating basis throughout the breeding season, or until a Swainson's hawk or other raptor species is verified to be using each nest. A total of up to 10 visits shall be made to each nest: one between January and April to identify nests, three in April, three in May, and three between June 1 and July 15. To meet the minimum level of protection for the species, surveys shall be completed for at least two survey periods immediately prior to a project's initiation. All surveys shall be conducted in accordance with the <i>Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California</i> (CDFG 1994), which includes the following guidelines:</p> <ol style="list-style-type: none"> 1. A pre-construction survey shall be conducted to determine the presence of nesting birds if ground clearing or construction activities will be initiated during the breeding season (February 15 through September 15). The project site and potential nesting areas within 500 feet of the site shall be surveyed 14 to 30 days prior to the initiation of construction. Surveys will be performed by a qualified biologist or ornithologist to verify the presence or absence of nesting birds. Construction shall not occur within a 500 foot buffer surrounding nests of raptors or a 250 foot buffer surrounding nests of migratory birds. If construction within these buffer areas is required or if nests must be removed to allow continuation of construction, then approval will be obtained from California Department of Fish and Wildlife (CDFW); 	Less Than Significant

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation																														
				<p>2. All trees which are suitable for Swainson's hawk nesting that are within 2,640 feet of construction activities shall be inspected for nests by a qualified biologist;</p> <p>3. If potential Swainson's hawk nests are located, surveys to determine whether Swainson's hawks use those nests will be determined by conducting surveys at the following intensities, depending upon dates of initiation of construction:</p> <table border="1"> <thead> <tr> <th>Construction start</th> <th>Survey period</th> <th>Number of surveys</th> </tr> </thead> <tbody> <tr> <td>1 January to 20 March</td> <td>1 January to 20 March</td> <td>1</td> </tr> <tr> <td>21 March to 24 March</td> <td>1 January to 20 March</td> <td>1</td> </tr> <tr> <td></td> <td>21 March to 24 March</td> <td>Up to 3</td> </tr> <tr> <td>24 March to 5 April</td> <td>1 January to 20 March</td> <td>1</td> </tr> <tr> <td></td> <td>21 March to 5 April</td> <td>3</td> </tr> <tr> <td></td> <td>21 March to 5 April</td> <td>3</td> </tr> <tr> <td>6 April to 9 April</td> <td>6 April to 9 April</td> <td>Up to 3</td> </tr> <tr> <td></td> <td>1 January to 20 March</td> <td>1 (if all 3 surveys are performed between 6 and 9 April, then this survey need not be conducted)</td> </tr> <tr> <td>10 April to 30 July</td> <td>21 March to 5 April</td> <td>3</td> </tr> </tbody> </table>	Construction start	Survey period	Number of surveys	1 January to 20 March	1 January to 20 March	1	21 March to 24 March	1 January to 20 March	1		21 March to 24 March	Up to 3	24 March to 5 April	1 January to 20 March	1		21 March to 5 April	3		21 March to 5 April	3	6 April to 9 April	6 April to 9 April	Up to 3		1 January to 20 March	1 (if all 3 surveys are performed between 6 and 9 April, then this survey need not be conducted)	10 April to 30 July	21 March to 5 April	3	
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		3.4-1c	Potentially Significant	<p>A pre-construction survey shall be performed on the project site in areas where there is a potential for nesting raptors and nesting migratory birds to occur if construction occurs during the breeding season (loosely defined as February 15 to August 15). These include all areas of the project site that contain or are within 500 feet of power poles or trees that are suitable for the establishment of raptor nests. These areas should also include non-native annual grassland habitat and unharvested alfalfa and grain crops, which provide potential breeding habitat for ground-nesting birds such as northern harriers, horned larks, and other migratory ground-nesting birds. The pre-construction survey shall be performed within 14 days of construction to identify active nests and mark those nests for avoidance. During the nesting period, raptor nests should be avoided by 500 feet and all other migratory bird nests should be avoided by 250 feet.</p>	Less Than Significant												

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation								
		3.4-1d	Potentially Significant	<p>To preclude potential project-related impacts to the San Joaquin kit fox, a series of avoidance and minimization measures shall be implemented in accordance with the <i>Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance</i> (USFWS 2011). The measures that are listed below have been excerpted from these guidelines and will protect the San Joaquin kit fox from direct mortality or den destruction.</p> <p>1. Pre-construction surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities, or any project activity likely to impact the San Joaquin kit fox. Exclusion zones shall be placed around dens in accordance with USFWS recommendations using the following:</p> <table border="1"> <tr> <td>Potential Den</td> <td>50 foot radius</td> </tr> <tr> <td>Known Den</td> <td>100 foot radius</td> </tr> <tr> <td>Natal/Pupping Den (Occupied and Unoccupied)</td> <td>Contact U.S. Fish and Wildlife Service for guidance</td> </tr> <tr> <td>Atypical Den</td> <td>50 foot radius</td> </tr> </table> <p>If dens must be removed, they shall be appropriately monitored and excavated by a trained wildlife biologist. Replacement dens would be required. Destruction of natal dens and other “known” kit fox dens shall not occur until authorized by USFWS.</p> <p>2. Project-related vehicles shall observe a 20-mph speed limit in all project areas, except on County roads and State and federal highways; this is</p>	Potential Den	50 foot radius	Known Den	100 foot radius	Natal/Pupping Den (Occupied and Unoccupied)	Contact U.S. Fish and Wildlife Service for guidance	Atypical Den	50 foot radius	Less Than Significant
Potential Den	50 foot radius												
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Atypical Den	50 foot radius												

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
				<p>particularly important at night when kit foxes are most active. Nighttime construction shall be avoided, unless the construction area is appropriately fenced to exclude kit foxes. The area within any such fence shall be determined to be uninhabited by San Joaquin kit foxes prior to initiation of construction. Off-road traffic outside of designated project areas shall be prohibited.</p> <p>3. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of the project, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals.</p> <p>4. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipe, becoming trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the USFWS has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved once to remove it from the path of construction activity, until the fox has escaped.</p>	

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
				<ol style="list-style-type: none"> <li>5. All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and removed at least once a week from a construction or project Site. <li>6. No firearms shall be allowed on the project site during the construction phase. <li>7. To prevent harassment, mortality of kit foxes or destruction of dens by dogs or cats, no pets shall be permitted on the project site. <li>8. Use of rodenticides and herbicides in project areas shall be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and federal legislation, as well as additional project-related restriction deemed necessary by the USFWS. If rodent control must be conducted, zinc phosphide shall be used because of a proven lower risk to kit fox. <li>9. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured, or entrapped kit fox. The representative will be identified during the employee education program and their name and telephone number shall be provided to the USFWS. 	

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
				<p>10. An employee education program shall be conducted for any project that has anticipated impacts to kit fox or other endangered species. The program shall consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and/or agency personnel involved in the project. The program shall include the following: A description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information shall be prepared for distribution to the previously referenced people and anyone else who may enter the project site.</p> <p>11. Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc. shall be re-contoured if necessary, and revegetated to promote restoration of the area to pre-project conditions. An area subject to “temporary” disturbance means any area that is disturbed during the project, but after project completion will not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas shall be determined on a site-specific basis in consultation with the USFWS, California Department of Fish and Wildlife (CDFW), and revegetation experts.</p>	

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
				<p>12. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape, or the USFWS shall be contacted for guidance.</p> <p>13. Any contractor, employee, or military or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFW immediately in the case of a dead, injured, or entrapped kit fox. The CDFW contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or Mr. Paul Hofmann, the wildlife biologist, at (530) 934-9309. The USFWS shall be contacted at the numbers below.</p> <p>14. The Sacramento USFWS and CDFW shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The USFWS contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers below. The CDFW contact is Mr. Paul Hofmann at 1701 Nimbus Road, Suite A, Rancho Cordova, California 95670, (530) 934-9309.</p> <p>15. New sightings of kit foxes shall be reported to the California Natural Diversity Database (CNDDDB). A copy of the reporting form and a topographic map clearly marked with the</p>	

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
				<p>location of where the kit fox was observed shall also be provided to the USFWS at the address below.</p> <p>Any project-related information required by the USFWS or questions concerning the above conditions or their implementation may be directed in writing to the U.S. Fish and Wildlife USFWS at:</p> <p>Endangered Species Division 2800 Cottage Way, Suite W2605 Sacramento, California 95825-1846 (916) 414-66200 or (916) 414-6600</p>	
3.4-2	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.		No Impact	No mitigation measures are required.	
3.4-3	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.		No Impact	No mitigation measures are required.	
3.4-4	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or		No Impact	No mitigation measures are required.	

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
	migratory wildlife corridors, or impede the use of native wildlife nursery sites.				
3.4-5	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.		No Impact	No mitigation measures are required.	
3.4-6	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.		No Impact	No mitigation measures are required.	
3.5 Cultural Resources					
3.5-1	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.	3.5-1a	Potentially Significant	In accordance with State law, if any historical resources are discovered during project-related activities, all work is to stop and the lead agency and a qualified professional are to be consulted to determine the importance and appropriate treatment of the find. If Native American remains are found the County Coroner and the Native American Heritage Commission, Sacramento (916-653-4082) is to be notified immediately for recommended procedures.	Less Than Significant
		3.5-1b	Potentially Significant	In the event that a historical resources consultant is retained, the firm or individual shall be responsible for submitting any report of findings prepared for the proposed project to the Central California Information Center, including one copy of the narrative report and two copies of any records that document historical resources found as a result of field work.	Less Than Significant

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
3.5-2	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	3.5-1a & 3.5-1b	Potentially Significant	Implementation of Mitigation Measures #3.5-1a and #3.5-1b. No additional mitigation measures are required.	Less Than Significant
3.5-3	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature of paleontological or cultural value.	3.5-1a & 3.5-1b	Potentially Significant	Implementation of Mitigation Measures #3.5-1a and #3.5-1b. No additional mitigation measures are required.	Less Than Significant
3.5-4	Disturb any human remains, including those interred outside of formal cemeteries.	3.5-1a & 3.5-1b	Potentially Significant	Implementation of Mitigation Measures #3.5-1a and #3.5-1b. No additional mitigation measures are required.	Less Than Significant
3.6 Geology and Soils					
3.6-1	Exposure of people and structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, ground failure, or landslides.		Less Than Significant	No mitigation measures are required.	
3.6-3	Result in potential hazards due to construction on unstable soils.		Less Than Significant	No mitigation measures are required.	
3.6-2	Result in substantial soil erosion or the loss of topsoil.		Less Than Significant	No mitigation measures are required.	
3.6-4	Result in potential hazards due to construction on expansive soils.		Less Than Significant	No mitigation measures are required.	
3.6-5	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.		Less Than Significant	No mitigation measures are required.	

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
3.7 Greenhouse Gases					
3.7-1	Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	3.7-1	Potentially Significant	The applicant shall implement an employer-based trip reduction program in compliance with SJVAPCD Rule 9410. The trip reduction program may include ride-sharing information, carpools, and vanpools.	Significant and Unavoidable
3.7-2	Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG.	3.7-1	Potentially Significant	Implement Mitigation Measure #3.7-1.	Significant and Unavoidable
3.8 Hazards & Hazardous Materials					
3.8-1	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	3.8-2a & 3.8-2b	Less Than Significant	Implement Mitigation Measures #3.8-2a and #3.8-2b.	Less Than Significant
3.8-2	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	3.8-2a	Less Than Significant	During construction of the proposed project, work areas and areas with heavy foot traffic inside the eastern, unpaved portion of the barn/packing shed shall be surfaced to reduce worker exposure to dust in this area, where concentrations of 4,4'-DDT (2,600 micrograms per kilogram [ug/kg]) and 4,4'-DDD (240 ug/kg) were detected in soil.	Less Than Significant
		3.8-2b	Less Than Significant	Before building permit issuance, the owner shall hire a biologist to complete a Pest Management Plan which will make recommendations for addressing both pest-birds and rodents inside and around the warehouse. The plan shall be submitted to the Stanislaus County Environmental Health Department and made available to employees at the warehouse.	Less Than Significant

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
3.8-3	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.		Less Than Significant	No mitigation measures are required.	
3.8-4	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.		Less Than Significant	No mitigation measures are required.	
3.8-5	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?		Less Than Significant	No mitigation measures are required.	
3.8-6	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?		Less Than Significant	No mitigation measures are required.	
3.8-7	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	3.8-7	Potentially Significant	The applicant shall notify the City of Turlock's fire, sheriff, and ambulance service which serve the proposed project site, as well as the Office of Emergency Services (OES) Division (Modesto Regional Fire Authority) of the proposed project and construction dates. This notification shall occur two weeks prior to the start of construction.	Less Than Significant

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
3.8-8	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?		Less Than Significant	No mitigation measures are required.	
3.9 Hydrology/ Water Quality					
3.9-1	Violate any water quality standards or waste discharge requirements.		Less Than Significant	No mitigation measures are required.	
3.9-2	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).		Less Than Significant	No mitigation measures are required.	
3.9-6	Otherwise substantially degrade water quality.		Less Than Significant	No mitigation measures are required.	
3.9-3	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-site.		Less Than Significant	No mitigation measures are required.	

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
3.9-4	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.		Less Than Significant	No mitigation measures are required.	
3.9-5	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	3.9-5	Potentially Significant	Prior to issuance of grading and building permits, the applicant shall meet with the Stanislaus County Public Works Department to determine the appropriate BMPs for filtration of storm water and to determine the best method of treatment and required size of retention basin.	Less than Significant
3.9-7	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.		Less Than Significant	No mitigation measures are required.	
3.9-8	Place within a 100-year flood hazard area structures which would impede or redirect flood flows.		Less Than Significant	No mitigation measures are required.	
3.9-9	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.		No Impact	No mitigation measures are required.	
3.9-10	Inundation by seiche, tsunami, or mudflow.		No Impact	No mitigation measures are required.	

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
3.10 Land Use and Planning					
3.10-1	Physically divide an established community.		Less Than Significant	No mitigation measures are required.	
3.10-2	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.		Less Than Significant	No mitigation measures are required.	
3.10-3	Conflict with any applicable habitat conservation plan or natural community conservation plan?		Less Than Significant	No mitigation measures are required.	
3.11 Noise					
3.11-1	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.		Significant and Unavoidable	No mitigation measures are available.	Significant and Unavoidable
3.11-2	Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels.		Less Than Significant	No mitigation measures are required.	
3.11-3	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.		Less Than Significant	No mitigation measures are required.	
3.11-4	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.		Less Than Significant	No mitigation measures are required.	

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
3.11-5	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.		Less Than Significant	No mitigation measures are required.	
3.11-6	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.		No Impact	No mitigation measures are required.	
3.12 Public Services and Utilities					
3.12-1	Increased demand for fire protection services and personnel.	3.12-1	Potentially Significant	The access to the site from Washington Road shall be provided with radio frequency gate opening devices (i.e. "Click-to-enter") in addition to the standard police/fire bypass keyway. Manually operated gates across required fire access roadways are prohibited.	Less Than Significant
3.12-2	Increased demand for law enforcement services.	3.12-1	Less Than Significant	No mitigation measures are required.	
3.12-3	Increased demand on public schools.		No Impact	No mitigation measures are required.	
3.12-4	Increased demand on parks and recreation.		No Impact	No mitigation measures are required.	
3.12-5	Increased demand on library services.		No Impact	No mitigation measures are required.	
3.12-6	Increased demand on public protection facilities.		Less Than Significant	No additional mitigation measures are required.	
3.12-7	Increased demand on paramedic services.		Less Than Significant	No mitigation measures are required.	

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
3.12-8	Exceed wastewater treatment requirements of the Regional Water Quality Control Board, Central Valley Region.		Less Than Significant	No mitigation measures are required.	
3.12-9	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.		No Impact	No mitigation measures are required.	
3.12-10	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.		Less Than Significant	No mitigation measures are required.	
3.12-11	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.		Less Than Significant	No mitigation measures are required.	
3.12-12	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.		Less Than Significant	No mitigation measures are required.	
3.12-13	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.		Less Than Significant	No mitigation measures are required.	

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
3.12-14	Comply with federal, state, and local statutes and regulations related to solid waste.		Less Than Significant	No mitigation measures are required.	
3.13 Transportation and Traffic					
3.13-1	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.	3.13-1a	Potentially Significant	The project shall pay the Traffic Impact Fees as set forth by Stanislaus County.	Less Than Significant
		3.13-1b	Potentially Significant	The applicant shall pay the City of Turlock Capital Facility Development Fees which provides for the construction of Public Facilities and to purchase capital items to allow for City services. The City's fees change quarterly, therefore the amount will be determined with approval of the project.	Less Than Significant
		3.13-1c	Potentially Significant	The applicant shall install half street improvements along the project frontage to meet the future lane configurations along Washington Road. This will also include addition of a northbound left turn lane at the Washington Road/Blue Diamond/Project Access intersection. These improvements shall also include traffic signal modifications to the existing signal. A residential driveway should also be constructed on Washington Road to provide access for the single family residence that will remain. This residence is located about 350 feet south of the Blue Diamond/project driveway.	Less Than Significant

Impact #	Impact	Mitigation #	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
3.13-2	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	3.13-1a thru 3.13-1c	Potentially Significant	Implement Mitigation Measures #3.13-1a through #3.13-1c.	Less Than Significant
3.13-3	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.		No Impact	No mitigation measures are required.	
3.13-4	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses		Less Than Significant	No mitigation measures are required.	
3.13-5	Result in inadequate emergency access.	3.13-5	Potentially Significant	Proposed project site plans shall be reviewed by the City fire and police departments to ensure adequate emergency access.	Less Than Significant
3.13-6	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	3.13-1c	Less Than Significant	Implement Mitigation Measure #3.13-1c.	Less Than Significant
3.13-7	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).	3.13-1c	Potentially Significant	Implement Mitigation Measure #3.13-1c.	Less Than Significant

CHAPTER ONE
INTRODUCTION

CHAPTER ONE – INTRODUCTION

This section of the Environmental Impact Report (EIR) briefly describes the proposed project, delineates the procedure and methodology for environmental evaluation of the project, and outlines the contents of the EIR.

1.1 Overview of the CEQA Process

This Draft Environmental Impact Report (Draft EIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of the Washington Road Warehouse project (State Clearinghouse No. 2013082091). This document is prepared in conformance with CEQA (California Public Resources Code, Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.). This Draft EIR is intended to serve as an informational document for the public agency decision makers and the public regarding the proposed project.

1.1.1 PROJECT OVERVIEW

The Project proponent, Dan Avila & Sons, proposes to construct a 180,000 square foot warehouse (in three phases), also utilizing an existing 5,500 square foot pole barn and associated facilities for receiving, handling, packaging and shipping harvested crops (water melons, sweet potatoes, beans, wheat, pumpkins and squash) on two parcels totaling approximately 61.7 acres in unincorporated Stanislaus County.

In accordance with County requirements, the proposed operation would require a use permit. In its review of use permit application (No. PLN2012-0017), the County commissioned the preparation of an air quality/greenhouse gas emissions study. That study determined that projected air emissions associated with vehicle traffic from operation of the proposed warehouse would result in environmental impacts that cannot be mitigated to a level of less than significant. Accordingly, it was determined that an environmental impact report is required in order for further consideration of the use permit application to occur.

1.1.2 TYPE AND PURPOSE OF THIS DRAFT EIR

According to Section 15121(a) of the CEQA Guidelines, the purpose of an EIR is to:

Inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

Because detailed information has been provided describing the construction and operational aspects of the project, a Project-level EIR has been prepared.

Purpose and Authority

This Draft EIR provides a project-level analysis of the environmental effects of the proposed project. The environmental impacts of the proposed project are analyzed in the EIR to the degree of specificity appropriate, in accordance with CEQA Guidelines Section 15146. This document addresses the potentially significant adverse environmental impacts that may be associated with the construction and operation of the proposed project. It also identifies appropriate and feasible mitigation measures and alternatives that may be adopted to significantly reduce or avoid these impacts.

CEQA requires that an EIR contain, at a minimum, certain specific elements. These elements are contained in this Draft EIR and include:

- Table of Contents
- Introduction
- Executive Summary
- Project Description
- Environmental Setting, Significant Environmental Impacts, and Mitigation Measures
- Cumulative Impacts
- Significant Unavoidable Adverse Impacts
- Alternatives to the Proposed Project
- Growth-Inducing Impacts
- Effects Found Not To Be Significant
- Areas of Known Controversy

1.1.3 LEAD AGENCY DETERMINATION

Stanislaus County is designated as the lead agency for the project. CEQA Guidelines Section 15367 defines the lead agency as “. . . the public agency, which has the principal responsibility for carrying out or approving a project.” Other public agencies may use this Draft EIR in the decision-making or permit process and consider the information in this Draft EIR along with other information that may be presented during the CEQA process.

This Draft EIR was prepared by Quad Knopf, an environmental consultant. Prior to public review, it was extensively reviewed and evaluated by Stanislaus County. This Draft EIR reflects the independent judgment and analysis of Stanislaus County, as required by CEQA. Organizations and persons consulted in the preparation of this Draft EIR are listed in Chapter Eight.

1.2 Scope of the EIR

This Draft EIR addresses the potential environmental effects of the proposed project. Stanislaus County issued a Notice of Preparation (NOP) for the proposed project on August 30, 2013, which circulated between August 31, 2013 and October 2, 2013 for the statutory 30-day public review period. The scope of this Draft EIR includes the potential environmental impacts

identified in the NOP and issues raised by agencies in the public response to the NOP. The NOP is contained in Appendix A of this Draft EIR.

Six comment letters were received in response to the NOP. Copies of the written comments received during the public review period are contained in Appendix A. This Draft EIR has taken into consideration the comments received from the various agencies in response to the NOP. Table 1-1 summarizes the issues identified by the commenting agencies, along with a reference to the section of this Draft EIR where the issues are addressed.

**Table 1-1
NOP Comment Letters**

Commenting Agency/Person	Comment Type/Summary	Issue Addressed in:
San Joaquin Valley Air Pollution Control District David Warner, Director of Permit Services	Air Quality District's attainment and non-attainment status under State and federal regulations was noted. Advisory provided regarding required air quality study, including odor analysis and health analysis, and recommended mitigation. Applicable District rules and regulations also were provided.	Section 3.3 Air Quality
California Central Valley Regional Water Quality Control Board Trevor Cleak, Environmental Scientist	Water resources Advisory regarding standard State and federal permit requirements associated with ground disturbance and storm water release.	Section 3.9 Hydrology and Water Quality
Native American Heritage Commission Dave Singleton, Program Analyst	Cultural Lead agency is required to perform a record search per state guidelines in order to assess whether the proposed project will have an adverse impact on cultural or archeological resources. Requested that lead agency contact the Native American Heritage Commission (NAHC) and Native American contacts provide by the NAHC. Provided recommendations to include in mitigation monitoring plan in the event cultural and/or archeological finds are made.	Section 3.5 Cultural Resources
State of California Governor's Office of Planning and Research (OPR) Scott Morgan, Director	General OPR has identified the agencies involved with the project and issues that may be impacted by the project. OPR requested that copies of responses to the NOP from agencies also be sent to the State Clearinghouse.	Not Applicable
City of Turlock, Development Services, Planning Division Debra Whitmore, Deputy	Multiple topics addressed. Conversion of important farmland to non-agricultural use, criteria pollutants and	Section 3.1 Aesthetics, Section 3.2 Agricultural Resources, Section 3.3 Air Quality, Section

Commenting Agency/Person	Comment Type/Summary	Issue Addressed in:
Director	greenhouse gas emissions, noise, water quality, and groundwater quality and supply. Noted that additional information is needed on the site plan to clarify the project description. Asked for additional information regarding proposed equipment. Asked for clarification regarding proposed chemicals in wash water. Asked that the EIR analyze impacts to Population and Housing as well as Recreation. Requested analysis of aesthetics, agricultural land conversion, air emissions, biological resources, septic system suitability, hazards associated with on-site storm water retention, wastewater discharge, vehicle and machinery noise, impact on City of Turlock Police and Fire services, and traffic.	3.4 Biological Resources, Section 3.6 Geology and Soils, Section 3.7 Greenhouse Gases, Section 3.8 Hazards and hazardous Materials, Section 3.9 Hydrology and Water Quality, Section 3.11 Noise, Section 3.12 Public Services and Utilities, Section 3.13 Transportation and Traffic
County of Stanislaus Environmental Review Committee Tera Chumley, Senior Management Consultant	Hazards/hazardous materials, Transportation/traffic Requested that a Phase I Environmental Site Assessment be completed. Asked that the traffic study assessment traffic based on the project driveway on N. Washington Road.	Section 3.8 Hazards and Hazardous Materials and Section 3.13 Transportation and Traffic

Source: County of Stanislaus, Responses to NOP for the Avila & Sons North Washington Road Warehouse Project, 2013

1.2.1 SCOPING MEETING

Pursuant to CEQA Guidelines Section 15082(c)(1), Stanislaus County held a scoping meeting for the proposed project on Tuesday, September 17, 2013 at Turlock City Hall. No citizens or outside agencies attended the meeting, thus there were no verbal or written comments submitted at the scoping meeting.

1.2.2 ENVIRONMENTAL ISSUES DETERMINED NOT TO BE SIGNIFICANT

Stanislaus County determined that an EIR would be required for this project and issued a Notice of Preparation (NOP) on August 30, 2013 (see Appendix A), to the State Clearinghouse, responsible agencies, and interested parties. An Initial Study was not prepared, as permitted by CEQA. The NOP process is used to help determine the scope of the environmental issues to be addressed in the Draft EIR. Based on this process, certain environmental categories were identified as having the potential to result in significant impacts. Issues considered Potentially Significant are addressed in this Draft EIR. Issues identified as Less Than Significant or having No Impact are not addressed.

The NOP identified topical areas that were determined not to be significant. An explanation of why each area is determined not to be significant is provided in Chapter 7.0, Effects Found To Be Less Than Significant. These topical areas are as follows:

- Mineral Resources
- Population and Housing
- Recreation

1.2.3 POTENTIALLY SIGNIFICANT ENVIRONMENTAL ISSUES

The NOP found that the following topical areas may contain potentially significant environmental issues that will require further analysis in the Draft EIR. These sections are as follows:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gases
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Land Use and Planning
- Noise
- Public Services and Utilities
- Transportation and Traffic

1.3 Organization of the EIR

This Draft EIR is organized into the following main sections:

Section ES: Executive Summary. This section includes a summary of the proposed project and alternatives to be addressed in the Draft EIR. A brief description of the areas of controversy and issues to be resolved, and overview of the Mitigation Monitoring and Reporting Program, in addition to a table that summarizes the impacts, mitigation measures, and level of significance after mitigation, are also included in this section.

Chapter One: Introduction. This section provides an introduction and overview describing the purpose of this Draft EIR, its scope and components, and its review and certification process.

Chapter Two: Project Description. This section includes a detailed description of the proposed project, including its location, site, and project characteristics. A discussion of the project objectives, intended uses of the Draft EIR, responsible agencies, and approvals that are needed for the proposed project are also provided.

Chapter Three: Environmental Impact Analysis. This section analyzes the environmental impacts of the proposed project. Impacts are organized into major topic areas. Each topic area includes a description of the environmental setting, methodology, significance criteria, impacts, mitigation measures, and significance after mitigation. The specific environmental topics that are addressed within Section 3 are as follows:

- **Section 3.1 – Aesthetics:** Addresses the potential visual impacts of development and the overall increase in illumination produced by the project.
- **Section 3.2 – Agricultural Resources:** Describes the existing agricultural resources and potential environmental effects from project implementation on the project site and its surrounding area. .
- **Section 3.3 – Air Quality:** Provides an evaluation of the potential air quality impacts that would be caused by implementation of the proposed project
- **Section 3.4 – Biological Resources:** Addresses the project’s potential impacts on habitat, vegetation, and wildlife; the potential degradation or elimination of important habitat; and impacts on listed, proposed, and candidate threatened and endangered species.
- **Section 3.5 – Cultural Resources:** Addresses the potential impacts of project development on known historical resources and potential archaeological and paleontological resources.
- **Section 3.6 – Geology and Soils:** Addresses the potential impacts the project may have on soils and assesses the effects of project development in relation to geologic and seismic conditions.
- **Section 3.7 – Greenhouse Gases:** Addresses project emissions of greenhouse gases.
- **Section 3.8 – Hazards and Hazardous Materials:** Addresses the potential for the presence of hazardous materials or conditions on the project site and in the project area that may have the potential to impact human health.
- **Section 3.9 – Hydrology and Water Quality:** Addresses the potential impacts of the project on local hydrological conditions, including drainage areas, and changes in the flow rates.
- **Section 3.10 – Land Use and Planning:** Addresses the related land-use impacts associated with implementation of the project including project compatibility with surrounding land uses and consistency with the Stanislaus County General Plan and Zoning Ordinance.
- **Section 3.11 – Noise:** Addresses the potential noise impacts during construction and at project buildout from mobile and stationary sources. The section also addresses the impact of noise generation on neighboring uses.
- **Section 3.12 – Public Services and Utilities:** Addresses the potential impacts upon service providers, including fire protection and law enforcement and service systems such as water, wastewater, solid waste, and energy..
- **Section 3.13 – Transportation and Traffic:** Addresses the impacts on the local and regional roadway system, public transportation, bicycle, and pedestrian access.

Chapter Four: Evaluation of Alternatives. This section compares the impacts of the proposed project with three land use project alternatives: No Project, Alternative Site, and Reduced Greenhouse Gas Emissions. An environmentally superior alternative is identified. In addition, alternatives initially considered but rejected from further consideration are discussed.

Chapter Five: Cumulative Impacts. This section discusses the cumulative impacts associated with the proposed project, including the impacts of past, present, and probable future projects.

Chapter Six: Other CEQA Requirements. This section provides a summary of significant environmental impacts, including unavoidable and growth-inducing impacts. In addition, the proposed project's energy demand is discussed.

Chapter Seven: Impacts Found To Be Less Than Significant. This section contains analysis of the topical sections not addressed in Section 3.

Chapter Eight: References. This section contains a full list of references that were used in the preparation of this Draft EIR.

Chapter Nine: List of Preparers. This section contains a full list of persons and organizations that were consulted during the preparation of this Draft EIR, as well as the authors who assisted in the preparation of the Draft EIR, by name and affiliation.

Appendices: This section includes all notices and other procedural documents pertinent to the Draft EIR, as well as all technical material prepared to support the analysis.

1.4 Documents Incorporated by Reference

As permitted by CEQA Guidelines Section 15150, this Draft EIR has referenced several technical studies, analyses, and previously certified environmental documentation. Information from the documents, which have been incorporated by reference, has been briefly summarized in the appropriate section(s). The relationship between the incorporated part of the referenced document and the Draft EIR has also been described. The documents and other sources that have been used in the preparation of this Draft EIR include, but are not limited to:

- Stanislaus County General Plan;
- City of Turlock General Plan
- Westside Industrial Specific Plan

These documents are specifically identified in Chapter Eight, References of this Draft EIR. In accordance with CEQA Guidelines Section 15150(b), the Stanislaus County General Plan, Stanislaus County Zoning Code, and the referenced documents and other sources used in the preparation of the Draft EIR are available for review at the Stanislaus County Planning and Community Development Department at the address shown in Section 1.6 herein.

1.5 Documents Prepared for the Project

As permitted by CEQA Guidelines Section 15150, this Draft EIR has referenced several technical studies, analyses, and previously certified environmental documentation. Information from the documents, which have been incorporated by reference, has been briefly summarized in the appropriate section(s). The relationship between the incorporated part of the referenced document and the Draft EIR has also been described.

The following technical studies and analyses were prepared for the proposed project:

- Air Quality Analysis, prepared by Quad Knopf (analysis wholly contained in Section 3.3, Air Quality, modeling output provided in Appendix B);
- Cultural Resources Records Search (Appendix C);
- Phase I and II Environmental Site Assessment, prepared by J House Environmental, Inc (Appendix D);
- Noise Assessment, prepared by Bollard Acoustical (Appendix E); and
- Traffic Impact Study, prepared by KD Anderson & Associates (Appendix F).

1.6 Review of the Draft EIR

Upon completion of the Draft EIR, Stanislaus County filed a Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code, Section 21161). Concurrent with the NOC, this Draft EIR has been distributed to responsible and trustee agencies, other affected agencies, and interested parties, as well as all parties requesting a copy of the Draft EIR in accordance with Public Resources Code 21092(b)(3). A Notice of Availability was provided to public agencies and interested parties pursuant to CEQA Guidelines Sections 15085, 15087(c).

During the public review period, the Draft EIR, including the technical appendices, is available for review at the Stanislaus County Planning and Community Development Department, the County of Stanislaus Library – Modesto Branch and the Stanislaus County Library- Turlock Branch. The address and hours of operation for each location are provided below:

- Stanislaus County Planning and Community Development Department
1010 10th Street, Suite 3400
Modesto, CA 95354
Phone: (209) 525.6330
Hours: Monday – Friday, 8:30 AM – 4:30 PM

- Stanislaus County Library – Modesto Branch
 1500 "I" Street
 Modesto, CA 95354
 Phone: (209) 558-7800
 Hours: Monday – Thursday: 10:00 AM – 9:00 PM
 Friday: Closed
 Saturday: 10:00 AM – 5:00 PM
 Sunday: Closed

- Stanislaus County Library – Turlock Branch
 550 Minaret Avenue
 Turlock, CA 95380
 Phone: (209) 664-8100
 Hours: Monday – Wednesday: 10:00 AM – 9:00 PM
 Thursday: 10:00 AM – 5:00 PM
 Friday: Closed
 Saturday: 10:00 AM – 5:00 PM
 Sunday: Closed

The document will also be available on the Stanislaus County website:
<http://www.stancounty.com/planning/pl/act-projects.shtm>

Submittal of electronic comments in Microsoft Word or Adobe PDF format is encouraged. Upon completion of the public review period, written responses to all significant environmental issues raised will be prepared and made available for review by the commenting agencies at least 10 days prior to the public hearing before the Stanislaus County Planning Commission on the project, at which the certification of the Final EIR will be considered. Comments received and the responses to comments will be included as part of the record for consideration by decision makers for the project.

1.6.1 DISCRETIONARY AND MINISTERIAL ACTIONS

Discretionary approvals and permits are required by Stanislaus County for implementation of the proposed project. The project application would require the following discretionary approvals and actions, including:

- Use Permit Application (Application No. PLN2012-0017) –Stanislaus County

Subsequent ministerial actions would be required for the implementation of the proposed project, including issuance of grading and building permits, improvement plans, landscape plans, and will serve letters for potable water.

1.6.2 RESPONSIBLE AND TRUSTEE AGENCIES

A number of other agencies in addition to Stanislaus County will serve as Responsible and Trustee Agencies, pursuant to CEQA Guidelines Section 15381 and Section 15386, respectively.

This Draft EIR will provide environmental information to these agencies and other public agencies, which may be required to grant approvals or coordinate with other agencies, as part of project implementation. These agencies may include but are not limited to the following.

- **Regional Water Quality Control Board (RWQCB)** – Water quality certification under Section 401 of the Clean Water Act if a 404 permit is required and approval for coverage under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit (General Permit) under Section 402 of the CWA. Under the General Permit, a Storm Water Pollution Prevention Plan (SWPPP) must be prepared before any construction activities begin.
- **State Water Resources Control Board** – Spill Prevention Control and Countermeasure Plan (SPCCP) will be prepared for the project in accordance with the 40 CFR 112.
- **San Joaquin Valley Air Pollution Control District (SJVAPCD)** – Construction permits and dust mitigation plan.
- **U.S. Fish & Wildlife Service (USFWS)** – Coordination with mitigation of potential impacts on San Joaquin kit fox.

1.7 Final EIR Certification

This Draft EIR is being circulated for public review for a period of 45 days. Interested agencies and members of the public are invited to provide written comments on the Draft EIR to the Stanislaus County Planning and Community Development Department. Upon completion of the 45-day review period, Stanislaus County will review all written comments received and prepare written responses for each comment. A Final EIR (FEIR) will then be prepared incorporating all of the comments received, responses to the comments, and any changes to the Draft EIR that result from the comments received. The FEIR will then be presented to the Stanislaus County Planning Commission for potential certification as the environmental document for the project. All persons who commented on the Draft EIR will be notified of the availability of the FEIR and the date of the public hearing before the County.

1.8 Mitigation Monitoring

Public Resources Code Section 21081.6 requires that agencies adopt a monitoring or reporting program for any project for which they have made findings pursuant to Public Resources Code 21081 or adopted a Negative Declaration pursuant to 21080(c). Such a program is intended to ensure the implementation of all mitigation measures adopted through the preparation of an EIR or Negative Declaration.

The Mitigation Monitoring Program for the Washington Road Warehouse project will be completed as part of the Final EIR and prior to consideration of the project by the Stanislaus County Planning Commission.

1.9 Distinction Between Review of Environmental Issues and Project Merits

Often during review of an EIR, the public raises issues that relate to the proposed project itself or the project's community benefits or consequences (referred to herein as "project merits"), rather than the environmental analyses or impacts raised in the EIR. Lead Agency review of environmental issues and project merits are both important in the decision of what action to take on a project, and both are considered in the approval process for a project. However, a Lead Agency is only required to respond in its CEQA review to substantive environmental issues that are raised. Certifying an EIR (i.e., finding that it was completed in compliance with CEQA) and taking action on the proposed project rely on procedurally distinct processes and may result in separate decisions made by the Lead Agency.

An example of a project merits issue that is important, but is not a substantive environmental issue, is economic effects that do not result in any physical change to the environment. At any time that the Project comes before the Planning Commission or the Board of Supervisors, the merits of the Project will be discussed. The Planning Commission and the Board of Supervisors may hold public meetings or hearings to review Project merits that are separate from those intended for reviewing the EIR and environmental issues.

Generally, an EIR is "...a detailed statement prepared under CEQA describing and analyzing the significant environmental effects of a project and discussing ways to mitigate or avoid the effects" (CEQA Guidelines §15362). An EIR is intended to identify significant effects on the environment defined in CEQA Guidelines §15382 as "...substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project...". An EIR is intended to be used by the public, decision-makers, interested individuals, and other agencies and organizations that may have responsibility for a project or project components. CEQA Guidelines §15091 points out that "no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding." Further, CEQA Guidelines §15092 states that "after considering the final EIR and in conjunction with making findings...the lead agency may decide whether or how to approve or carry out the project," which is a separate action from EIR certification. When significant environmental effects cannot be reduced to a less than significant level, the Lead Agency must prepare a Statement of Overriding Considerations, in addition to findings, that documents how project benefits outweigh the unavoidable impacts.

CHAPTER TWO
PROJECT DESCRIPTION

CHAPTER TWO – PROJECT DESCRIPTION

2.1 Purpose and Background

The project proponent, Dan Avila & Sons, proposes constructing a 180,000 square foot warehouse (in three phases) and utilizing an existing 5,500 square foot pole barn and associated facilities for receiving, handling, packaging, and shipping harvested crops (watermelons, sweet potatoes, beans, wheat, pumpkins, and squash) on two parcels totaling 61.7± acres in unincorporated Stanislaus County, in the A- 2-40 (General Agriculture) Zoning District, with a General Plan Designation of Agriculture (AG).

In accordance with County requirements, the proposed operation would require a use permit. In its review of Use Permit Application No. PLN2012-0017, the County commissioned the preparation of an air quality/greenhouse gas emissions study. That study determined that projected air emissions associated with vehicle traffic from operation of the proposed warehouse would result in environmental impacts that cannot be mitigated to a level of less than significant. Accordingly, it was determined that an EIR is required in order for further consideration of the use permit application to occur.

2.2 Location and Environmental Setting

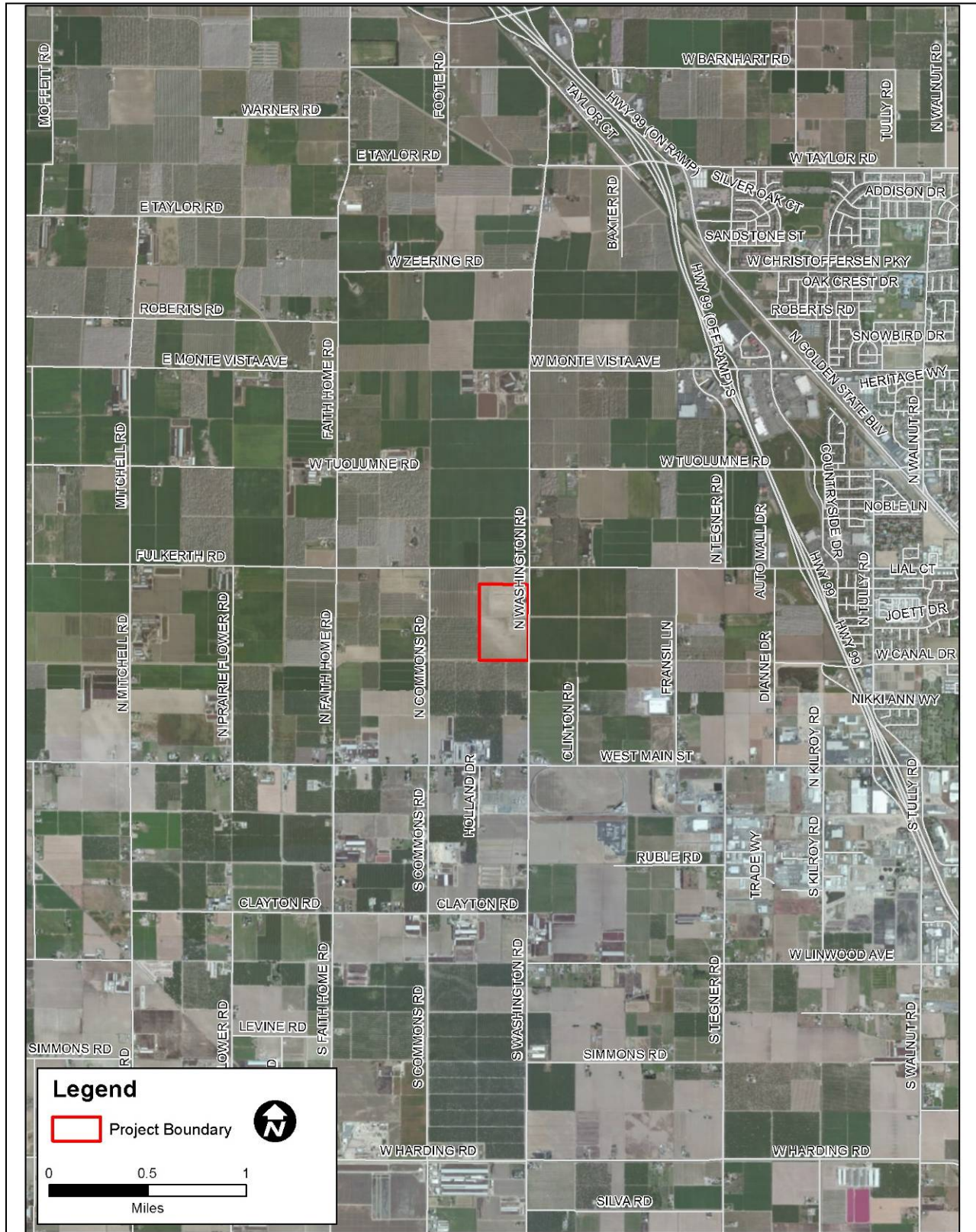
The project site is generally located on the west side of N. Washington Road, south of Fulkerth Road, at the western boundary of the City of Turlock City Limits. The project site address is 1301 N. Washington Road, Turlock, California 95380. N. Washington Road is also the western boundary of the Westside Industrial Specific Plan (WISP), a City of Turlock adopted specific plan. While the project site is not within the WISP, the entire N. Washington Road right-of-way is within the WISP. The site consists of the following two Assessor's Parcels: APN 023-039-017 and 023-039-018. Figure 2-1 provides the Regional Vicinity Map and Figure 2-2 provides the Local Vicinity Map.

2.2.1 EXISTING SITE CONDITIONS

The project site includes several existing structures, including two dwellings, a barn, a frame structure (pole barn), and a storage structure. In addition to buildings, the site includes a small ponding basin, numerous vehicles, irrigation equipment, and packing crates. The majority of the site is used for growing seasonal agricultural crops. The site is currently in agricultural production, consisting almost entirely of sweet potato row crops. Presently, there are two driveway access points onto N. Washington Road. Power lines bisect the project site along an east-west axis, and also occur on the east project site boundary.

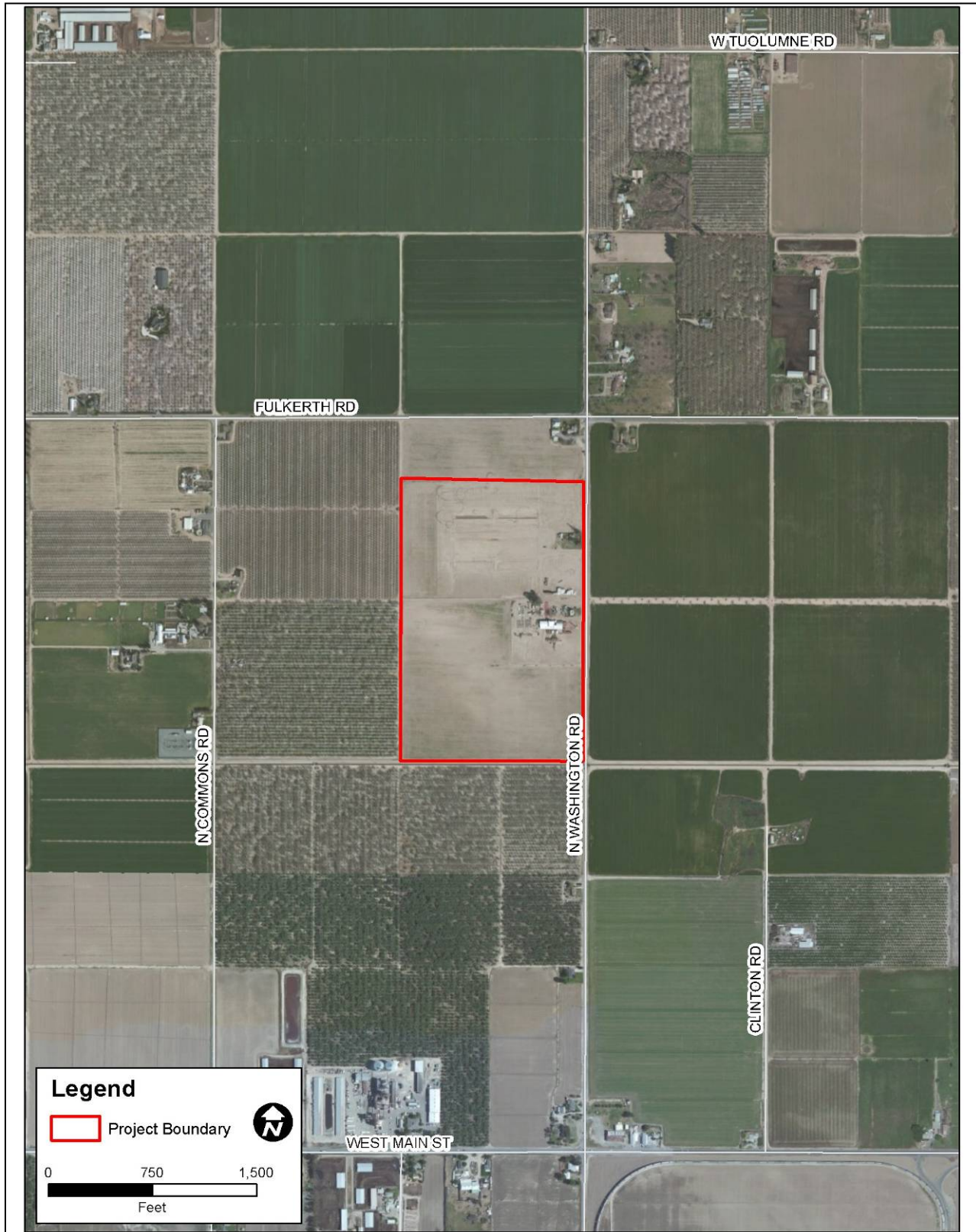
The topography of the project site is essentially flat. Vegetation consists primarily of cultivated vegetables. Several trees of various sizes grow at various locations within and along the site perimeter, including on the N. Washington Road frontage, all in the vicinity of the structures on the site. Refer to Figure 2-3a through c for photographs of the site.

The entire site is currently enrolled in Williamson Act Contract No. 71-309.



REGIONAL VICINITY MAP

Figure 2-1



LOCAL VICINITY MAP

Figure 2-2



PHOTOGRAPH OF THE SITE

Figure
2-3a



Quad Knopf

PHOTOGRAPH OF THE SITE

Figure
2-3b



Quad Knopf

PHOTOGRAPH OF THE SITE

Figure
2-3c

2.2.2 SURROUNDING LAND USE AND LAND USE DESIGNATIONS

Lands in the vicinity of the project site are currently dominated by agricultural, industrial, and residential uses. Land to the north is planted in row crops, while orchards are located on lands to the south and west. To the east, across N. Washington Road and in the Turlock city limits, is a Blue Diamond almond processing facility. Turlock Irrigation District Canal #4 forms the south boundary of the site along an east-west axis.

City and County general plan land use designations for property surrounding the project site range from Industrial to the east (i.e., Westside Industrial Specific Plan), Urban Reserve to the north (across Fulkerth Road), and General Agriculture to the west and south.

Refer to Figure 2-4 for an illustration of land use and land use designations on the site and on surrounding parcels.

2.3 Project Description

The project proponent, Dan Avila & Sons, proposes the construction and operation of a 180,000 square foot warehouse and associated facilities in order to conduct receiving, storage, packing, and shipping of watermelons, sweet potatoes, beans, wheat, pumpkins, and squash. Several structures would be constructed in addition to the existing buildings on the site, as described below, on a 26± acre portion of the 61.7± acre site. (See Figure 2-5, Site Plan.) Note that the site plan shown in Figure 2-5 will be revised in accordance with conditions of approval imposed by Stanislaus County for the use permit application and by the City of Turlock for the encroachment permit onto N. Washington Road.

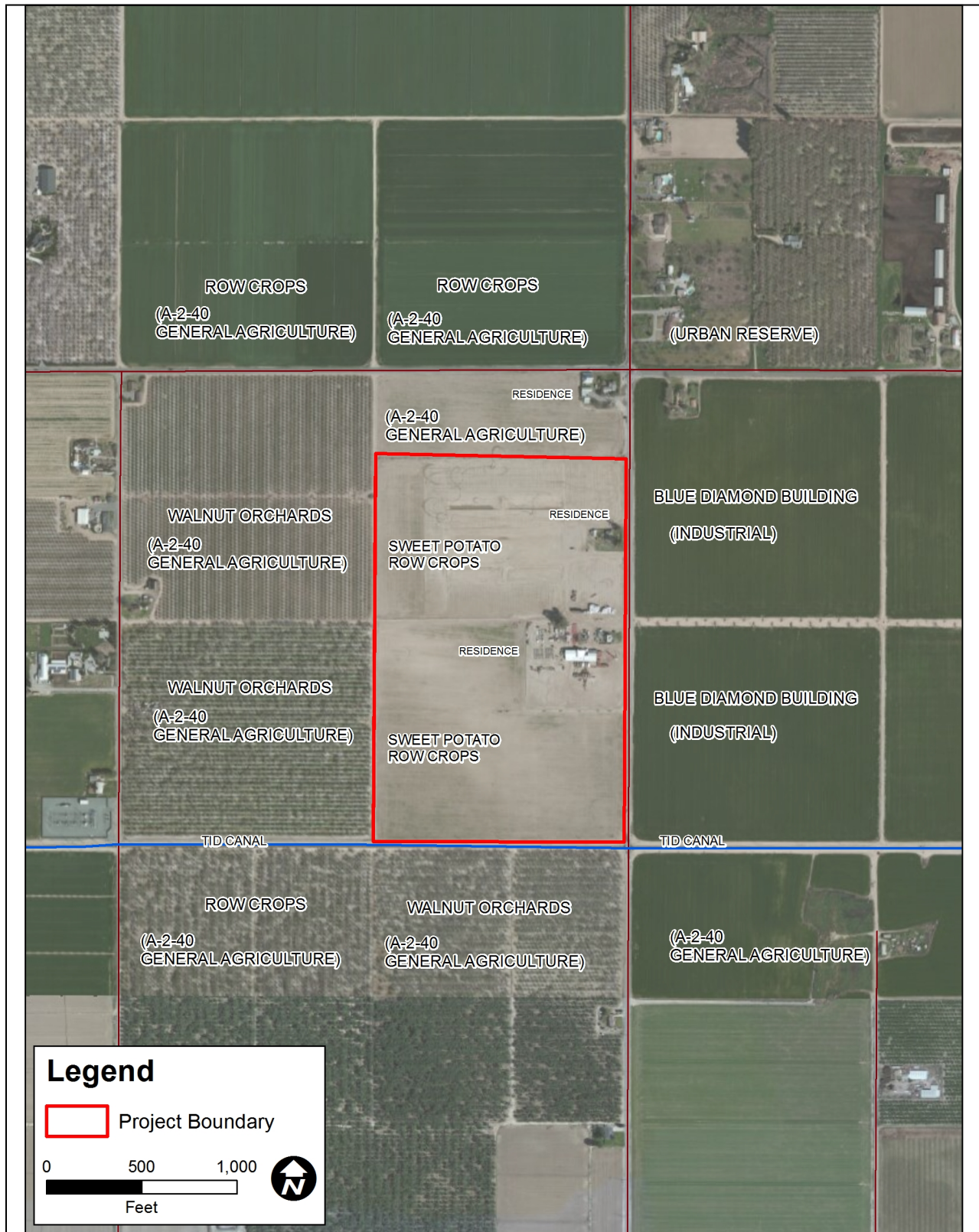
A maximum of approximately 75 employees would be on the site at any time. Hours of operation would mostly be 6:00 a.m. to 6:00 p.m., but could operate 24 hours on occasion.

Produce processed at the facility, consisting primarily of watermelons and sweet potatoes, would come from the fields on the site surrounding the buildings, as well as from other sites farmed by the project proponent.

According to the traffic impact analysis prepared by KD Anderson & Associates, Inc., dated January 24, 2013, the warehouse would be expected to generate 817 daily vehicle trips; however, the project proponent has indicated that, at least initially, the operation would not generate that volume of the daily traffic.

Existing Dwelling/Conversion to Office

One of the existing dwellings, a 1,200-square foot structure, would be converted to office use. A total of five parking spaces would be provided for office staff. The office would be used for routine operations. There would be four employees in this building.

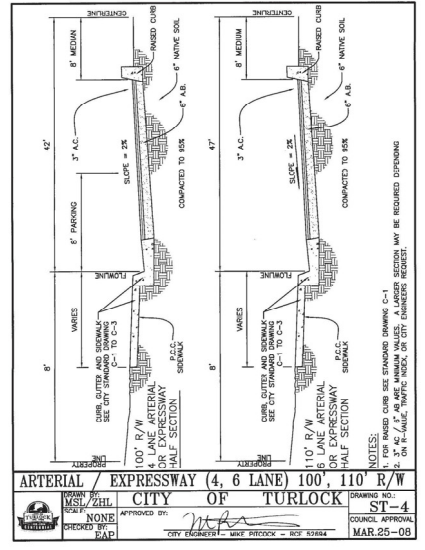
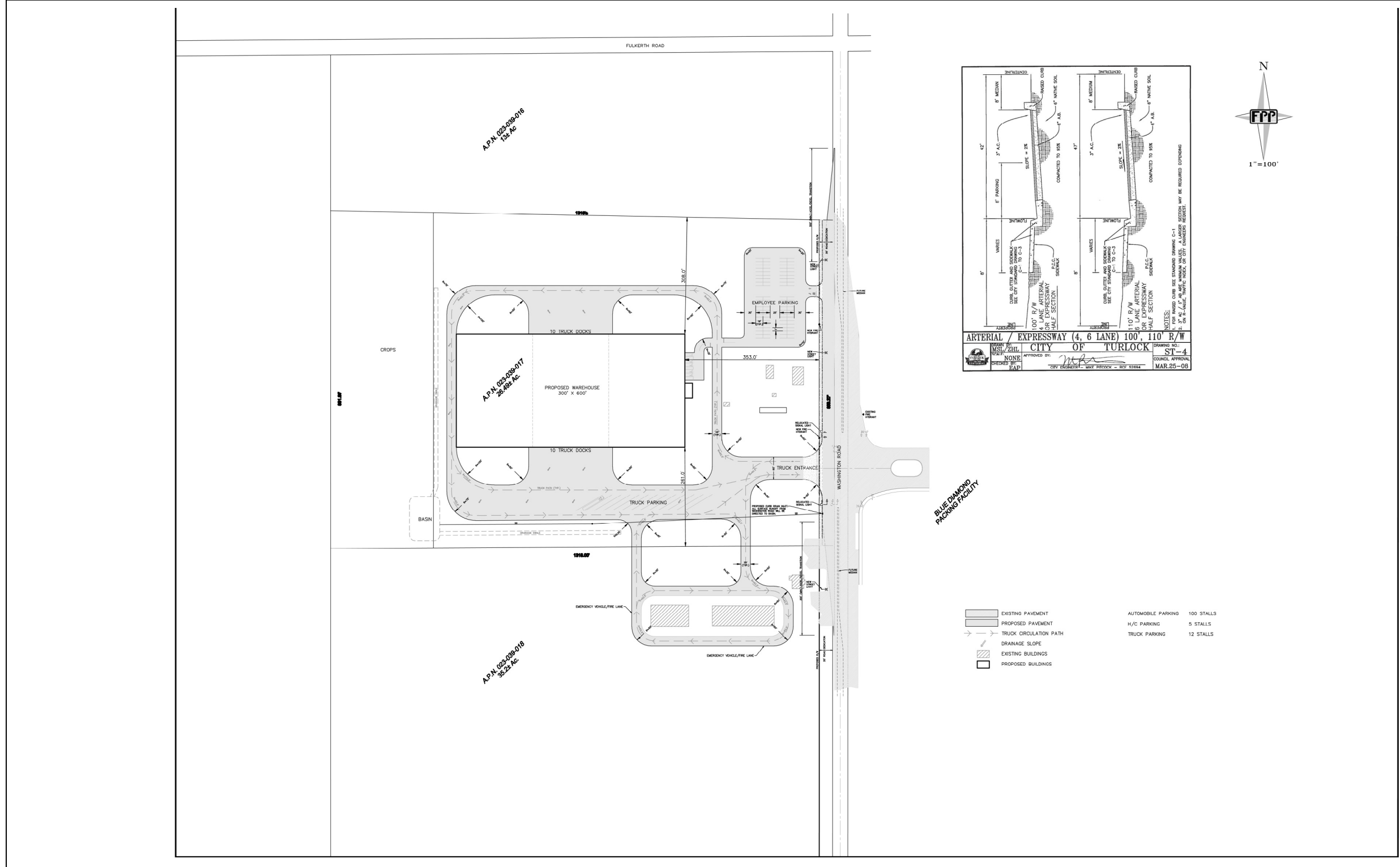


Document Path: Z:\Projects\2013\130100\GIS\land use.mxd



EXISTING LAND USE AND LAND USE DESIGNATIONS

Figure 2-4



- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- TRUCK CIRCULATION PATH
- DRAINAGE SLOPE
- EXISTING BUILDINGS
- PROPOSED BUILDINGS
- AUTOMOBILE PARKING 100 STALLS
- H/C PARKING 5 STALLS
- TRUCK PARKING 12 STALLS

NO.	DATE	BY	REVISION MADE
1			
2			
3			
4			
5			

SITE PLAN

2015 Park Avenue
Menlo Park, CA 94025-3375
Tel: (650) 722-2085
Fax: (650) 722-8975
www.fpp.com
Landscape Architecture
Landscape Architecture
Landscape Architecture

FPP
A Quad Knopf Company

DAN AVILA & SONS
TURLOCK, CALIFORNIA

DR. BY: RMB
DATE: 05/17/14
FILE: 130100SP

130100
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1
OF
1



SITE PLAN

Figure 2-5

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Existing Barn/Conversion to Packing Shed

This existing barn structure has 8,424 square feet of floor area and would be approximately 32 feet in height. It would be constructed of wood and steel and would be painted red with white trim. This structure would be used for the sorting and packing of produce. Activities in this structure would include unloading of watermelons and sweet potatoes, hand washing, and packing. The number of employees in this building would vary from 10 to 35 depending on the season and the product. Hours of operation would mostly be 6:00 a.m. to 6:00 p.m., but could operate 24 hours on occasion.

Pole Barn

The existing pole structure (pole barn) measuring approximately 5,500 square feet (60 feet x 100 feet) would be retained. This structure has a maximum height of approximately 24 feet and is comprised of an aluminum roof supported by steel poles. The pole barn would be used to store, repair, and maintain farm equipment used on the site. Two employees would be at this location during the watermelon and sweet potato seasons. Hours of operation would mostly be 6:00 a.m. to 6:00 p.m., but could operate 24 hours on occasion.

Warehouse

This proposed structure would be 180,000 square feet in area (300 feet x 600 feet) with 10 truck shipping and receiving docking bays on the north and south sides of the building. The warehouse would include areas for packing and storage of produce. This structure would have a shed roof, with a maximum height of approximately 32 feet at the ridge line. The building sides and roof would be constructed of steel and would be painted in earth tone colors. The warehouse would be used for sorting, storing, packing, and shipping of produce. Seventy truck deliveries/loads per day are anticipated seasonally from June to October for a total of 7,000 annually. Evaporative coolers and refrigerators would be used to maintain produce freshness. A maximum of 60 employees would be in this building. Hours of operation would mostly be 6:00 a.m. to 6:00 p.m., but could operate 24 hours on occasion.

Produce Stand

A produce stand measuring 64 square feet (8 feet by 8 feet), currently in place, would remain and be used as the point of sale for seasonal produce grown on the landowner's property.

Milk Barn

A milk barn measuring 144 square feet (12 feet by 12 feet) would remain. The existing milk barn structure would be used for the storage of equipment parts.

Impervious Surface Area

Approximately 26.73 acres of the site, including the buildings, would be covered with impervious surfaces.

Landscaping

The Landscape Plan (Figure 2-6 and illustrated in the Photosimulation (Figure 3.1-2b) depicts a combination of landscaping along the N. Washington Road frontage between the two fences that demark the development area on the site. The plan includes a row of Chinese fringe trees along the site frontage in front of a 5-foot high chain link fence. Star jasmine will be planted along the fence and trained to grow upon the fence. In addition, 14 redwood trees are proposed in groups of two and three behind the fence and Chinese fringe trees. The landscaping plan is intended to provide visual screening of the development area from passersby on N. Washington Road. Landscaping along the N. Washington Road frontage will be consistent with guidance contained in the Westside Industrial Specific Plan.

Lighting

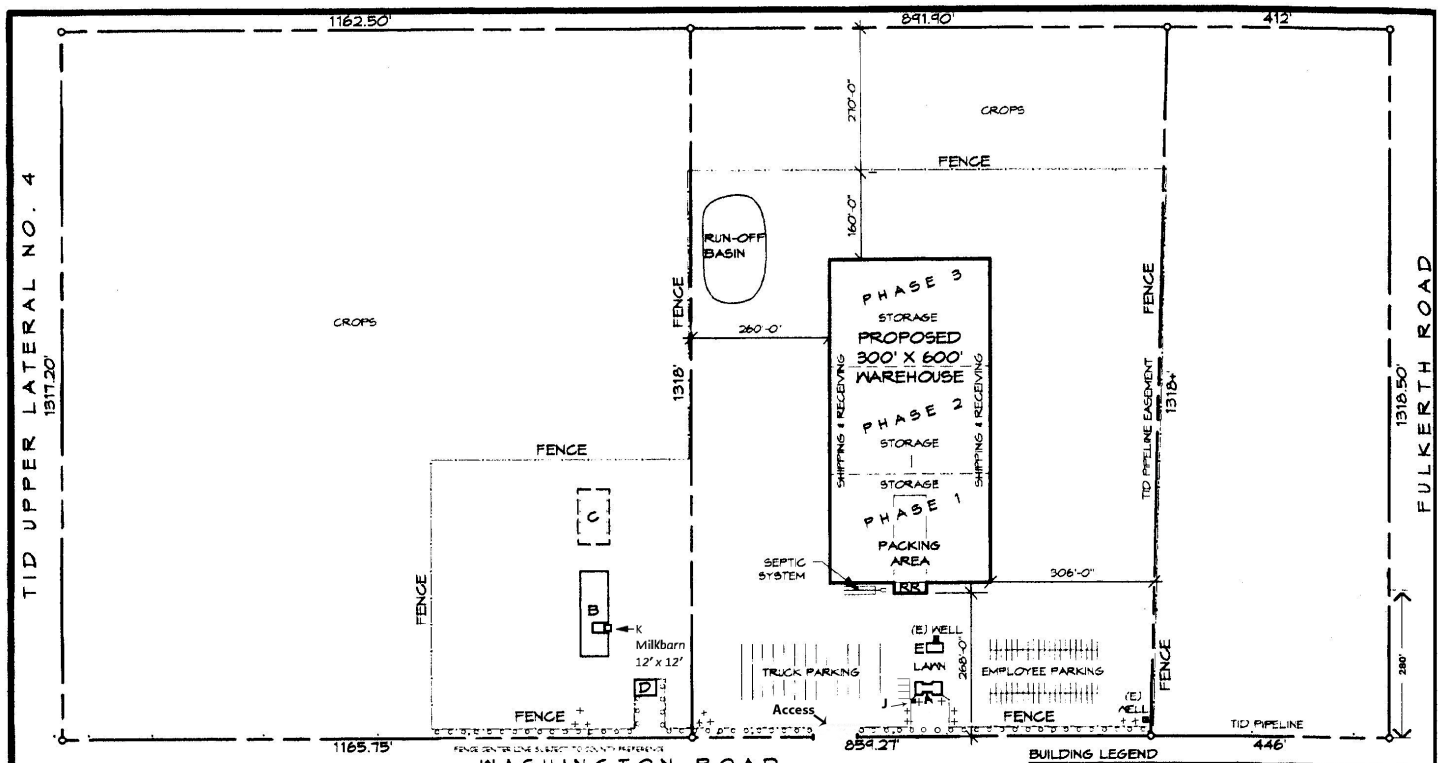
Outdoor lighting would be limited to the minimum required for security in parking areas and for worker safety at outdoor activity areas and the warehouse loading and docking areas.

Site Access and Parking

Access to the site is proposed from a single driveway onto N. Washington Road aligned with the existing traffic signaled driveway to the Blue Diamond facility, as shown in Figure 2-5. Additional traffic signalization improvements will be installed to accommodate access to and from the site onto N. Washington Road. Additionally, the applicant will provide dedication and street improvements along N. Washington Road as may be requested by the City of Turlock. Improvements would include curb, gutter, street re-striping, and road widening to accommodate acceleration and deceleration lanes onto N. Washington Road. On site vehicular circulation and parking will be reconfigured to accommodate N. Washington Road street dedication and improvements. The existing driveway onto Fulkerth Road will not be used to serve this project.

In accordance with Stanislaus County Code requirements, a total of 111 parking spaces are proposed, in addition to large-truck parking, broken down as follows for the various functions proposed on the site. Approximately 30 large truck spaces will be provided.

- Office – 5 spaces
- Packing Shed – 35 spaces
- Pole Barn – 5 spaces
- Warehouse – 63 spaces
- Produce Stand – 3 spaces



1 SITE PLAN - PROPOSED
SCALE: 1" = 250'



- SITE LEGEND**
- EXISTING TEL POLES
 - PROPOSED TRUCK PATH WITH 40' GATES AT FENCES
 - CHAIN LINK FENCE 60" TALL
 - CHAIN LINK FENCE & LANDSCAPING WITH GROUND COVER & SHRUBS, AND CLIMBING JASMINE AT FENCE
 - CHINESE FRINGE
 - + REDWOODS

BUILDING LEGEND

BLDG	DESCRIPTION	ACTION	APN
A	EXISTING HOUSE	CONV. TO OFFICE	023-039-017
B	EXISTING BARN	BARN ADDITION	023-039-018
C	EXISTING FRAME	NEW POLE BARN	023-039-018
D	EXISTING HOUSE	NO WORK	023-039-018
E	EXISTING STORAGE	NO WORK	023-039-017
J	PROPOSED WAREHOUSE	NEW CONSTRUCT.	023-039-017
J	PRODUCE STAND	NEW CONSTRUCT	023-039-017
K	MILK BARN	NEW CONSTRUCT	023-039-018

LANDSCAPE PLAN
DAN AVILA & SONS

1301 N. WASHINGTON RD, Turlock, CA 95380 PHONE: (209) 495-3899
APN: 023-039-016, 023-039-017, 023-039-018

DATE	BY	SHEET:
08-10-12	KAL	1
REVISED	REVISED	
REVISED	REVISED	OF: 2
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LANDSCAPE PLAN

Figure 2-6

Water and Wastewater

The majority of water demand will be for rinsing of produce. Additional water would be for used for employee sinks and toilets. The amount of water required will vary depending upon the time of year. During summer, up to 3,000 gallons per week of water would be required for washing of produce. During other times of the year up to 6,000 gallons per week would be used. Water would be obtained from two on-site wells. Chlorine would likely be added to the wash water. Wastewater from washing operations would be conveyed to the retention basin on the site and allowed to dissipate through evaporation and percolation. Wash water may be recycled and used for irrigation.

No domestic water or wastewater services are proposed. A septic leach field system would be used to dispose of wastewater from employee sinks and toilets.

Grading and Storm Drainage

The site will be graded the minimum amount required to facilitate collection and treatment of all storm water on site, before being conveyed to an on-site retention basin shown on the site plan. The pond is presently 0.07 acres in size and will be enlarged to approximately 0.25 acres in size. Similarly, proposed concrete and asphalt concrete areas will be graded and constructed to direct all run-off to the retention basin. Storm water collected on site would be conveyed by a combination of surface scales, culverts, and sheet flow to the retention basin. Before entering the retention basin, storm water would be filtered in accordance with best management practices (BMPs). The method of treatment, as well as the design and size of the retention basin, will be determined prior to issuance of grading and building permits. Storm water would be disposed of through a combination of percolation into the soil and evaporation. In addition, storm water may be recycled and used for irrigation.

Signage

The applicant will provide signage along the N. Washington Road frontage consistent with Stanislaus County requirements.

2.4 Construction Equipment

Equipment required for site development and construction of structures would include the following: scraper, grader, backhoe, compactor, crane, cherry picker, and forklift.

2.5 Construction Phasing

The 180,000 square foot warehouse would be constructed in three phases, with each phase consisting of a 300-foot by 200-foot section. All other buildings and site improvements would be completed in the first construction phase. Construction is expected to commence by spring of 2017. Construction of the initial phase, including all buildings described above, and the first 200-foot by 300-foot section of the warehouse, is expected to require 4 months. Prior to

completion of the first phase of construction, the dirt yard will be used to receive and ship watermelons.

2.6 Project Objectives

The objectives of the proposed project are to:

- Positively contribute to the local economy by creating new job opportunities for local residents.
- Promote increased economic growth and economic development that is consistent with the policies of the Stanislaus County General Plan.
- Combine all aspects of the operation - including growing, storage, packing, and shipping – at one location.
- Attain financial success by selecting a facility location that has reasonable land prices, site development costs, and operating costs.
- Minimize travel distance to Highway 99.
- Develop a packing, storage, and shipping facility located in an area served by adequate roads.
- Achieve an architectural and site design that are compatible with the surrounding agricultural areas.
- Provide a development that will result in a net fiscal benefit to the County by generating increased property tax revenue.

CHAPTER THREE
ENVIRONMENTAL IMPACT ANALYSIS

CHAPTER 3 – ENVIRONMENTAL IMPACT ANALYSIS

Organization of Issue Areas

This Draft Environmental Impact Report (Draft EIR) provides analysis of impacts for those environmental topics where it was determined as a result of the environmental scoping process, including responses to the Notice of Preparation (Appendix A), potentially significant impacts could result from implementation of the proposed project. Sections 3.1 through 3.14 discuss the environmental impacts that may result with approval and implementation of the proposed project.

Issues Addressed in This EIR

The following environmental issues are addressed in Section 3:

- Aesthetics;
- Agricultural Resources;
- Air Quality;
- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Greenhouse Gases;
- Hazards and Hazardous Materials;
- Hydrology/Water Quality;
- Land Use and Planning;
- Noise;
- Public Services and Utilities; and
- Transportation and Traffic.

Each environmental issue area in Sections 3.1 through 3.14 contains a description of:

1. The environmental setting as it relates to the specific issue;
2. The regulatory framework governing that issue;
3. The methodology used in identifying the issues;
4. The significance criteria;
5. An evaluation of the project-specific impacts and identification of mitigation measures; and
6. A determination of the level of significance after mitigation measures are implemented.

Impact Evaluation

The Impact Evaluation Criteria or Thresholds of Significance standards by which impacts are measured are presented. The purpose is to establish the level at which an environmental impact will be considered significant. For the purposes of this EIR the CEQA thresholds in Appendix G were used; where it was determined that quantitative thresholds exist, they were used in lieu of the qualitative thresholds in the Guidelines.

Determining the severity of project impacts is fundamental to achieving the objectives of CEQA. CEQA Guidelines Section 15091 requires that decision makers mitigate, as completely as is feasible, the significant impacts identified in the Final EIR. If the EIR identifies any significant unmitigated impacts, CEQA Guidelines Section 15093 requires decision makers in approving a project to adopt a statement of overriding considerations that explains why the benefits of the project outweigh the adverse environmental consequences identified in the EIR.

The level of significance for each impact examined in this Draft EIR was determined by considering the predicted magnitude of the impact against the applicable threshold. Thresholds were developed using criteria from the CEQA Guidelines and checklist; State, federal, and local regulatory schemes; local/regional plans and ordinances; accepted practice; consultation with recognized experts; and other professional opinions.

The Impact Analysis section presents the analysis of whether there is an impact and whether it can be mitigated, and is comprised of the following subsections:

Impact Title and Number: Each identified environmental impact is numbered for reference. They are numbered in accord with the Chapter subsection (e.g., 3.8-1).

Conclusion: This is a statement of whether or not an identified impact is significant or less than significant. Significant environmental effects include direct, indirect, short-term, long-term, and unavoidable impacts.

Mitigation Measure Number: Each mitigation measure is numbered in accord with its chapter subsection and correlated with the impact to which it applies.

Effectiveness of Measure: For significant impacts, a statement is made regarding whether the impact can be mitigated to a less than significant level or, alternatively, whether the impact is only partially mitigated, unmitigable, unavoidable, and/or irreversible, based on the Impact Evaluation Criteria.

The above format is intended to conform to standards for adequacy of an EIR as described in §15151 of the *CEQA Guidelines*, which states:

An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information, which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and good faith effort at full disclosure.

3.1 Aesthetics

This section provides an evaluation of the potential aesthetic and visual resource impacts that would be caused by implementation of the proposed project, such as impacts to scenic views and vistas, potential disturbance of scenic resources (i.e., trees, rock outcroppings, etc.), alteration of agricultural uses (from the perspective of aesthetics), and impacts associated with development of the proposed project, including light or glare. The discussion starts with an overview of regulation that is normally applicable to aesthetic and visual resources, followed by a description of the physical setting of both the site and surrounding lands. An analysis is then provided to determine whether the impact(s) would be less than significant, significant without mitigation, or significant and unavoidable. If an impact is significant and can be reduced with mitigation, then a description of the mitigation measure(s) is provided.

3.1.1 REGULATORY SETTING

Federal

There are no specific federal regulations applicable to aesthetic resources for the proposed project.

State

STATE SCENIC HIGHWAY SYSTEM

The California Department of Transportation (Caltrans) administers the California Scenic Highway Program. The goal of the program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to highways. There are no State highways eligible for Official Scenic Highway designation in the project area.

Local

STANISLAUS COUNTY

Stanislaus County General Plan

Pursuant to California Code Title 14, Section 65300 the 1994 Stanislaus County General Plan addresses aesthetics, light and glare in its Land Use Element, Conservation and Open Space Element, and Agriculture Element. The General Plan also includes local, regional, State, and federal programs and regulations as well as a comprehensive set of guiding and implementing policies. The following policies are applicable to the proposed project site:

LU: Goal One - Provide for diverse land use needs by designating patterns which are responsive to the physical characteristics of the land as well as to environmental, economic and social concerns of the residents of Stanislaus County;

LU: Policy 2 - Land designated Agriculture shall be restricted to uses that are compatible with agricultural practices, including natural resources management, open space, outdoor recreation and enjoyment of scenic beauty;

CONS/OS: Goal One - Encourage the protection and preservation of natural and scenic areas throughout the County; and

CONS/OS: Policy 1 - Maintain the natural environment in areas dedicated as parks and open space.

Stanislaus County Code

County Code Title 21, Chapters 21.650 etc. governs certain activities throughout the County that are related to aesthetics and visual resources, specifically landscaping. Compliance with the following regulations will be required:

Title 21: Chapter 21.61 Landscape Area Requirements; and

Title 21: Chapter 21.102 Landscape and Irrigation Standards.

CITY OF TURLOCK

Westside Industrial Specific Plan

The entire North Washington Street right-of-way fronting the project site is within the Turlock city limits. The road is classified as an expressway in the Turlock General Plan. In accordance with the Westside Industrial Specific Plan (WISP), landscape screening for onsite parking areas and frontage improvements including curb, gutter, and sidewalk, will be required. These requirements are directly related to aesthetic and visual resource issues. The project site includes and is adjacent to District D—Industrial areas, as defined by the WISP – which is under different standards than Commercial and Industrial Park land areas. Design of the street frontage improvements will take into consideration the standards presented in the Industrial Business Park and Commercial Office guidelines, specifically Landscaping (Section 4.7.4) and Screening Walls and Fences standards (Section 4.7.7). Compliance with the WISP includes:

LU-P 10: Design industrial development to minimize potential community impacts adversely affecting residential and commercial areas in relation to local and regional air quality and odor, adequacy of municipal service, local traffic conditions, visual quality, and noise levels;

DS 6: Street trees shall be deciduous, broadleaf species to provide substantial shade over the landscape setbacks and sidewalks;

DS 7: Street trees shall be planted at least 3 feet from the curb to accommodate their ultimate growth;

DS 8: Secondary and accent trees shall be:

- planted in informal fashion as determined by space and tree species;
- distinctive in form and/or color; and
- complementary to the form of the dominant street trees.

DS 9: A variety of non-living groundcovers such as bark, cobble and larger stones are encouraged to supplement the primary groundcover and thereby reduce maintenance and irrigation. Groundcovers may also include mulch, flowers or naturalized groundcover including native grasses and shrubs;

DS 10: Lawn may be installed in areas with slopes of 3:1 or less. Groundcover is to be installed on any steeper slope areas;

DS 260: At minimum, all uses shall provide an attractive street front that includes a landscape strip not less than 15 feet wide that includes shade and/or accent trees and a ground cover. The ground cover may include plant materials, rock, bark or similar materials, but shall be designed to facilitate regular irrigation and maintenance;

DS 261: Any detention area located where visible from the street shall be landscaped with a ground cover that can easily be mowed or otherwise maintained in a clean, attractive condition. Trees should be located around the edge of the detention area; and

DS 262: Any fence around the detention area shall be an attractive addition to the landscape and not simply a utilitarian security fence.

3.1.2 PHYSICAL SETTING

Regional

The project site is located in the Central California Valley in Stanislaus County. This region is characterized by flat, intensively farmed plains with long, hot dry summers and cool, wet winters. The Central California Valley region includes the Sacramento Valley to the north and the San Joaquin Valley to the south and ranges between the Sierra Nevada foothills to the east and the Coastal Range foothills to the west. Much of the region is actively farmed, and about three fourths of the farmed land is irrigated. The project site is adjacent to the west boundary of the Turlock city limits. Turlock is approximately 80 miles southeast of the San Francisco area and approximately 80 miles south of Sacramento.

Local Vicinity

PROJECT SITE

The project site includes approximately 61.7 acres. The site is currently used for growing seasonal agricultural crops and includes several existing structures, including two dwellings, a barn, a frame structure (pole barn), and a storage structure. In addition to buildings, the site includes numerous vehicles, irrigation equipment, and packing crates.

The topography of the project site is essentially flat. Vegetation consists primarily of cultivated vegetables. Several large trees grow at various locations within and along the site perimeter, including on the N. Washington Road frontage. There is one Turlock Irrigation District (TID) irrigation canal (#4) running in an east-west direction, along the southern site boundary.

SURROUNDING AREAS

As shown in Figure 2-1 in Chapter Two, much of the land surrounding the project site is in agricultural production or occupied by rural residential homes and ancillary structures. On the north, south, east, and west sides there are row crops, disked lands, and agricultural related structures.

The Sierra Nevada mountains, with elevations ranging from approximately 5,000 to 14,500 feet above mean sea level, are the only prominent natural and visual resource visible from the project area. Due to frequent poor air quality, views of these distant mountains are afforded only during clear conditions. Due to relatively flat topography and a general lack of structures and trees, distant views through the project are unimpeded. Typical views of the project site and surrounding areas are shown in photography Figure 3.1-1a through f.

Light and Glare

PROJECT SITE

The project site includes two dwellings, a barn, a pole barn, and a storage structure. Both dwellings and the barn have external lighting.

SURROUNDING AREAS

Sources of light and glare in the surrounding areas include lighting fixtures associated with the scattered rural residential developments, the Blue Diamond facility across N. Washington Road (which includes parking lot lights and security lights), and light industrial land uses. Additional light and glare sources include motor vehicles traveling along N. Washington Road and Fulkerth Road. There are street lights in the vicinity of the project site, installed along North Washington Road across the street from the project site as part of the Blue Diamond project.

3.1.3 IMPACT EVALUATION CRITERIA

Analysis Methodology

For the purposes of this analysis, relevant documents, particularly the Stanislaus County General Plan, Stanislaus County Code, and the Westside Industrial Specific Plan, were consulted. The proposed project was qualitatively assessed to determine whether it would conflict with aesthetic policies or regulations. If the project was determined to conflict with any relevant plans, a determination was then made as to whether the conflicts or inconsistencies would result in any significant impacts that would otherwise be mitigated or avoided without the proposed project. The project proposes development designed in a way that facilitates aesthetic design consistent with policies, and mitigates for significant impacts due to lighting and glare.



Quad Knopf

EAST VIEW FROM ACROSS THE STREET LOOKING TOWARD CENTRAL PART OF THE PROJECT SITE

Figure
3.1-1a



NORTH VIEW FROM THE SITE LOOKING OVER THE PROJECT SITE

Figure
3.1-1b



WEST VIEW FROM THE PROJECT SITE LOOKING TOWARD ORCHARDS

Figure
3.1-1c



NORTH VIEW FROM THE SOUTHWEST CORNER OF THE PROJECT SITE

Figure
3.1-1d



Quad Knopf

EAST VIEW OF THE PROJECT AREA
OVERLOOKING THE EXISTING STRUCTURES

Figure
3.1-1e



SOUTH VIEW OF PROJECT SITE FROM THE NORTHWEST CORNER

Figure
3.1-1f

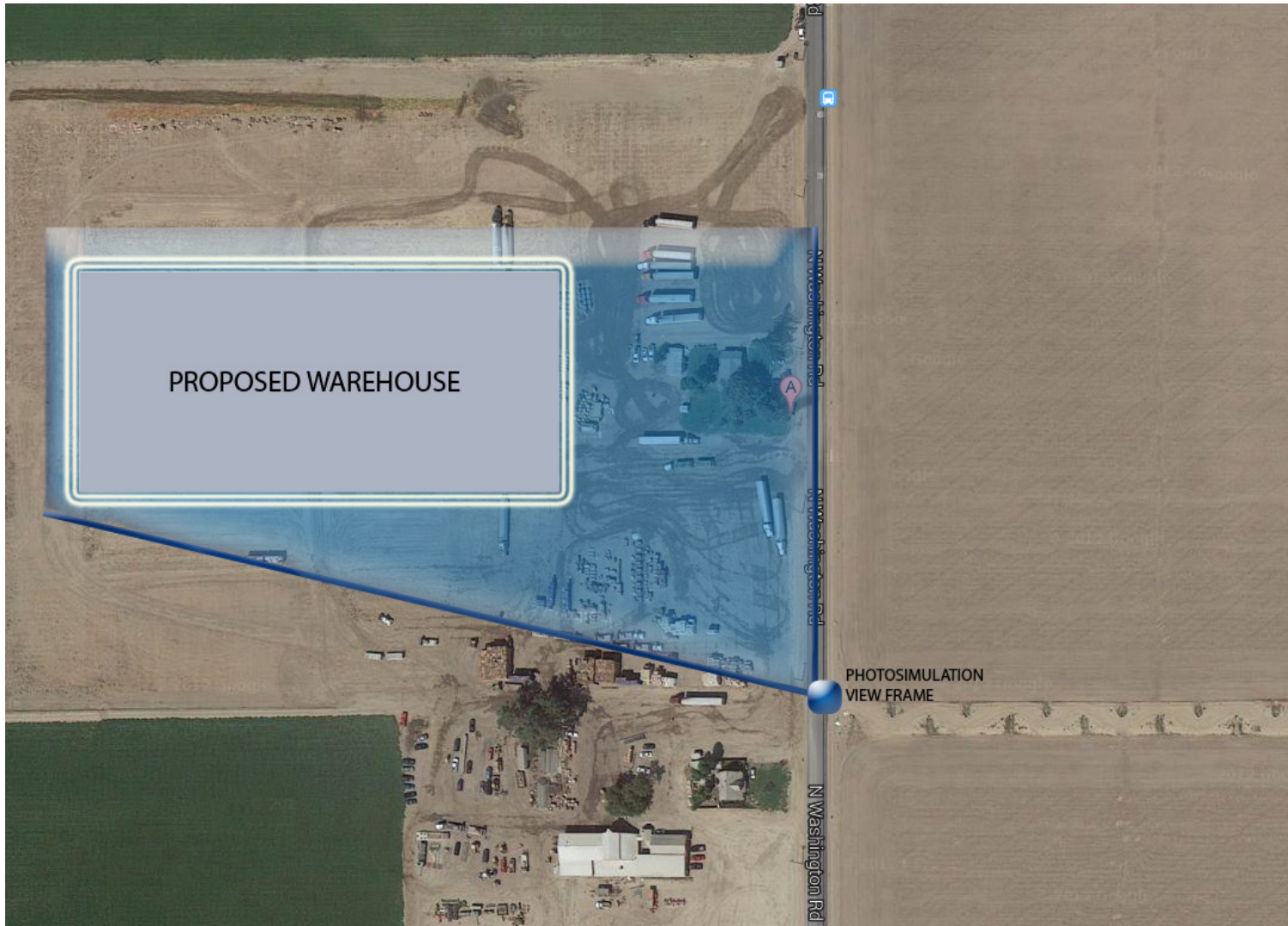
Compliance with the goals, policies, and implementation measures of the Stanislaus County General Plan, Westside Industrial Specific Plan, and Stanislaus County Code is required.

Existing visual conditions data were collected using an approach that incorporated a combination of information review, agency consultation, aerial photograph and satellite imagery review (ESRI ArcGIS online), map review, field reconnaissance, and onsite photography. In addition, a photosimulation was created using Adobe Photoshop that included site photos and simulations of features (trees and a fence) to be installed during the project (Figure 3.1-2a and b). The following steps were taken to collect data on existing visual conditions in the project area and to make an assessment of the potential visual impact of the proposed project:

- Conducted a site reconnaissance in June 2013;
- The project's viewshed and, sensitive viewpoints (key locations with views of the project), if existing, were identified;
- Landscape photographs were taken from on-site observation points; and
- Created a photosimulation using the information given from the site plan and the existing infrastructure from the photo, the actual height of the trees, fence and warehouse images to represent an accurate depiction of the overall features.

Based on the existing conditions from the reconnaissance survey and described in Section 3.1.2, potential impacts to aesthetics were determined by analyzing the change to the existing setting from construction and operation of the proposed project as these changes relate to adverse impacts associated with existing aesthetic/visual resources and mandatory compliance with the existing regulatory setting. Factors considered included:

- Natural features, including topography, water courses, rock outcrops, and natural vegetation;
- Positive and negative effect of man-made alterations and structures on visual quality; and
- Visual composition, including assessment of the complexity and vividness of patterns in the landscape.



PHOTOSIMULATION VIEW FRAME, AVILA & SONS, STANISLAUS COUNTY

Figure 3.1-2a



Quad Knopf

PHOTOSIMULATION VIEW LOOKING NORTH ALONG NORTH
WASHINGTON ROAD, AVILA & SONS, STANISLAUS COUNTY

Figure
3.1-2b

Thresholds of Significance

According to the CEQA Guidelines, a project will normally have significant adverse impacts associated with aesthetics/visual resources if it would:

- a) *Have a substantial adverse effect on a scenic vista.*
- b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state or county designated scenic highway or county designated scenic road.*
- c) *Substantially degrade the existing visual character or quality of the site and its surroundings which are open to public view.*
- d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.*

3.1.4 IMPACTS AND MITIGATION MEASURES

This section discusses potential impacts associated with development of the project and then provides mitigation measures where appropriate.

Impact #3.1-1 – Have a substantial effect on a scenic vista, or substantially damage a scenic resource.

While portions of the project area and surrounding area are characterized by rural by agricultural settings, the project area and vicinity are generally flat, affording little in the way of vantage points or panoramic views. Neither the project site nor any of the surrounding land uses contains features typically associated with scenic vistas (e.g., ridgelines, peaks, overlooks), nor is the project site part of any formally-identified scenic vista. Therefore, little opportunity exists for project development to obscure views of scenic vistas that may be located within the immediate area of the project site. And though the current land uses provide views of an agricultural landscape that is representative of the region, the project site does not contain resources that are exemplary of the agricultural history of the area (such as historic structures or landmarks; see Section 3.5, Cultural Resources). Views of the project site are not unique in the region.

As previously stated, the Sierra Nevada mountains are the only prominent natural and visual resource visible from the project area. Views of these distant mountains are afforded only during clear conditions. Due to poor air quality in the valley, this mountain range is not visible on most days. Distant views of the Sierra Nevada mountains would largely be unaffected by the development of the project because of the distance and limited visibility of these features.

As seen in the photosimulation, construction of the proposed project may obstruct a portion of the existing views from adjacent areas or existing uses on the site (see Figure 3.1-2). However, the areas from which these views may be obstructed are not designated scenic overlooks, are not places where people gather in order to gain a view of any notable landscape features, and are

predominantly agricultural in nature. In addition, street views of the project site provide a limited view of the warehouse, but a greater view of trees and the vine-covered fence. In existing condition photos of the project, a few trees are visible along with a storage yard and residence structure; however, in the photosimulation photos, trees span along the view frame, the storage yard is imperceptible, and the residence is mostly obscured by the addition of trees along the street.

Therefore, any blockage of existing views by development in the project area would be considered *less than significant*.

Conclusion: Impacts to scenic vistas would be *less than significant*.

Mitigation Measures: No mitigation measures are required.

Impact #3.1-2 – Substantially degrade the existing visual character or quality of the site and its surroundings which are open to public view.

The majority of the project area is currently visually characterized as agricultural land, and lacks notable features. Development of the project area would involve the construction and operation of a 180,000 square foot warehouse and associated facilities on currently undeveloped land, which would result in a substantial change in the existing visual character of the project area. This warehouse would consist of docking bays on the north and south sides of the building, and areas for packing and storing produce. The building would have a shed roof, with a maximum height of approximately 36 feet; the roof and sides would be constructed of steel and would be painted in earth tone colors.

In addition, an existing barn (8,424 square feet) would be converted to a packing shed. This structure would be approximately 32 feet in height, and constructed of wood and steel. It would be painted red with white trim.

Changes to the project area would be visible from the adjacent roadways and properties. The existing view would change from partially agricultural views to views with a more industrial character including vehicles, structures, landscaping, and fences. Although the views from public roadways would change, they would be consistent and compatible with existing views on the project site and to the east, which consists of a Blue Diamond Facility and associated industrial development along N. Washington Road.

The right-of-way portion of the project must comply with City Design Guidelines, which are intended to ensure new development is well designed, compatible with adjacent uses, and contributes to the character of the area and agricultural community. Throughout the portion of the project area (i.e., the road frontage) that is subject to the WISP, landscaping would soften the visual impact of new development. Development of the project would be an extension of and visually compatible with the existing agricultural communities that surround the project site.

The proposed project would not “substantially degrade” the visual quality of the project area or its surroundings. Therefore, the impact would be considered *less than significant*.

Conclusion: Impacts to visual character and quality of the site and its surrounding area would be *less than significant*.

Mitigation Measures: No mitigation measures are required.

Impact #3.1-3 – Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Outdoor site lighting would consist of lighting for security in parking areas and lighting for worker safety at outdoor activity areas, including warehouse loading and docking areas. The project will add to the existing light and glare on the site and in the vicinity. Security lights currently exist at one existing barn structure on the project site, and numerous parking and security lights exist across the street at an industrial facility. In addition, increased vehicular traffic on and off the project site will add additional lights and glare to the site. Much of the light from sources on site, including site illumination and vehicle headlights, will be blocked from view offsite by the proposed landscape screening along the North Washington Road street frontage. The effectiveness of the landscape screening will improve as vegetation matures.

Except as mentioned above, information about proposed site lighting has not been provided by the project applicant. Due to the uncertainty regarding proposed exterior lighting and the lack of specific guidelines in the County General Plan and County Code, lighting impacts are potentially significant.

Conclusion: This impact is considered *potentially significant* and the following mitigation measures are required to address project impacts in addition to the proposed landscape screening along the North Washington Road street frontage.

Mitigation Measure #3.1-3:

- Lighting shall employ shielding that would direct light in a downward direction.
- Lighting shall generally occur at intersections, areas of pedestrian activity, and building entrances, and be minimized elsewhere.
- Lighting shall be designed and located to minimize glare and the direct view of light sources.
- Metal halide, incandescent, or color-balanced fluorescent fixtures shall be employed. Low pressure sodium fixtures are prohibited.

Effectiveness of Measures: With the implementation of the above mitigation measures impacts caused by the project from light and glare would be *less than significant*.

3.2 Agricultural Resources

This section describes the existing agricultural resources and potential environmental effects from project implementation on the project site and its surrounding area. Descriptions and analysis in this section are based on information provided by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP), the United States Department of Agriculture (USDA), the Stanislaus County General Plan Existing Conditions Report, and the City of Turlock General Plan and Westside Industrial Specific Plan.

The discussion starts with an overview of regulation that is normally applicable to the air quality environmental factor, followed by a description of the physical setting of both the site and surrounding lands. An analysis is then provided to determine whether the impact(s) would be less than significant, significant without mitigation, or significant and unavoidable. If an impact is significant and can be reduced with mitigation, then a description of the mitigation measure(s) is provided.

3.2.1 REGULATORY SETTING

Federal

FARMLAND PROTECTION ACT

The Farmland Protection Policy Act was passed into federal law as part of the Agriculture and Food Act of 1981 (Public Law 97-98). The Act was passed in response to the National Agricultural Land Study of 1980-1981 which found that millions of acres of farmland were being converted in the United States each year and a related report which found that much of this conversion was the result of programs funded by the federal government. The intent of the Act is to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that – to the extent possible – federal programs are administered to be compatible with state and local units of government and private programs and policies to protect farmland.

FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT

The federal Insecticide, Fungicide, and Rodenticide Act establishes procedures for regulating the use and sale of pesticides to protect human health and the environment, and it provides federal control of pesticide distribution, sale, and use. The legislation governs the registration and labeling of pesticides and enforcement against banned and unregistered products.

State

FARMLAND MAPPING AND MONITORING PROGRAM (FMMP)

In 1975, the Soil Conservation Service (since renamed Natural Resources Conservation Service [NRCS]) of the United States Department of Agriculture began farmland mapping efforts across the nation, with the goal of producing agricultural resource maps based on soil quality and land

use. As part of this nationwide agricultural land use mapping effort, the NRCS developed a series of definitions known as Land Inventory Monitoring (LIM) criteria. The LIM criteria classify the land's suitability for agricultural production; suitability includes both the physical and chemical characteristics of soils and the actual land use. In the early 1980s, to continue these farmland mapping efforts in California, the Farmland Mapping and Monitoring Program (FMMP) was created within the California Department of Conservation. The FMMP carries on these mapping activities on a continuing basis and with a greater level of detail; this is accomplished by using a modified LIM criteria. These criteria utilize the NRCS and Storie Index Rating Systems, but also consider physical conditions such as a dependable water supply for agricultural production, soil temperature range, depth of the ground water table, flooding potential, rock fragment content and rooting depth. The FMMP prepares Important Farmlands maps for all counties in California, using the modified LIM criteria as well as current land use information.

The Important Farmlands maps identify four agriculture listings: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban Land, and Other Land.

WILLIAMSON ACT

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is promulgated in California Government Code Sections 51200–51297.4, and is applicable only to specific land parcels within California. The 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 uses in return for reduced property tax assessments. Private land within locally designated agricultural preserve areas is eligible for enrollment under Williamson Act contracts.

The Williamson Act program is administered by the Department of Conservation, in conjunction with local governments, which administer the individual contract arrangements with landowners. The landowner commits the parcel to a 10-year period wherein no conversion from agricultural use is permitted. Each year the contract automatically renews unless a notice of non-renewal or cancellation is filed. In return, the land is taxed at a rate based on the actual use of the land for agricultural purposes, as opposed to its unrestricted market value. An application for immediate cancellation can also be requested by the landowner, provided that the proposed immediate cancellation application is consistent with the cancellation criteria stated in the California Land Conservation Act and those adopted by the affected county or city. Non-renewal or immediate cancellation does not change the zoning of the property. Participation in the Williamson Act program is dependent on county adoption and implementation of the program and is voluntary for landowners.

The Williamson Act states that a board or council by resolution shall adopt rules governing the administration of agricultural preserves. The rules of each agricultural preserve specify the uses allowed. Generally, any commercial agricultural use will be permitted within any agricultural preserve. In addition, local governments may identify compatible uses permitted with a use permit.

The Williamson Act provides the ability to utilize the lands under contract for “compatible uses,” which are those considered to be only agricultural or related to agriculture in nature. Government Code (GC) §51243(a) states that every contract, “provide for the exclusion of uses other than agricultural uses, and other than those compatible with agricultural uses, for the duration of the contract.” GC §51238.1 includes provisions stating that the uses, “must not significantly compromise” agricultural capability either on the parcel or on other contracted lands. Similarly, the use must not “displace or impair current or reasonably foreseeable agricultural operations” on the parcel or contracted parcels, unless the use is related directly to production of commercial agricultural production, such as “harvesting, processing, or shipping” of agricultural products. The use also must not result in “significant removal of adjacent contracted land.”

FARMLAND SECURITY ZONE ACT

A Farmland Security Zone (FSZ) contract is a contract between a private landowner and a county that enforceably restricts land to agricultural or open space uses. The minimum initial term is 20 years. Like a Williamson Act contract, FSZ contracts renew annually unless either party files a “notice of nonrenewal.” There are no lands under FSZ contract within the project vicinity.

PUBLIC RESOURCES CODE SECTION 21060.1

Public Resource Code Section 21060.1 defines agricultural land for the purposes of assessing environmental impacts using the FMMP. The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands. The FMMP provides analysis of agricultural land use and land use changes throughout California.

STATE PESTICIDE AND CHEMIGATION LAWS AND REGULATIONS

Agricultural water quality issues involving pesticides are generally handled by the Regional Water Quality Control Boards (RWQCBs) in cooperation with the California Water Resources Control Board (CWRCB), the Department of Pesticide Regulation (DPR), and County Agricultural Commissioners, as directed by the Porter-Cologne Water Quality Control Act. The California Department of Health Services (CDHS) may delegate responsibility for detecting/monitoring contaminants to county health officers when there is organic chemical contamination of public water systems. The CDHS and the DPR share information on all monitoring results which are positive for pesticide residues, in order to identify the source of contamination.

Pesticide sales and use are controlled by the California Department of Pesticide Regulation and by County Agricultural Commissioners⁷ in each of the State’s 58 counties.

Local

STANISLAUS COUNTY

General Plan Agricultural Element

Land in unincorporated Stanislaus County is subject to the policies and regulations of Stanislaus County. The Agricultural Element of the Stanislaus County General Plan provides goals and policies to minimize the conversion of agricultural land to other uses.

AG: Goal One - Strengthen the agricultural sector of the county's economy

AG: Goal Two - Conserve agricultural land for agricultural uses

AG: Policy 2.14 - The County will assess proposed conversion of agricultural land for its potential to result in a significant adverse environmental impact, and will require preparation of an EIR where needed to fully assess impacts.

AG: Policy 2.15 – If a project, general plan or community plan amendment results in the conversion of agricultural land to residential uses, then County policy requires a 1:1 replacement of the land, of equal quality, elsewhere in Stanislaus County. Replacement can be in the form of purchasing agricultural conservation easements or contributing in-lieu fees, as detailed in the Farmland Mitigation Program Guidelines, Appendix B of the Stanislaus County General Plan.

AG: Policy 2.5 – Direct development away from the County's most productive agricultural land to the greatest extent possible.

AG: Policy 2.8 - Agricultural land shall not be converted to residential subdivision.

AG: Goal Three - Protect the natural resources that sustain agriculture in the county.

The Stanislaus County General Plan's Agriculture Element also recognizes the legitimate interests of cities to grow and prosper, and the County is committed to not oppose "reasonable requests" to expand, provided that resulting growth minimizes impacts to agricultural land, and to help manage development in Sphere of Influence (SOI) areas.

Zoning Code Agricultural Land Policies

Chapter 9.32 of the Stanislaus County Zoning Code contains the County's Agricultural Land policies. Recognizing the value of agricultural land and production, it is the County's stated purpose to reduce the loss of its agricultural resources by limiting the conditions under which agricultural operations can be considered a nuisance. Section 9.32.030 states:

No agricultural activity, operation, or facility, or appurtenances thereof, conducted or maintained on agricultural lands for commercial purposes, and in a manner consistent

with proper and accepted customs and standards as established and followed by similar agricultural operations in the same locality, shall be or become a nuisance, private or public, after the same has been in operation for more than three years if it was not a nuisance at the time it began. (Ord. CS 456 §2 (part), 1991).

Agricultural Commissioner

The Stanislaus County Agricultural Commissioner/Sealer, under direction of the California Department of Food and Agriculture and the California Department of Pesticide Regulation, conducts law enforcement and service functions required by state and federal laws and regulations as well as law enforcement and service functions required by measures and ordinances authorized by the Stanislaus County Board of Supervisors. The primary purposes of this department are to protect the agricultural industry, environment, and the public health, safety and welfare.

Stanislaus County Code

The Stanislaus County Code is the County's guideline for regulating land use activities and development within its jurisdiction. There are 24 Titles that make up the code which consists of all the regulatory and penal ordinances and certain administrative ordinances of Stanislaus County, codified pursuant to the provisions of Sections 50022.1—50022.8 and 50022.10 of the Government Code. Use on land in the A-2 Agricultural District is contained in Title 20 Zoning Chapter 21.20.

CITY OF TURLOCK

Westside Industrial Specific Plan

North Washington Road is in the City of Turlock's Westside Industrial Specific Plan (WISP) limits and designated as an expressway in the City's General Plan. Consequently, the right-of-way of North Washington Road adjacent to the project site is also subject to the City of Turlock's WISP. Compliance with the WISP will include the following policies:

LU-Policy 4 - Land use should be allocated so that the destination for heavy truck traffic is generally located on the west side of the Plan Area with access from Washington Road.

3.2.2 PHYSICAL SETTING

Agricultural Economy

Agriculture is a major activity throughout Stanislaus County and the San Joaquin Valley. The proposed project is located in Stanislaus County, the State's sixth largest agricultural county in terms of agricultural production. The California Department of Conservation Farmland Mapping and Monitoring Program indicated that approximately 42 percent of the County's land area was considered Prime farmland, Farmland of Statewide Importance, Unique farmland, or Farmland of Local importance in 2010. Typically these land designations support cultivated agricultural

production. Another 43 percent of the land was designated as grazing land. Stanislaus County has consistently maintained its position as the sixth largest agricultural economy in California during the past 5 years for which data is available. Between 2006 and 2011, the production value of Stanislaus County crops increased from \$2.1 billion to over \$3.0 billion. Table 3.2-1 summarizes agricultural production in the County between 2006 and 2011.

**Table 3.2-1
Stanislaus County Agricultural Economy**

Year	\$ Value (Billions)	Rank in State
2011	3.0	6
2010	2.5	6
2009	2.3	6
2008	2.4	6
2007	2.4	6
2006	2.1	6

Source: California Department of Food and Agriculture, California Agricultural Resource Directory 2007-2011

Table 3.2-2 summarizes the top 10 agricultural commodities produced in Stanislaus County by dollar value in 2011. As shown in the table, milk is the number one commodity in Stanislaus County with a production value of \$598 million.

**Table 3.2-2
Stanislaus County Agricultural Commodity Summary (2011)**

Rank	Commodity	\$ Value (Millions)
1	Milk, All	752
2	Almonds	628
3	Chickens, All	181
4	Walnuts	176
5	Corn, silage	116
6	Cattle, Dairy heifers	90
7	Tomatoes, processing	78
8	Nursery, fruit/vine, non-bearing	71
9	Cattle, milk cows, cull	70
10	Hay, alfalfa	70
Top Ten Total		2,232

Source: California Department of Food and Agriculture, California Agricultural Statistics Review, 2012-2013

Important Farmlands

Four major classifications of farmland adopted by the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) are located within the County. These classifications, as defined below, outline the fertility of soils.

“Prime Farmland” is land which has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods.

“Farmland of Statewide Importance” is land other than Prime Farmland which has a good combination of physical and chemical characteristics for the production of crops. It must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use.

“Unique Farmland” is land which does not meet the criteria for Prime Farmland or Farmland of Statewide Importance, that has been used for the production of specific high economic value crops at some time during the two update cycles prior to the mapping date. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality and/or high yields of a specific crop when treated and managed according to current farming methods. Examples of such crops may include oranges, olives, avocados, rice, grapes, and cut flowers. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use.

“Farmland of Local Importance” is either currently producing crops, has the capability of production, or is used for the production of confined livestock. Farmland of Local Importance is land other than Prime Farmland, Farmland of Statewide Importance or Unique Farmland. This land may be important to the local economy due to its productivity or value. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use.

The State of California also prepares Important Farmland maps for agricultural counties and monitors permanent farmland conversion. The California Department of Conservation, Division of Land Resource Protection’s Farmland Mapping and Monitoring Program (FMMP) employs the above described NRCS classifications with the addition of three other categories, as follows:

“Grazing Land” is defined in Government Code §65570(b)(3) as: "...land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock." The minimum mapping unit for Grazing Land is 40 acres. Grazing Land does not include land previously designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance, and heavily brushed, timbered, excessively steep or rocky lands which restrict the access and movement of livestock.

“Urban and Built-Up Land” is used for residential, industrial, commercial, construction, institutional, public administrative purposes, railroad yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment plants, water control structures, and other development

purposes. Highways, railroads, and other transportation facilities are mapped as a part of Urban and Built-up Land if they are a part of the surrounding urban areas.

“Other Land” is all other land that does not meet the criteria of any other category.

Table 3.2-3 provides a summary amount and type of total acreage in Stanislaus County between 2002 and 2010, using the classifications of agricultural land provided by the California Department of Conservation FMMP, as set forth on the County’s Important Farmland Map. As shown in the table below, this acreage has remained relatively constant between 2002 and 2010. Between 2004 and 2010 this acreage has actually increase by 1.7 percent in total acreage.

**Table 3.2-3
Stanislaus County Important Farmland Summary**

Classification	Acres				
	2002	2004	2006	2008	2010
Prime Farmland	260,372	262,045	256,605	256,166	253,435
Farmland of Statewide Importance	30,073	29,747	29,925	31,448	31,474
Unique Farmland	61,556	70,137	75,444	81,367	87,527
Farmland of Local Importance	29,537	35,050	33,706	31,160	31,366
Important Farmland Total	381,538	396,979	395,680	400,141	403,802
Total County Area	869,338	970,168	970,169	970,171	970,171

Notes:

(1) Total Acreage Inventoried increased by 100,830 acres in 2004 due to the availability of soil survey data in the northeastern part of the county.

With this addition, Stanislaus County is now 100 percent.

Source: California Department of Conservation, 2004–2010.

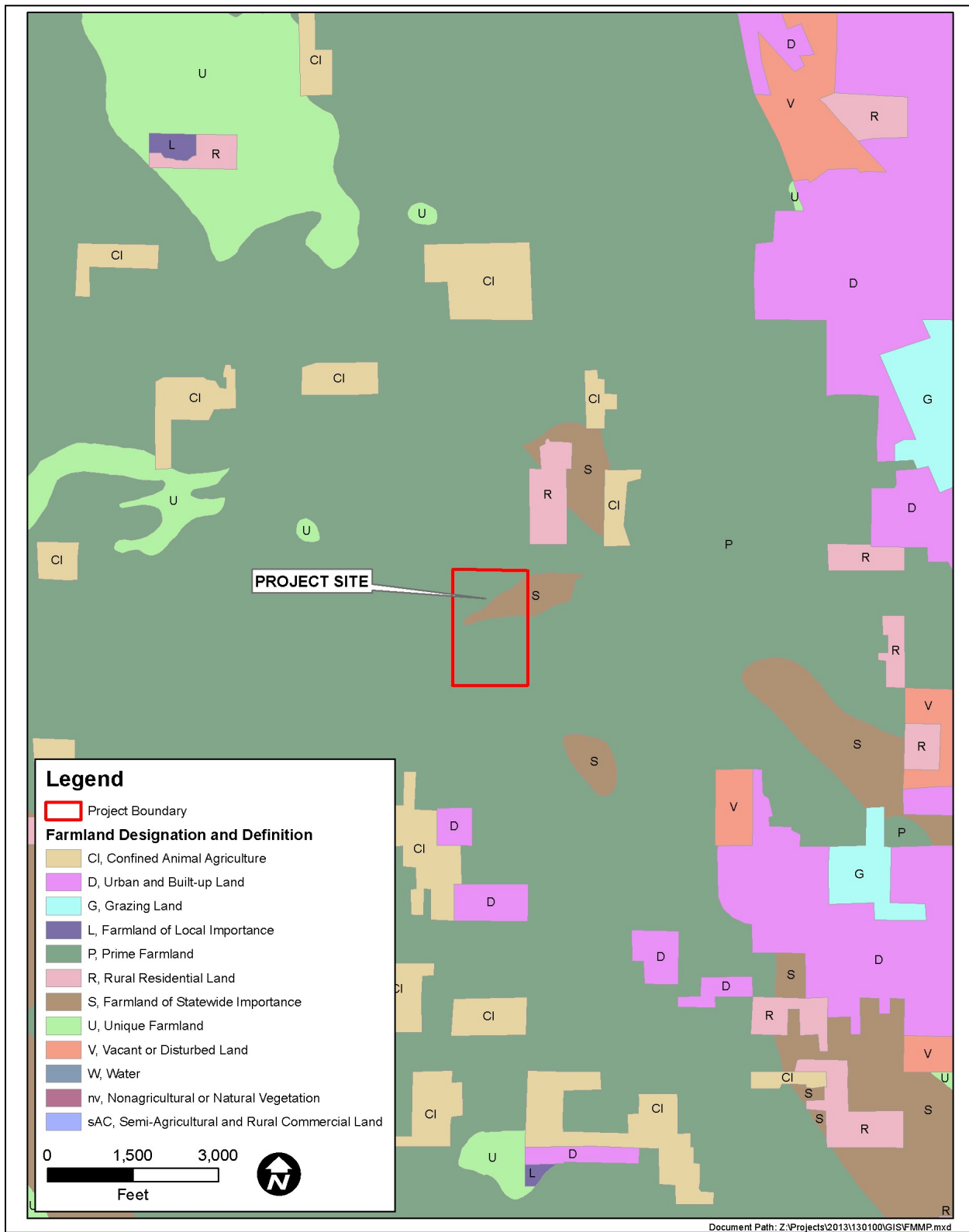
Project Site

LAND CLASSIFICATION

According to the FMMP (see Figure 3.2-1), the project site contains Prime farmland and Farmland of Statewide Importance.

SOIL SUITABILITY

The Land Capability Classification System is used by the USDA, NRCS to determine a soil’s agricultural productivity. The Land Capability Classification indicates the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops and the way they respond to management. Soils are rated from Class I to Class VIII, with soils having the fewest limitations receiving the highest rating (Class I). The “prime” soil classification indicates the absence of soil limitations, which if present, would require the application of management techniques (e.g., drainage, leeching, special fertilizing practices) to enhance production. Specific subclasses are also utilized to further characterize soils. A general description of soil classifications, as defined by NRCS, is provided below in Table 3.2-4.



FARMLAND MAPPING AND MONITORING PROGRAM

Figure 3.2 - 1

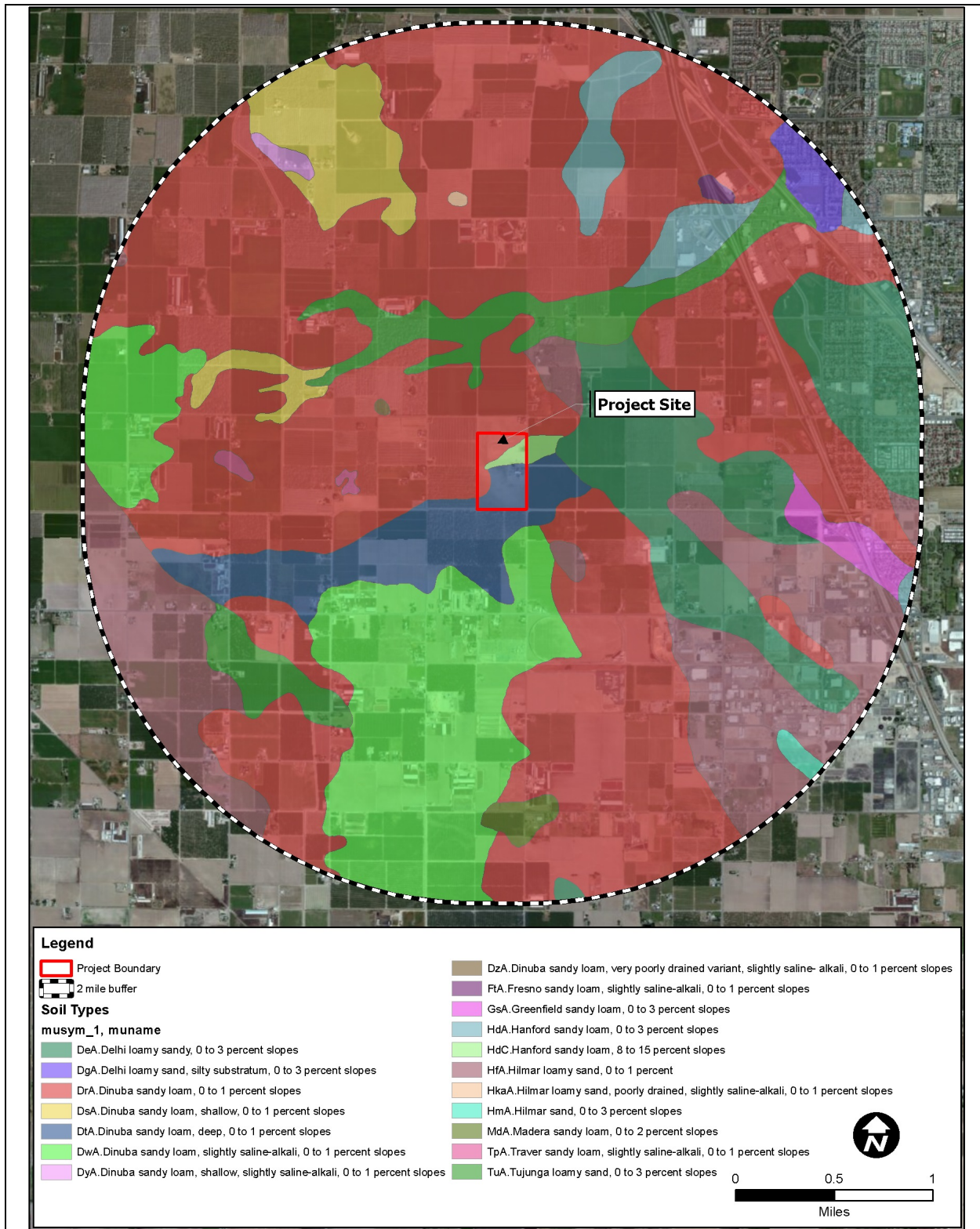
**Table 3.2-4
Land Capability Classification**

Soil Classification	Description
I	Soils have few limitations that restrict their use.
II	Soils have moderate limitations that reduce the choice of plants, or that require special conservation practices.
III	Soils have severe limitations that reduce the choice of plants, require conservation practices, or both.
IV	Soils have very severe limitations that reduce the choice of plants, require very careful management, or both.
V	Soils are not likely to erode but have other limitations; impractical to remove soils that limit their use largely to pastures or range, woodland, or wildlife habitat.
VI	Soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture, or range, woodland, or wildlife habitat.
VII	Soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to pasture or range, woodland or wildlife habitat.
VIII	Soils and landforms have limitations that preclude their use for commercial plant production and restrict their use to recreation, wildlife habitat, or water supply, or to aesthetic purposes.

Source: USDA Natural Resources Conservation Service, Web Soil Survey, 2012

Capability subclasses are soil groups within one class. They are designated by adding a small letter, e, w, s, or c, to the class numeral, for example, Iie. The letter e shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; w shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); s shows that the soil is limited mainly because it is shallow, droughty, or stony; and c, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

As shown in Figure 3.2-2 the project site contains three soil types. The project area itself is located in the Dinuba Loamy Sand, 0 to 1 percent slope (DrA) soil type. This soil type makes up approximately 66 percent of the soil in the approximate 160 acres in and around the project area. Table 3.2-5 presents the soil types, their designations, capability classifications, and the percent of the project site that it occupies.



SOILS MAP

Figure
3.2 - 2

**Table 3.2-5
Project Site Soils**

Symbol	Description	Farmland Designation	Soil Capability Classification	Percent of Total 61.7 Acres
DrA	Dinuba loamy sand, 0-1% slope	Prime	IIw	37%
HdC	Hanford sandy loam, 8-15% slope	Prime		12 %
DtA	Dinuba sandy loam, deep, 0-1% slope	Prime	IVe	51%

Source: USDA Natural Resources Conservation Service, 2012; Eastern Stanislaus Area, California

Within the project area, soil uses may be limited by water in or on the soil. Dinuba Loamy Sand (DrA) is typically found on 0-1 percent slopes. Dinuba Loamy Sand is moderately well drained and its parent material is granite-derived alluvium. Dinuba Loamy Sand is not a hydric soil and has low shrink swell potential. It meets the criteria for Prime Farmland. The Turlock General Plan Existing Conditions Report (Existing Conditions Report) characterizes Hanford Sandy Loam (HdC) as a granite-derived alluvium, which is well drained, non-hydric, and has a low shrink swell potential. Like the other soils in the area, it is Prime farmland when irrigated. The Existing Conditions Report characterizes Dinuba Sandy Loam (DtA) as a soil that constitutes Prime Farmland, if irrigated. Dinuba Sandy Loam is found covering most of the northwest, southwest, and eastern portions of the Turlock General Plan Planning Area. Dinuba Sandy Loam is moderately well drained and its parent material is granite-derived alluvium. Dinuba Sandy Loam is not a hydric soil and has low shrink swell potential. This type of soil has a hydrologic rating of A which results in low runoff potential and a high infiltration rate when thoroughly wetted (Table 3.6-2). Dinuba sandy loam classified soils cover approximately 51 percent of the proposed project site. These soils have a hydrologic rating of C which results in slow infiltration rate when thoroughly wet. The Kf factor for all soil types has a low erosion potential. Hilmar Loamy Sand is a Class IIIw soil (irrigated) and Class IVs (non-irrigated). Dinuba Sandy Loam is a Class IIw soil (irrigated) and Class IVs (non-irrigated).

STORIE INDEX

The Storie Index is a soil rating based on soil properties that govern a soil's potential for cultivated agriculture in California. Four factors that represent the inherent characteristics and qualities of the soil are considered in the index rating: profile characteristics, texture of the surface layer, slope, and other factors (e.g., drainage, salinity). A score ranging from 0 to 100 percent is determined for each factor, and the scores are then multiplied together to derive an index rating. Storie Index ratings have been combined into six grade classes as follows: Grade 1 (excellent), 100 to 80; Grade 2 (good), 79 to 60; Grade 3 (fair), 59 to 40; Grade 4 (poor), 30 to 20; Grade 5 (very poor), 19 to 10; and Grade 6 (nonagricultural), less than 10.

All of the soils on the project site have a good Storie Index rating of 2 because the soils have a high agricultural value.

WILLIAMSON ACT CONTRACTS

All parcels within the project area are under Williamson Act contract (Figure 3.2-3). The structures and uses proposed on the site are considered “compatible uses” and are permitted under Williamson Act under GC §51243(a).

3.2.3 IMPACT EVALUATION CRITERIA

Thresholds of Significance

According to the *CEQA Guidelines*, a project will have significant adverse impacts associated with agricultural resources if the project:

- a) *Converts Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses.*
- b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract.*
- c) *Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code § 12220(q), timberland (as defined by Public Resources Code § 4526), or timberland zoned Timberland Production (as defined by Government Code § 51104(g))? (Refer to Chapter 7, Effects Found Not To Be Significant).*
- d) *Result in the loss of forest land or conversion of forest land to non-forest use? (a) (Refer to Chapter 7, Effects Found Not To Be Significant).*
- e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.*

3.2.4 IMPACTS AND MITIGATION MEASURES

Impact #3.2-1 – Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses.

The project is within the County of Stanislaus, and is within the A- 2-40 (General Agriculture) Zoning District, with a General Plan Designation of Agriculture (AG). The land is designated under the FMMP as Prime Farmland or Farmland of Statewide Importance (see Figure 3.2-1). Approximately 16 percent is designated as Farmland of Statewide Importance, with the remainder designated as Prime farmland.



Document Path: Z:\Projects\2013\130100\GIS\Williamson Act.mxd



LANDS IN WILLIAMSON ACT

Figure 3.2-3

To qualify as Prime farmland, the land must have “been used for irrigated agricultural production at some time during the four years prior to the (latest) Important Farmland Map date.” The latest map was created in 2010. The land must also meet soil and water criteria conducive to agricultural production. Factors include, water moisture regimes, available water capacity, and developed irrigation water supply; soil temperature range; acid-alkali balance; water table; soil sodium content; flooding (uncontrolled runoff from natural precipitation); erodibility; permeability rate; rock fragment content; and soil rooting depth.

Farmland of Statewide Importance is land other than Prime Farmland which has a good combination of physical and chemical characteristics for the production of crops. It too must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date.

Conclusion: Because no conversion of Prime, Unique, or Farmland of Statewide Importance will occur, the project will result in *no impact*.

Mitigation Measures: No mitigation measures are required.

Impact #3.2-2 – Conflict with existing zoning for agricultural use, or a Williamson Act Contract.

The project is within Stanislaus County, and is within the A-2-40 (General Agriculture) Zoning District, with a General Plan Designation of Agriculture (AG). The Agricultural Element of the Stanislaus County General Plan outlines three goals: to strengthen the agricultural sector of the county’s economy; to conserve agricultural land for agricultural uses; and to protect the natural resources that sustain agriculture in the county. Policies supporting the second goal include promoting participation in the Williamson Act, discouraging farmland conversion to urban uses, and mitigating the impacts of converting farmland. The Stanislaus County Zoning Ordinance, Section 21.20.020 includes the permitted uses in the A-2 district:

B.3. Parcels of twenty acres or more in size: Two single family dwellings may be constructed on a parcel... Any parcel enrolled in the Williamson Act, and not subject to a “no build” restriction, shall be in agricultural use prior to the construction of any dwelling;

D. Buildings, appurtenances, and uses such as custom contract harvesting or land preparation where the buildings, appurtenances, or uses are incidental and accessory to the use of the subject property for farming purposes;

I. Detached accessory buildings, the use of which are incidental to, and reasonably related to, a main building on the same lot or to the primary use of the property as determined by the director of planning and community development;

N. Produce stands as defined and regulated in Chapter 21.90.

The proposed project is under Williamson Act contract. The project consists of the construction and operation of a warehouse, and the conversion or expansion of existing structures related to the production, harvesting, packing, and shipping of produce from the proponent's property and that of adjacent growers. The project also includes paving a portion of the property for parking of employees' vehicles and large trucks to ship the produce, resulting in approximately 26.73 acres of impervious surface. Although this impervious surface will preclude the use of the area for growing crops until such time that it may be converted back to farmland (which is not anticipated), the use of the property for "harvesting, processing, or shipping" is considered a compatible use under GC §51238.1.

Conclusion: The project will not conflict with existing zoning for agricultural use or a Williamson Act contract, and will therefore result in *no impact*.

Mitigation Measures: No mitigation measures are required.

Impact #3.2-3 – Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.

The project site is located just west of the Turlock city limits, and its Westside Industrial Specific Plan (WISP) area. Of the 61.7 acres included in the proposed project area, approximately 20 to 26 acres have been, and will remain in sweet potato production. The project would include paving and installation or expansion of structures, resulting in approximately 27 acres of impervious surface: this land has not been under agricultural production in recent years. A Blue Diamond almond processing facility is located on the east side of N. Washington Road, within the WISP area. Land to the west, south, and north of the project are within the County, and in agricultural production. The proposed project would be developed in accordance with General Plan policies, zoning codes, and Williamson Act contract provision, all of which are intended to avoid the premature conversion of agricultural lands.

Conclusion: The proposed project would not create new development pressures or result in changes to the environment that would result in the conversion of farmland to non-agricultural use. Impacts would be *less than significant*.

Mitigation Measures: No mitigation is necessary.

Impact #3.2-4 – Conflict with existing zoning for, or cause rezoning of forest land, timberland or timberland zoned Timberland Production.

The project site is located in the Central Valley, west of Turlock. The project site and surrounding lands are in agricultural production. There are no forests or timberlands in the vicinity.

Conclusion: Impacts to forest and timberlands would be *less than significant*.

Mitigation Measures: No mitigation is necessary.

Impact #3.2-5 – Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

The proposed project is located on two parcels totaling approximately 61.7 acres. Of this acreage, the property contains two dwellings, an existing barn of 8,424 square feet, an existing pole barn of 5,500 square feet, a produce stand of 64 square feet, and a milk barn of 144 square feet. Approximately 26.73 acres will be converted from agriculturally productive land to structures, parking, and related facilities in support of produce packing and distribution. An additional four acres will be converted from agricultural production for the expansion of the barn and the proposed 180,000 square foot warehouse. All of the existing structures, including the residence that will be converted to office use, are in support of agricultural activities.

Conclusion: There would be *no impacts* of the project resulting in the conversion of farmland or forest land to another use.

Mitigation Measures: No mitigation is necessary.

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3.3 Air Quality

This section provides an evaluation of the potential air quality impacts that would be caused by implementation of the proposed project. The discussion starts with an overview of regulation that is normally applicable to the air quality environmental factor, followed by a description of the physical setting of both the site and surrounding lands. An analysis is then provided to determine whether the impact(s) would be less than significant, significant without mitigation, or significant and unavoidable. If an impact is significant and can be reduced with mitigation, then a description of the mitigation measure(s) is provided. This section is based on the Air Quality and Greenhouse Gas Report, dated January 2013, prepared by Quad Knopf (Appendix B).

3.3.1 REGULATORY SETTING

Air pollutants are regulated at the national, State, and air basin level; each agency has a different degree of control. The United States Environmental Protection Agency (EPA) regulates at the federal level. The California Air Resources Board (ARB) regulates at the State level and SJVAPCD regulates at the air basin level.

Federal

U.S. ENVIRONMENTAL PROTECTION AGENCY

The EPA handles global, international, national, and interstate air pollution issues and policies. The agency sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, as well as provides research and guidance in air pollution programs and sets National Ambient Air Quality Standards (also known as federal standards). There are standards for six common air pollutants which are identified as criteria air pollutants that originated from provisions of the 1970 Clean Air Act. The six criteria pollutants are:

- Ozone;
- Particulate matter (PM10 and PM2.5);
- Nitrogen dioxide;
- Carbon monoxide (CO);
- Lead; and
- Sulfur dioxide.

Federal standards were set to protect public health, including that of sensitive individuals; thus, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants (Environmental Protection Agency 2012).

State

CALIFORNIA AIR RESOURCES BOARD

The State Implementation Plan for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. A State

Implementation Plan is prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain National Ambient Air Quality Standards. The State Implementation Plan incorporates individual federal attainment plans for regional air districts. Federal attainment plans prepared by each air district are sent to ARB to be approved and incorporated into the California State Implementation Plan. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring) control measures and strategies and enforcement mechanisms.

ARB also administers California Ambient Air Quality Standards for the 10 air pollutants designated in the California Clean Air Act. The 10 state air pollutants are the six criteria pollutants listed above as well as visibility reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride. Visibility-reducing particles are suspended particulate matter. Visibility is the distance through the air that an object can be seen without the use of instrumental assistance. Vinyl chloride is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. Visibility-reducing particles and vinyl chloride are not assessed in this analysis because the project would not be exposed to or generate those pollutants.

Federal and State ambient air quality standards are summarized in Table 3.3-1. The figures listed in the table come from the ARB's most recently updated 2013 standards.

Comparison is made throughout the remainder of this report to the standards listed in Table 3.3-1. Further details are also provided on the health risks associated of each pollutant in other sections throughout this report.

Renewable Portfolio Standard (RPS)

In 2002, SB 1078 required electric utilities to increase procurement of power generated by eligible renewable energy sources to 20 percent of total generation by 2017. In 2006, SB 107 accelerated the timetable to require 20 percent renewable energy by 2010. Then, in 2008, Governor Schwarzenegger signed Executive Order S-14-08, which increased the required renewables content to 33 percent by 2020. In September 2009, the Governor signed Executive Order S-21-09, which directed the Air Resources Board to adopt regulations consistent with the 33 percent renewable energy target in Executive Order S-14-08.

In the ongoing effort to codify the ambitious 33 percent by 2020 goal, SB X1-2 was signed by Governor Edmund G. Brown, Jr., in April 2011. This new RPS preempts the ARB's 33 percent Renewable Electricity Standard and applies to all electricity retailers in the state including publicly owned utilities (POUs), investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must adopt the new RPS goals of 20 percent of retail sales from renewables by the end of 2013, 25 percent by the end of 2016, and the 33 percent requirement being met by the end of 2020.

**Table 3.3-1
Federal and State Ambient Air Quality Standards**

Pollutant	Averaging Time	Ambient Air Quality Standards				
		Concentration ³	California Standards ¹ Method ⁴	Primary ^{3,5}	National Standards ² Secondary ^{3,6}	Method ⁷
Ozone (O ₃)	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.075 ppm (147 µg/m ³)		
Respirable Particulate Matter (PM ₁₀) ⁸	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³				
Fine Particulate Matter (PM _{2.5}) ⁸	24 Hour	—	Gravimetric or Beta Attenuation	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³		12.0 µg/m ³		
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—		
Nitrogen Dioxide (NO ₂) ⁹	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)		
Sulfur Dioxide (SO ₂) ¹⁰	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		0.5 ppm (1300 µg/m ³)		
	24 Hour	0.04 ppm (105 µg/m ³)		—		
	Annual Arithmetic Mean	—		0.14 ppm (for certain areas) ¹⁰		
Lead ^{11,12}	30 Day Average	1.5 µg/m ³	Atomic Absorption	0.030 ppm (for certain areas) ¹⁰	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ¹²		
	Rolling 3-Month Average	—		0.15 µg/m ³		
Visibility Reducing Particles ¹³	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards	—	—
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography	—	—	—
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence	—	—	—
Vinyl Chloride ¹¹	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography	—	—	—

Source: California Air Resources Board, 2013.

Notes: ppm = Parts Per Million, µg/m³ = micrograms per cubic meter, and mg/m³ = milligrams per cubic meter.

- California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
- Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
- National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
- On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
- The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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Title 24: Although it was not originally intended to reduce greenhouse gas emissions, California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. All buildings for which an application for a building permit is submitted on or after January 1, 2011 must follow the 2008 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

California Green Building Standards: On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which went into effect on January 1, 2011. The Code is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings.

The California Green Building Standards Code does not prevent a local jurisdiction from adopting a more stringent code as State law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50-percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard, which buildings need to meet in order to be certified for occupancy. Enforcement is generally through the local building official.

The California Green Building Standards Code (code section in parentheses) requires:

- Short-term bicycle parking. If a commercial project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for five percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack (5.106.4.1);
- Long-term bicycle parking. For buildings with over 10 tenant-occupants, provide secure bicycle parking for five percent of tenant-occupied motorized vehicle parking capacity, with a minimum of one space (5.106.4.2);
- Designated parking. Provide designated parking in commercial projects for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.6.2 (5.106.5.2);
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling;
- Construction waste. A minimum 50-percent diversion of construction and demolition waste from landfills, increasing voluntarily to 65 and-75 percent for new homes and 80-percent for

commercial projects. All (100 percent) of trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled;

- Wastewater reduction. Each building shall reduce the generation of wastewater by one of the following methods:
 - The installation of water-conserving fixtures; or
 - Using non-potable water systems (5.303.4).
- Water use savings. 20-percent mandatory reduction in indoor water use with voluntary goal standards for 30, 35, and 40-percent reductions;
- Water meters. Separate water meters for buildings in excess of 50,000 square feet for buildings projected to consume more than 1,000 gallons per day;
- Irrigation efficiency. Moisture-sensing irrigation systems for larger landscaped areas;
- Materials pollution control. Low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particleboard; and
- Building commissioning. Mandatory inspections of energy systems (i.e. heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies.

Low Carbon Fuel Standard - Executive Order S-01-07: Executive Order S-01-07 was signed by the Governor on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. It also requires that a Low Carbon Fuel Standard for transportation fuels be established for California.

Toxic Air Contaminant Regulation

The ARB's toxic air contaminant program traces its beginning to the criteria pollutant program in the 1960s. For many years, the criteria pollutant control program has been effective at reducing toxic air contaminants, since many volatile organic compounds and PM constituents are also toxic air contaminants. During the 1980s, the public's concern over toxic chemicals heightened. As a result, citizens demanded protection and control over the release of toxic chemicals into the air. In response to public concerns, the California legislature enacted the Toxic Air Contaminant Identification and Control Act governing the release of toxic air contaminants into the air. This law charges the ARB with the responsibility for identifying substances as toxic air contaminants, setting priorities for control, adopting control strategies, and promoting alternative processes. The ARB has designated almost 200 compounds as toxic air contaminants. Additionally, the ARB has implemented control strategies for a number of compounds that pose high health risk and show potential for effective control (Department of Conservation 2000).

In 2005, the ARB approved an Air Toxics Control Measure (ATCM) to limit diesel-fueled commercial motor vehicle idling to reduce emissions of toxics and criteria pollutants. The driver of any vehicle subject to this section (1) shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location and (2) shall not idle a diesel-fueled auxiliary power system for more than 5 minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it has a sleeper berth and the truck is located within 100 feet of a restricted area (homes and schools) (2012).

Naturally Occurring Asbestos Regulation

The ARB has an ATCM for construction, grading, quarrying, and surface mining operations requiring the implementation of mitigation measures to minimize emissions of asbestos-laden dust. This ATCM applies to road construction and maintenance, construction and grading operations, and quarries and surface mines when the activity occurs in an area where naturally occurring asbestos is likely to be found. Areas, such as the project site, are subject to the regulation if they are identified on maps published by the Department of Conservation as ultramafic rock units or if the Air Pollution Control Officer or owner/operator has knowledge of the presence of ultramafic rock, serpentine, or naturally occurring asbestos on the site. The ATCM also applies if ultramafic rock, serpentine, or asbestos is discovered during any operation or activity (California Air Resources Board 2001).

California Air Resources Board Land Use Handbook

In 2005, the ARB adopted the Air Quality and Land Use Handbook: A Community Health Perspective (Land Use Handbook). The Land Use Handbook provides information and guidance on siting sensitive receptors in relation to sources of toxic air contaminants. The sources of toxic air contaminants identified in the Land Use Handbook are high-traffic freeways and roads, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and large gasoline dispensing facilities. The proposed project does not fall within the sources identified in the Handbook. If the project involves siting a sensitive receptor or source of toxic air contaminant discussed in the Land Use Handbook, siting mitigation may be added to avoid potential land use conflicts, thereby reducing the potential for health impacts to the sensitive receptors (California Environmental Protection Agency, California Air Resources Board 2005).

Regional

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

The air pollution control agency for the San Joaquin Valley Air Basin (SJVAB) is the SJVAPCD. The agency is responsible for regulating emissions primarily from stationary sources, certain area-wide sources, and indirect sources and maintains air quality monitoring stations throughout the SJVAB. Other responsibilities include coordinating with eight countywide transportation agencies in the development, update, and implementation of the Air Quality Plans (AQPs) for the Air Basin. In addition, the SJVAPCD has prepared the Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) (2002), which sets forth recommended thresholds of significance, analysis methodologies, and provides guidance on mitigating significant impacts. Currently, the 2012 GAMAQI is undergoing administrative

revisions. As such, information from the 2012 version was utilized to update outdated information from the 2002 GAMAQI such as the attainment status listed in Table 3.3-2.

**Table 3.3-2
San Joaquin Valley Air Basin Attainment Status**

Pollutant	State Status	National Status
Ozone-One hour	Revoked in 2005	Nonattainment/Severe
Ozone - Eight hour	Nonattainment/Extreme	Nonattainment
PM 10	Attainment	Nonattainment
PM 2.5	Nonattainment	Nonattainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Lead (Particulate)	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

Source: San Joaquin Valley Air Pollution Control District, 2012a.

San Joaquin Valley Attainment Status

The EPA and the ARB designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

The proposed project is within the SJVAB. The current attainment designations for the basin are shown in Table 3.3-2.

The basin is designated as nonattainment for the State and national ozone, and PM2.5, ambient air quality standards. The basin is designated as attainment for federal PM10 standards and nonattainment for State PM10 standards.

Attainment Plans

As described above under federal and State Regulatory Agencies, a State Implementation Plan is a federal requirement; each state prepares a plan to describe existing air quality conditions and measures that will be followed to attain and maintain the National Ambient Air Quality Standards. In addition, state ozone standards have planning requirements. However, state PM10 standards have no attainment planning requirements, but air districts must demonstrate that all measures feasible for the area have been adopted.

Ozone Plans

The SJVAB is designated nonattainment of State and federal health-based air quality standards for ozone. To meet CAA requirements for the one-hour ozone standard, the SJVAPCD adopted

an Extreme Ozone Attainment Demonstration Plan in 2004, with an attainment date of 2010. The EPA revoked the federal 1-hour ozone standard and replaced it with an 8-hour standard. Although the EPA revoked the 1-hour ozone standard effective June 15, 2005, the requirement to submit a plan for that standard remained in effect for the San Joaquin Valley. On June 30, 2009, the EPA proposed approval and partial disapproval of San Joaquin Valley's 2004 Extreme Ozone Attainment Plan for 1-hour ozone. The EPA proposed to approve the plan revisions for the San Joaquin Valley as meeting applicable Clean Air Act requirements except for the provision addressing the reasonably available control technology requirements that the State withdrew. On December 11, 2009, the final approval of the San Joaquin Valley's 2004 Extreme Ozone Attainment Demonstration Plan was signed by the EPA. The plan, prepared by the SJVAPCD, showed that the area would have in place the controls necessary to meet the 1-hour ozone standard by the area's Clean Air Act deadline of 2010, however the SJVAPCD was unable to show attainment by the 2010 deadline. As a result, pursuant to Section 185 of the Clean Air Act, the SJVAPCD Governing Board approved amendments to Rule 3170 to provide for a \$12 per vehicle fee to all motor vehicles registered in the SJVAB to achieve surplus emissions reductions to remediate air pollution problems caused by motor vehicles. The vehicle fee will sunset upon attainment of the one-hour ozone standard. An anticipated attainment date has not been provided by the SJVAPCD.

The SJVAB is classified as serious nonattainment for the federal 8-hour ozone standard with an attainment date of 2013. On April 30, 2007, the SJVAPCD's Governing Board adopted the 2007 Ozone Plan, which contained analysis showing a 2013 attainment target to be unfeasible. The 2007 Ozone Plan details the plan for achieving attainment on schedule with an "extreme nonattainment" deadline of 2026. At its adoption of the 2007 Ozone Plan, the SJVAPCD also requested a reclassification to extreme nonattainment. The California ARB approved the plan in June 2007.

In December 2008, the SJVAPCD adopted the "Amendment to the 2007 Ozone Plan to Extend the Rule Adoption Schedule for Organic Waste Operations". This amendment revised a table of the 2007 plan to extend the completion date for the Composting Green Waste control measure to the fourth quarter of 2010. This extension allows time for further study before rule adoption, and this rule extension does not impact reasonable further progress or the attainment demonstration. The EPA proposed approval of the 2007 Ozone Plan in October 2011.

State ozone standards do not have an attainment deadline but require implementation of all feasible measures to achieve attainment at the earliest date possible.

Particulate Matter Plans

The SJVAB was designated nonattainment of State and federal health-based air quality standards for PM10. To meet Clean Air Act requirements for the PM10 standard, the SJVAPCD adopted a PM10 Attainment Demonstration Plan (Amended 2003 PM10 Plan and 2006 PM10 Plan), which has an attainment date of 2010.

On September 20, 2007, the SJVAPCD adopted the 2007 PM10 Maintenance Plan and Request for Redesignation. The 2007 PM10 Plan contains modeling demonstrations that show the

SJVAB will not exceed the federal PM10 standard for 10 years after the expected the EPA redesignation, monitoring, and verification measures, and a contingency plan. Even though the EPA revoked the federal annual PM10 standard, the 2007 PM10 Maintenance Plan addresses both the annual and 24-hour standards because both standards were included in the EPA-approved State Implementation Plan. EPA finalized the determination that the SJVAB attained the PM10 standards on October 17, 2007, effective October 30, 2007. On September 25, 2008, the EPA redesignated the SJVAB as attainment for the federal PM10 standard and approved the PM10 Maintenance Plan.

The SJVAB is also designated nonattainment for the new federal PM2.5 annual standard. The SJVAPCD adopted the 2008 PM2.5 Plan on April 30, 2008. The PM2.5 Plan that demonstrates the SJVAB will attain the 1997 federal standard by 2015 and make progress toward attaining the 2006 federal 24-hour standard. Barring delays due to legal challenges, the SJVAPCD estimates that attainment plans for the federal 2006 standard will be required by 2012 or 2013 with an attainment deadline of 2020. Measures contained in the 2003 PM10 Plan will also help reduce PM2.5 levels and will provide progress toward attainment until new measures are implemented for the PM2.5 Plan, if needed.

State PM10 standards have no attainment planning requirements, but air districts must demonstrate that all measures feasible for the area have been adopted.

Rules Applicable to the Project

The SJVAPCD rules and regulations that apply to this project include, but are not limited to, the following:

Regulation VIII Fugitive PM10 Prohibitions: Rules 8011-8081 are designed to reduce PM10 emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and trackout, etc.;

SJVAPCD Rule 3180: Administrative Fees for Indirect Source Review (ISR). The purpose of this rule is to recover the SJVAPCD's costs for administering the requirements of Rule 9510 (Indirect Source Review);

SJVAPCD Rule 9510: Indirect Source Review. This rule reduces the impact of NOx and PM10 emissions from growth on the Air Basin. The rule places application and emission reduction requirements on development projects meeting applicability criteria in order to reduce emissions through onsite mitigation, offsite SJVAPCD-administered projects, or a combination of the two. This rule applies to new developments seeking a final discretionary approval that are over a certain threshold size. Any of the following projects require an application to be submitted unless the projects have mitigated emissions of less than two tons per year each of NOx and PM10. Projects that are at least:

- 50 residential units;
- 2,000 square feet of commercial space;

- 9,000 square feet of educational space;
- 10,000 square feet of government space;
- 20,000 square feet of medical or recreational space;
- 25,000 square feet of light industrial space;
- 39,000 square feet of general office space;
- 100,000 square feet of heavy industrial space; and
- Or, 9,000 square feet of any land use not identified above.

Compliance with Rule 9510: ISR: Compliance with SJVAPCD Rule 9510 reduces the emissions impact of the project through incorporation of onsite measures as well as payment of an offsite fee that funds emission reduction projects in the Air Basin. The emissions analysis for Rule 9510 is highly detailed and is dependent on the exact project design that is expected to be constructed or installed. Compliance with Rule 9510 is separate from the CEQA process, though the control measures used to comply with Rule 9510 may be used to mitigate CEQA impacts. Minor changes to project components between the CEQA analysis and project construction often occur. An example of such a change is a change in construction year, operational year, etc. The required amounts of emission reductions required by Rule 9510 are as follows:

- *Construction Exhaust:* 20 percent of the total NOx emissions, and 45 percent of the total PM10 emissions; and
- *Operational Emissions:* 33 percent of NOx emissions over the first 10 years, 50 percent of the PM10 emissions over the first 10 years.

Rule 9510 requires the submission of an Air Impact Assessment application to the SJVAPCD no later than applying for the final discretionary permit. The proposed project will comply with this requirement at the time final discretionary permits are sought.

STANISLAUS COUNCIL OF GOVERNMENTS (STANCOG)

As designated by the federal government and the State, the Stanislaus Council of Governments (StanCOG) is the Metropolitan Planning Organization (MPO) and Regional Transportation Planning Agency (RTPA) for the Stanislaus Region. StanCOG is a public organization that works with governments and the public to address issues and needs that occur across city and county boundaries.

In 1971, StanCOG was formed by a Joint Powers Agreement to address regional transportation issues throughout the region. The council of city and county governments includes the cities of: Ceres, Hughson, Modesto, Newman, Oakdale, Patterson, Riverbank, Turlock, Waterford, and Stanislaus County.

StanCOG is responsible for creating various transportation plans and for allocating the federal and State funds to implement them. Although the organizations/agencies main function is to oversee regional transportation planning and funding, StanCOG is also involved in air quality and other issues that affects the County (Stanislaus Council of Governments 2013a).

2011 Regional Transportation Plan

The 2011 Regional Transportation Plan (RTP) is the blueprint used to address the many challenges facing the transportation system. This long range plan contains an integrated set of goals, objectives, and actions to maintain, manage, and improve the transportation system in Stanislaus County through the year 2035.

The plan's strategy is to accommodate growth of the region by improving the movement of goods and people while maximizing the benefit of each dollar spent on the transportation system. At the core of the 2011 RTP are five goals:

- **Mobility:** Improve the opportunity and ability of people to travel between jobs, schools, and homes; and to efficiently move goods;
- **Safety and System Preservation:** Operate and maintain the transportation system to ensure public safety and to protect the region's transportation investment;
- **Environmental Quality:** Consider the environmental impacts when making transportation investments, and minimize direct and indirect impacts on the environment for cleaner air and natural resources;
- **Economic/Community Vitality:** Foster job creation and business attraction, retention and expansion by improving the movement of goods, services and our local workforce while revitalizing our communities; and
- **Social Equity:** Promote and provide equitable opportunities to access transportation services for the full spectrum of the population. Ensure that economically, physically, and socially disadvantaged groups have access to transportation services and share in benefits of transportation improvements.

Conformity with air quality is performed by StanCOG on all regionally significant, non-exempt transportation projects to ensure those projects conform to the Environmental Protection Agency (EPA) regulations (Stanislaus Council of Governments 2011).

San Joaquin Valley Regional Blueprint

In early 2006 the eight Councils of Governments in the San Joaquin Valley came together in an unprecedented effort to develop a coordinated valley vision – the San Joaquin Valley Regional Blueprint. This venture of eight counties is being conducted in each county, and has recently been integrated to form a preferred vision for future development throughout the Valley to the year 2050.

On April 1, 2009 the San Joaquin Valley (SJV) Regional Policy Council reviewed the Valley COGs' collaborative work on the Blueprint and took the following actions:

1. Adopted a list of Smart Growth Principles to be used as the basis of Blueprint planning in the San Joaquin Valley; and
2. Adopted Scenario B+ as the Preferred Blueprint Growth Scenario for the San Joaquin Valley to the year 2050. This preferred scenario will serve as guidance for the Valley's local jurisdictions with land use authority as they update their general plans.

Of the eight counties, the Stanislaus Council of Governments (StanCOG) is included. The seven other counties include Fresno, Kern, Kings, Madera, Merced, San Joaquin, and Tulare.

2013 Federal Transportation Improvement Program

In cooperation with the California Department of Transportation (Caltrans), the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), StanCOG's developed the 2013 Federal Transportation Improvement Program (FTIP) which is a region wide, multi-year, intermodal program of transportation projects. The 2013 FTIP programs the region's projects over the next four fiscal years (2012/13, 2013/14, 2014/15 and 2015/16) for State and federal approval. In order to secure federal funding for transportation programming in the Stanislaus region, the FTIP must comply with federal regulations pertaining to programming (Stanislaus Council of Governments 2013b).

StanCOG Non-Motorized Transportation Master Plan (2008)

In order to improve the bicycle and pedestrian network, the StanCOG along with other governments and agencies, and the communities of Stanislaus County worked together in development of the plan. "The Plan provides both a countywide understanding of existing conditions and countywide priority bicycle and pedestrian network as well as existing conditions analysis and recommended network for the unincorporated County and each of the nine Stanislaus County cities. The document structure reflects this: Each jurisdiction has a specific stand-alone chapter, which can then be adopted by local agencies". The plan was developed to:

- Increase Bicycle and Pedestrian Access: Expand bicycle and pedestrian facilities and access in and between neighborhoods, employment centers, shopping areas, schools, and recreational sites, in pursuit of the goal of having 20% of all trips made by walking or biking by 2020;
- Increase Bicycle Use: Make the bicycle an integral part of daily life in Stanislaus County, particularly for trips of less than five miles, by implementing and maintaining a bikeway network, providing end-of-trip facilities, improving bicycle/transit integration, encouraging bicycle use, and making bicycling safer and more convenient; and
- Increase Pedestrian Activity: Encourage walking as a daily form of transportation in Stanislaus County by completing a pedestrian network that services short trips and transit, improving the quality of the pedestrian environment, improving the health of all citizens, and increasing safety, convenience and access opportunities for all users. (Stanislaus Council of Governments 2008).

The Draft 2013 StanCOG Non-Motorized Transportation Master Plan will replace the 2008 StanCOG Non-Motorized Transportation Master Plan.

Local

STANISLAUS COUNTY

General Plan

Pursuant to California Code Title 14, Section 65300 the 1994 Stanislaus County General Plan addresses air quality in several of its elements including the Conservation and Open Space Element, Agricultural Element, and its Circulation and Safety Elements. The plan also includes local, regional, State, and federal programs and regulations as well as a comprehensive set of guiding and implementing policies, listed below:

CON/SE: Policy Nineteen-The County will strive to accurately determine and fairly mitigate the local and regional air quality impacts of proposed projects;

CON/SE: Policy Twenty-The County shall strive to reduce motor vehicle emissions by reducing vehicle trips and vehicle miles traveled and increasing average vehicle ridership;

AGI: Policy 1.21- The County shall continue to work with local, State and federal agencies to ensure the safety of food produced in Stanislaus County and to maintain a local regulatory framework promoting environmental safety while ensuring the economic viability of agriculture;

AGI: Policy 3.1- The County shall continue to coordinate with the San Joaquin Valley Air Pollution Control District;

AGI: Policy 3.3- The County shall encourage the development and use of improved agricultural practices that improve air quality and are economically feasible;

CIR: Policy One- Development will be permitted only when facilities for circulation exist, or will exist as part of the development, to adequately handle increased traffic;

CIR: Policy Two- Circulation systems shall be designed and maintained to promote safety and minimize traffic congestion; and

SAF: Policy Six- All new development shall be designed to reduce safety and health hazards.

Because greenhouse gas emissions are often part of the pollutants this most projects will emit, these same policies will also apply to Section 3.7 of this Draft EIR.

CITY OF TURLOCK

Westside Industrial Specific Plan

As previously mentioned, both sides of North Washington Street are in the Turlock city limits. The road is classified as an expressway in the Turlock General Plan. In addition to landscape screening for onsite parking areas, frontage improvements including curb, gutter, and sidewalk will be required along with a right turn lane into the project site. The proposed driveway would be aligned with the new traffic signal into the Blue Diamond facility on North Washington Road. All of these activities would generate pollution and be directly related to air quality issues. Compliance with the Westside Industrial Specific Plan will include the following policies:

R-P 16: Cooperate with the San Joaquin Valley Air Pollution Control District (SJVAPCD) in its procedures to implement the Air Quality Management Plan (AQMP);

R-P 17: Minimize public exposure to toxic or hazardous air pollutants;

R-P 32: Minimize public exposure to pollutants that create a public nuisance, such as unpleasant odors;

R-P 34: Comply with the SJVAPCD Compliance Assistance Bulletin for Fugitive Dust Control at Construction Sites;

R-P 35: Project development applicants shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction;

R-P 36: Construction activity plans shall include and/or provide for a dust management plan to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard;

R-P 37: Soils stabilization is required at all construction sites after normal working hours and on weekends and holidays, as well as on inactive construction areas during phased construction. Methods include short-term water spraying, and long-term dust suppressants and vegetative cover;

R-P 38: Construction equipment shall be equipped with particulate filters and/or catalysts, or proof shall be provided as to why it is infeasible;

R-P 39: Diesel engines shall be shut off while not in use to reduce emissions from idling. Minimize idling time of all other equipment to 10 minutes maximum;

R-P 40: Sandbag, or other erosion control measures, shall be installed to prevent silt runoff to public roadways from construction sites with a slope greater than one percent (1%);

R-P 41: Wheels on all trucks and other equipment shall be washed prior to leaving the construction site;

R-P 42: Wind breaks shall be installed at windward sides of construction areas;

R-P 43: Suspend excavation and grading activities when winds exceed 20 mph;

R-P 44: Limit areas subject to excavation, grading, and other construction activities at any one time;

R-P 45: Limit and expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours;

R-P 46: Use alternative fuel construction equipment, where feasible; and

R-P 47: Construction activities shall be curtailed during periods of high ambient pollutant concentration. This may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways, including SR 99.

Chapters 5 and 3 of the WISP plan provide a detailed overview of the specific plan area, including its infrastructure and services and land use objectives as related to air quality (City of Turlock 2006). The plan can be accessed at the City of Turlock's website using the following path:

<http://www.ci.turlock.ca.us/pdflink.asp?pdf=documents/developmentservices/planning/guidelines/WISP.pdf?o=o&title=Westside%20Industrial%20Specific%20Plan>.

3.3.2 PHYSICAL SETTING

Topography and Climate

Stanislaus County is within the SJVAB. Among California's air basins, the SJVAB is the second largest at approximately 250 miles long. The basin is surrounded by the Sierra Nevada Mountains to the east (8,000 to 14,000 feet elevation), the Coast Ranges to the west (average 3,000 feet elevation), and the Tehachapi Mountains to the south (6,000 to 8,000 feet elevation) (San Joaquin Valley Air Pollution Control District 2003).

Climate of the SJVAB is classified as "inland Mediterranean". During the summer average temperatures in the basin are around 95° Fahrenheit (F), with highs exceeding 100° F. The summers are characterized as hot and dry. Winter temperatures can fluctuate between 35° F to 55° F. Average temperatures in January are about 44° F. At times the valley floor drops below freezing.

Precipitation in the SJVAB averages around 10 inches, with approximately 90 percent occurring between November and April. Most of the rainfall occurs in northern and eastern parts of the

SJVAB. The weather pattern is controlled by the “Pacific High¹” which consists of a semi-permanent subtropical high-pressure belt (2003).

INVERSIONS AND AIRFLOW

When air temperatures increase with elevation, inversion layers are created as “vertical mixing” occurs. This abnormal pattern prevents the upward flow of air and thereby traps pollutants near the ground surface. There are two types of inversion layers in the SJVAB identified as radiation inversions and subsidence inversions:

Radiation inversions (vertical mixing) occur when nocturnal cooling takes place near the surface of the ground, and extends upward for several hundred feet. This type of inversion is usually associated with a still evening air and no clouds. According to the SJVAPCD:

During summer months, daytime heat from the sun lifts the inversion to heights anywhere from 2,000 to over 5,000 feet (even higher over mountain ranges due to heating of the slopes), which helps disperse pollutants and lowers their concentrations. However, these same summer daytime conditions also increase ozone production, which can neutralize or offset the effects of enhanced vertical dispersion. Studies have shown that radiation inversions tend to persist longer into daylight hours in the southern part of the SJVAB due to a lack of marine air intrusion and associated atmospheric mixing. On the worst dispersion days the inversion may remain only a few hundred feet above the surface of the SJVAB (2003).

Subsidence inversions (horizontal mixing) occur when air descends downward and warms due to compression. This type of inversion is quite persistent, since heat from the ground does not reach the inversion base to break it up. High pressure ridges over the State are associated with subsidence inversions.

Inversions occur during all seasons, but are more persistent in the winter months at 50 to 1,000 feet above the basin floor. Inversion layers are responsible for ozone formation and increase levels of CO and PM10. High ozone events can be linked to air pollutant emissions build up in the atmosphere below the inversion. During these occasions, it is not uncommon for one-hour ozone precursors to exceed federal standards. “During many high ozone level events, the SJVAB is likely experiencing a combination of radiation and subsidence inversions”. Particulate Matter concentrations grow rapidly where inversion layers occur, and cause a regional buildup of secondary species including ammonium nitrate, and chemically aged organic carbon species which results in an increase of toxicity (San Joaquin Valley Air Pollution Control District 2004).

¹ “The (North) Pacific (Hawaiian) High is a semi permanent cell of high pressure centered in the eastern Pacific from 35 to 45 degrees N.” (Oliver, 2005)

Air pollution is transported by the dominant airflows through the SJVAB. Figure 3.3-1 provides an illustration of the air basin which is identified in brown. When winds mix at high velocity, the transport of pollutants is great. Transport of pollutants is guided by both the wind's speed and direction (vertical or horizon mixing). According to the SJVAPCD:

Wind speed and direction data indicate that during the summer the light and variable winds usually result from an influx of air from the Pacific Ocean through the Bay Area delta region, entering the north end of the valley. The wind generally flows in a south-southeasterly direction through the valley, through the Tehachapi Pass, and into the Southeast Desert Air Basin portion of Kern County (San Joaquin Valley Air Pollution Control District 2003).

The result of these conditions is a relatively high concentration of air pollution in the valley during inversion episodes. Inversions cause haziness, which in addition to moisture may include suspended dust, emissions from vehicles, particulates from wood stoves, and other pollutants.


REGIONAL AIR QUALITY

The United States Environmental Protection Agency (EPA) has designated the SJVAB in extreme nonattainment area under the federal 8-hour ozone standard, and in nonattainment for PM2.5. The ARB has designated the SJVAB in severe nonattainment under the 1-hour ozone designation, and in nonattainment for the State's PM10 and PM2.5 standards. The SJVAB meets the federal and State standards or is unclassifiable for all other pollutants.

San Joaquin Valley Emissions Inventory

Emissions inventory information is compiled by the ARB and is available on its Almanac Emission Projection Data website. Table 3.3-3 summarizes the SJVAB's most recently available emissions inventory estimate for the main pollutants of concern. Included are reactive organic gases (ROG), carbon monoxide (CO), oxides of nitrogen (NOx), and particulate matter (PM). Particulate matter is a general category that is further divided by the size of the particulates, into PM10 for particulates 10 microns or less in diameter, and PM2.5 for particulates 2.5 microns or less in diameter.



 <p>Quad Knopf</p>	<p>CALIFORNIA AIR BASINS</p>	<p>Figure 3.3-1</p>
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**Table 3.3-3
2008 San Joaquin Valley Air Basin Emissions Inventory**

Emissions Classification	Emission Category	Pollutants (tons per day)				
		ROG	CO	NO _x	PM10	PM2.5
Stationary	Fuel Combustion	11.1	36.3	57.9	6.9	6.7
	Waste Disposal	2.6	0.5	0.2	0.1	0.1
	Cleaning and Surface Coatings	15.3	0.0	0.0	0.1	0.1
	Petroleum Production and Marketing	36.1	1.1	.4	0.2	0.1
	Industrial Processes	18.6	4.0	21.4	17.8	10.4
	Total Stationary	83.7	41.8	80.0	25.1	17.5
Area-wide	Solvent Evaporation	58.9	-	-	-	-
	Miscellaneous Processes	90.6	268.4	17.9	250.9	67.7
	Total Area-wide	149.5	268.4	17.9	250.9	67.7
Mobile	On-Road Motor Vehicles	79.2	705.6	330.0	14.6	11.8
	Other Mobile Sources	56.9	336.5	138.2	9.1	8.3
	Total Mobile	136.1	1,042.1	468.2	23.7	20.2
Natural (Non-Anthropogenic)	Biogenic Sources	210.8	-	-	-	-
	Geogenic Sources	0.3	-	-	-	-
	Wildfires	24.2	347.5	10.6	35.1	29.8
	Total Natural	235.2	347.5	10.6	35.1	29.8
San Joaquin Valley Air Basin Total*		604.4	1,699.7	576.7	334.8	135.1

Source: California Air Resources Board, 2008a.

Notes: *Total based on non-rounded emissions estimates.

Stanislaus County Emissions Inventory

Table 3.3-4 summarizes Stanislaus County's most recently available emissions inventory estimate for the main pollutants of concern for the SJVAB. Each emissions classification is broken down by the emission category.

**Table 3.3-4
2008 Stanislaus County Emissions Inventory**

Emissions Classification	Emission Category	Pollutants (tons per day)				
		ROG	CO	NOx	PM10	PM2.5
Stationary	Fuel Combustion	0.25	1.79	3.67	0.38	0.37
	Waste Disposal	0.34	0.13	0.03	0.03	0.03
	Cleaning and Surface Coatings	2.30	-	-	0.03	0.03
	Petroleum Production and Marketing	0.85	0.00	0.00	0.00	0.00
	Industrial Processes	1.30	0.02	0.44	2.02	1.00
Total Stationary Sources		5.04	1.95	4.14	2.47	1.42
Area-wide	Solvent Evaporation	6.76	-	-	-	-
	Miscellaneous Processes	15.14	20.68	1.64	24.60	6.84
Total Area-wide Sources		21.90	20.68	1.64	24.60	6.84
Mobile	On-Road Motor Vehicles	9.62	81.11	28.38	1.23	0.96
	Other Mobile Sources	5.71	29.39	13.55	0.85	0.76
Total Mobile Sources		15.33	110.50	41.93	2.08	1.72
Natural (Non-Anthropogenic)	Biogenic Sources	11.99	-	-	-	-
	Wildfires	1.10	15.74	0.51	1.61	1.37
Total Natural (Non-Anthropogenic) Sources		13.09	15.74	0.51	1.61	1.37
Stanislaus County Total*		55.37	148.87	48.22	30.75	11.35

Source: California Air Resources Board, 2008b.

Notes: Total based on non-rounded emissions estimates.

Below are the results from Table 3.3-4 which have been broken down by pollutant. Emissions classifications and categories are listed followed by the percentage of pollutants that affect each category:

ROG: Area-wide sources contributed the majority of ROG emissions in Stanislaus County in 2008, generating approximately 39 percent of the total inventory. On-Road Motor Vehicle emissions constituted the majority of ROG source emissions. Within area-wide sources, the largest single contributor of ROG emissions was farming operations, with 24 percent of the County's total area-wide ROG inventory. The next largest contributor of ROG emissions came from mobile sources with approximately 28 percent of the total inventory. On-Road Mobile sources accounted for approximately 17 percent of the 2008 emissions inventory. Natural Sources accounted for approximately 24 percent of the total ROG inventory in Stanislaus County.

CO: Mobile sources generated the majority of CO emissions in the County at approximately 74 percent of the total CO inventory, with on-road motor vehicles contributing approximately 54 percent.

NOx: Mobile sources generated the majority of NOx emissions in the County at approximately 87 percent of the total NOx inventory, with on-road motor vehicles contributing approximately 59 percent. Heavy-duty diesel trucks are the predominant source of NOx from on-road vehicles, contributing approximately 36 percent of the County's total NOx inventory.

PM10: For PM10, area-wide sources contributed approximately 80 percent of the 2008 inventory. The main PM10-generating, area-wide sources include farming operations, fugitive windblown dust, and paved and unpaved road dust.

PM2.5: Area-wide sources contributed approximately 60 percent of the 2008 County inventory. The main PM2.5-generating area-wide source came from farming and residential fuel combustion, contributing 35 percent of the County's total PM2.5 emissions. Mobile sources contributed approximately 15 percent of the County's total PM2.5 inventory.

According to the results, CO accounts for the largest amount of pollutants in the county followed by ROG and then NOx.

LOCAL AIR QUALITY

Existing local air quality, historical trends, and projections of air quality are best evaluated by reviewing relevant air pollutant concentrations from near the project area. The ARB and the SJVAPCD each operate one air monitoring station in Stanislaus County. The Turlock S. Minaret Street monitoring site operated by the SJVAPCD, located 3.82 miles southeast of the project site is the closest monitoring station to the project site; it measures gaseous (ozone, CO, and NO₂), PM, and meteorological data. Because of increased regulations reducing SO_x from fuel, the SJVAB is in attainment for SO₂. Consequently this pollutant is only monitored at the Fresno First Street Monitoring station located 80 miles southeast of the project site. Table 3.3-5 summarizes 2009 through 2011 published monitoring data from the ARB's Aerometric Data Analysis and Management System for both stations.

As shown in Table 3.3-5, ambient air pollution concentrations in the project area regularly exceeded the State 1-hour ozone standard and the federal 8-hour standard in the last 3 years. In the same timeframe, the project area exceeded the State daily PM10 standard and the federal PM2.5 standards. However, the project area did not exceed the federal or State CO, NO₂, and SO₂ standards, nor did the project area exceed the federal PM10 standard.

**Table 3.3-5
Air Quality Monitoring Summary**

Pollutant	Averaging Time (Units)	2009	2010	2011
Ozone	Maximum 1 Hour (ppm)	0.125	0.123	0.111
	Days > State Standard (0.09 ppm)	8	8	4
	Maximum 8 Hour (ppm)	0.102	0.096	0.093
	Days > 2008 Federal Standard (0.075 ppm)	18	10	17
	Days > State Standard (0.07 ppm)	34	19	34
Nitrogen dioxide (NO ₂)	Annual Average (ppm)	0.012	0.010	0.011
	Max 1 Hour (ppm)	0.058	0.050	0.054
	Days > State 1 Hour Standard (0.18 ppm)	0	0	0
	Days > State Annual Average (0.030 ppm)	0	0	0
Sulfur dioxide (SO ₂)	Maximum 1 Hour (ppm)	0.000	0.000	0.000
	Maximum 24 Hour (ppm)	0.005	0.004	0.004
	Days > State 24 Hour Standard (0.04 ppm)	0	0	0
	Days > State 1 Hour Standard (0.25 ppm)	0	0	0
	Annual Average (ppm)	0.001	0.000	0.000
Carbon monoxide (CO)	Maximum 1 Hour (ppm) ¹	2.13	2.19	2.05
	Maximum 8 Hour (ppm)	1.49	1.53	1.44
	Days > State 1 Hour Standard (9 ppm)	0	0	0
	Days > State 8 Hour Standard (20 ppm)	0	0	0
	Days > Federal 1 Hour Standard (9 ppm)	0	0	0
	Days > Federal 8 Hour Standard (35 ppm)	0	0	0
Fine particulate matter (PM10)	State Annual Average (20 µg/m ³)	31.0	23.7	*
	Maximum 24 Hour (µg/m ³)	64.6	74.6	69.0
	Days > State Standard (50 µg/m ³)	72	23.7	*
	Days > Federal Standard (150 µg/m ³)	0	0	0
Ultra fine particulate matter (PM2.5)	Annual Average (µg/m ³)	16.0	12.7	17.1
	Annual Average State Standard (12 µg/m ³)	-	-	-
	Annual Average Federal Standard (15 µg/m ³)	-	-	-
	Maximum 24 Hour (µg/m ³)	65.7	56.6	77.9
	Est. Days > Federal Standard (35 µg/m ³)	35	*	36.3

Source: California Air Resources Board, 2012.

Note: > = exceed, ppm = parts per million, Exceedances are listed in bold.

Note: * There was insufficient (or no) data available to determine the value.

Note: 1) The ARB does not report 1-hour average CO concentrations in its database, only 8-hour CO concentrations. Therefore, the 1-hour CO concentration was derived by dividing the 8-hour concentration by 0.7. 2) Measurements of PM10 and PM2.5 are made every sixth day. Data is the estimated number of days that the standard would have been exceeded had measurements been collected every day.

LOCAL SOURCES OF AIR POLLUTANTS

Local sources of air pollution include mobile source emissions (traffic) from the adjacent roadways (North Washington Road and Fulkerth Road) and from State Route (SR) 99, located 1.4 miles east of the project site. Additional sources of air pollution include area sources from farming activities on the surrounding lands. Farming activities generate fugitive dust (PM10 and PM2.5) from tilling and windblown dust, and exhaust emissions (ROG, NOx, and CO) from agricultural equipment.

Sensitive Receptors

Certain populations, such as children, the elderly, and persons with preexisting respiratory or cardiovascular illness, are particularly sensitive to the health impacts of air pollution. For purposes of CEQA, the SJVAPCD considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools. Office workers may also be considered sensitive receptors, based on their proximity to sources of toxic air contaminants and that workers may be exposed over the duration of their employment (San Joaquin Valley Air Pollution Control District, 2012a). The nearest sensitive receptors to the project is the existing home located 250 feet east of the project site's northern boundary on the southeast corner of North Washington Road and Fulkerth Road. Additional sensitive receptors are the homes located 280 feet northeast of the project site's northern boundary on the northeast corner of North Washington Road and Fulkerth Road.

Pollutants of Concern

For reasons described previously, the criteria pollutants of greatest concern for the project area are ozone, PM10, and PM2.5. Although the Air Basin is in attainment of the federal and State carbon monoxide standards, carbon monoxide is a pollutant of concern, due to the potential for localized "hotspots" to occur. Other pollutants of concern are toxic air contaminants and asbestos (San Joaquin Valley Air Pollution Control District 2011). The following provides a summary of the pollutants of concern for the project area.

Ozone

Ozone is not emitted directly into the air but is formed by a photochemical reaction in the atmosphere. Ozone precursors, which include ROG and NOx (ozone precursors are discussed below), react in the atmosphere in the presence of sunlight to form ozone. Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, ozone is primarily a summer air pollution problem. Often, the effects of emitted ROG and NOx are felt a distance downwind of the emission sources. Ozone is subsequently considered a regional pollutant. Ground-level ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials.

Ozone can irritate lung airways and cause inflammation much like a sunburn. Other symptoms include wheezing, coughing, pain when taking a deep breath, and breathing difficulties during exercise or outdoor activities. People with respiratory problems are most vulnerable, but even healthy people who are active outdoors can be affected when ozone levels are high. Chronic ozone exposure can induce morphological (tissue) changes throughout the respiratory tract, particularly at the junction of the conducting airways and the gas exchange zone in the deep lung. Anyone who spends time outdoors in the summer is at risk, particularly children and other people who are more active outdoors. Even at very low levels, ground-level ozone triggers a variety of health problems, including aggravated asthma, reduced lung capacity, and increased susceptibility to respiratory illnesses like pneumonia and bronchitis.

Ozone also damages vegetation and ecosystems. It leads to reduced agricultural crop and commercial forest yields; reduced growth and survivability of tree seedlings; and increased susceptibility to diseases, pests, and other stresses such as harsh weather. In the United States alone, ozone is responsible for an estimated \$500 million in reduced crop production each year. Ozone also damages the foliage of trees and other plants, affecting the landscape of cities, national parks and forests, and recreation areas. In addition, ozone causes damage to buildings, rubber, and some plastics.

Ozone is a regional pollutant, as the reactions forming it take place over time, and it materializes downwind from the sources of the emissions. As a photochemical pollutant, ozone is formed only during daylight hours under appropriate conditions, but it is destroyed throughout the day and night. Thus, ozone concentrations vary, depending upon both the time of day and the location. Even in pristine areas, some ambient ozone forms from natural emissions that are not controllable. This is termed background ozone. The average background ozone concentrations near sea level are in the range of 0.015 to 0.035 parts per million (ppm), with a maximum of about 0.04 ppm.

Reactive Organic Gases

Reactive organic gases (ROG) are defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participate in atmospheric photochemical reactions. ROG consist of nonmethane hydrocarbons and oxygenated hydrocarbons. Hydrocarbons are organic compounds that contain only hydrogen and carbon atoms. It should be noted that there are no State or federal ambient air quality standards for ROG because they are not classified as criteria pollutants. They are regulated, however, because a reduction in ROG emissions reduces certain chemical reactions that contribute to the formulation of ozone. ROG are also transformed into organic aerosols in the atmosphere, which contribute to higher PM10 levels and lower visibility.

Because ROG is an ozone precursor, the health effects associated with ROG emissions are due its role in ozone formation and, as discussed above, not due to direct effects.

Nitrogen Oxides

During combustion of fossil fuels, oxygen reacts with nitrogen to produce nitrogen oxides or NO_x. This occurs primarily in motor vehicle internal combustion engines, and fossil fuel-fired electric utility facilities and industrial boilers. The pollutant NO_x is a concern because it is an ozone precursor, which means that it helps form ozone. When NO_x and ROG are released in the atmosphere, they can chemically react with one another in the presence of sunlight and heat to form ozone. NO_x can also be a precursor to PM₁₀ and PM_{2.5}.

One of the most important health effects associated with NO_x emissions is related to its role in ozone formation, as discussed above. Its role in the secondary formation of ammonium nitrate results in particulate health effects described in the next section. Nitrogen dioxide (NO₂) is the largest and most important component of NO_x. NO₂ acts mainly as an irritant affecting the mucosa of the eyes, nose, throat, and respiratory tract. Extremely high-dose exposure (as in a building fire) to NO₂ may result in pulmonary edema and diffuse lung injury. Continued exposure to high NO₂ levels can contribute to the development of acute or chronic bronchitis. Low level NO₂ exposure may cause increased bronchial reactivity in some asthmatics, decreased lung function in patients with chronic obstructive pulmonary disease and increased risk of respiratory infections, especially in young children.

Particulate Matter (PM₁₀ and PM_{2.5})

Particulate matter is the term for a mixture of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye. Others are so small that they can only be detected using an electron microscope. The size of particles is directly linked to their potential for causing health problems. Small particles less than 10 micrometers (µm) in diameter pose the greatest problems, because they can get deep into lungs and the bloodstream. The United States Environmental Protection Agency (EPA) health standards have been established for two categories of particulate matter:

1. PM₁₀ – “inhalable coarse particles” with diameters larger than 2.5 micrometers and smaller than 10 micrometers; and
2. PM_{2.5} – “fine particles,” with diameters that are 2.5 micrometers and smaller. For reference, PM_{2.5} is approximately one-thirtieth the size of the average human hair.

Although the PM₁₀ standard is intended to regulate “inhalable coarse particles” that range from 2.5 to 10 micrometers in diameter, PM₁₀ measurements contain both fine and coarse particles. These particles come in many sizes and shapes and can be made up of hundreds of different chemicals. Some particles, known as primary particles, are emitted directly from a source, such as construction sites, unpaved roads, fields, smokestacks, or fires. Others form in complicated reactions in the atmosphere from chemicals such as sulfur dioxides and nitrogen oxides that are emitted from power plants, industrial activity, and automobiles. These particles, known as secondary particles, make up most of the fine particle pollution in the United States.

Particle exposure can lead to a variety of health effects. For example, numerous studies link particle levels to increased hospital admissions and emergency room visits—and even to death from heart or lung diseases. Both long- and short-term particle exposures have been linked to health problems. Long-term exposures, such as those experienced by people living for many years in areas with high particle levels, have been associated with problems such as reduced lung function, the development of chronic bronchitis, and even premature death. Short-term exposures to particles (hours or days) can aggravate lung disease, causing asthma attacks and acute bronchitis, and may increase susceptibility to respiratory infections. In people with heart disease, short-term exposures have been linked to heart attacks and arrhythmias. Healthy children and adults have not been reported to suffer serious effects from short-term exposures, although they may experience temporary minor irritation when particle levels are elevated.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes about 56 percent of all CO emissions nationwide. Other non-road engines and vehicles (such as construction equipment and boats) contribute about 22 percent of all CO emissions nationwide. Higher levels of CO generally occur in areas with heavy traffic congestion. In cities, 85 to 95 percent of all CO emissions may come from motor vehicle exhaust. Other sources of CO emissions include industrial processes (such as metals processing and chemical manufacturing), residential wood burning, and natural sources such as forest fires. Woodstoves, gas stoves, cigarette smoke, and unvented gas and kerosene space heaters are sources of CO indoors.

Motor vehicles are the dominant source of CO emissions in most areas. CO is described as having only a local influence because it dissipates quickly. High CO levels develop primarily during winter, when periods of light winds combine with the formation of ground-level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Because CO is a product of incomplete combustion, motor vehicles exhibit increased CO emission rates at low air temperatures. High CO concentrations occur in areas of limited geographic size, sometimes referred to as hot spots. Since CO concentrations are strongly associated with motor vehicle emissions, high CO concentrations generally occur in the immediate vicinity of roadways with high traffic volumes and traffic congestion, active parking lots, and in automobile tunnels. Areas adjacent to heavily traveled and congested intersections are particularly susceptible to high CO concentrations.

CO is a public health concern because it combines readily with hemoglobin, reducing the amount of oxygen transported in the bloodstream. The health threat from relatively low levels of CO is most serious for those who suffer from such heart-related diseases as angina, clogged arteries, or congestive heart failure. For a person with heart disease, a single exposure to CO at low levels may cause chest pain and reduce that person's ability to exercise; repeated exposures may contribute to other cardiovascular effects. High levels of CO can affect even healthy people. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At extremely high levels, CO is poisonous and can cause death.

TOXIC AIR CONTAMINANTS

A toxic air contaminant is defined as an air pollutant which may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. Toxic air contaminants are usually present in minute quantities in the ambient air. However, their high toxicity or health risk may pose a threat to public health even at very low concentrations. In general, for those toxic air contaminants that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts are not expected to occur. This contrasts with the criteria pollutants for which acceptable levels of exposure can be determined and for which the State and federal governments have set ambient air quality standards.

Diesel Particulate Matter

The ARB identified the PM emissions from diesel-fueled engines as a toxic air contaminant in August 1998 under California's toxic air contaminant program. In California, diesel engine exhaust has been identified as a carcinogen. Most researchers believe that diesel exhaust particles contribute the majority of the risk.

Diesel particulate matter (DPM) is emitted from both mobile and stationary sources. In California, on-road diesel-fueled vehicles contribute approximately 40 percent of the statewide total, with an additional 57 percent attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and transport refrigeration units. Stationary sources, contributing about 3 percent of emissions, include shipyards, warehouses, heavy equipment repair yards, and oil and gas production operations. Emissions from these sources are from diesel-fueled internal combustion engines. Stationary sources that report diesel PM emissions also include heavy construction (except highway) manufacturers of asphalt, paving materials and blocks, and electrical generation.

Diesel particulate matter is a subset of PM_{2.5}—diesel particles are typically 2.5 microns and smaller. In a document published in 2002, the EPA noted that in 1998, diesel PM made up about 6 percent of the total PM_{2.5} inventory nationwide. The complex particles and gases that make up diesel exhaust have the physical properties of organic compounds that account for 80 percent of the total particulate matter mass consisting of hydrocarbons and their derivatives and polycyclic aromatic hydrocarbons and their derivatives. Fifteen polycyclic aromatic hydrocarbons are confirmed carcinogens, a number of which are found in diesel exhaust. The chemical composition and particle sizes of DPM vary among different engine types (heavy-duty, light-duty), engine operating conditions (idling, accelerating, decelerating), expected load, engine emission controls, fuel formulations (high/low sulfur fuel), and engine year.

Some short-term (acute) health effects of diesel exhaust exposure include eye, nose, throat, and lung irritation, and exposure can cause coughs, headaches, light-headedness, and nausea. Diesel exhaust is a major source of ambient PM pollution in urban environments. In a 2002 report from the Office of Environmental Health Hazard Assessment (OEHHA) titled "Health Effects of Diesel Exhaust Report," it was noted that numerous studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature

deaths among those suffering from respiratory problems. The National Toxicology Program asserted that more serious, long-term health effects of diesel exhaust have demonstrated an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure in its 2005 Report on Carcinogens, Eleventh Edition.

Asbestos

Asbestos is the name given to a number of naturally occurring fibrous silicate minerals that have been mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The three most common types of asbestos are chrysotile, amosite, and crocidolite. Chrysotile, also known as white asbestos, is the most common type of asbestos found in buildings. Chrysotile makes up approximately 90 to 95 percent of all asbestos contained in buildings in the United States.

Project construction sometimes requires the demolition of existing buildings where construction occurs. Buildings often include materials containing asbestos, this project involves the demolition of existing structures where asbestos has been identified. Asbestos is also found in a natural state, known as naturally occurring asbestos. Exposure and disturbance of rock and soil that naturally contain asbestos can result in the release of fibers to the air and consequent exposure to the public. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Sources of asbestos emissions include unpaved roads or driveways surfaced with ultramafic rock, construction activities in ultramafic rock deposits, or rock quarrying activities where ultramafic rock is present.

Exposure to asbestos is a health threat; exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest and abdominal cavity), and asbestosis (a non-cancerous lung disease which causes scarring of the lungs).

The Department of Conservation, Division of Mines and Geology published a guide entitled, “A General Location Guide For Ultramafic Rocks In California - Areas More Likely To Contain Naturally Occurring Asbestos,” dated August 2000, for generally identifying areas that are likely to contain naturally occurring asbestos. According to the California Division of Mines and Geology, rock formations that contain naturally occurring asbestos are known to be present in 44 of California’s 58 counties, including Stanislaus County.

A review of a map containing areas more likely to have rock formations containing naturally occurring asbestos in California indicates that the project site is not in an area that is likely to contain naturally occurring asbestos. The nearest locations of naturally occurring asbestos shown are approximately 33 miles east of the project site near Pine Flat Dam. As noted in the Division of Mines and Geology’s report, the map only shows the general location of naturally occurring asbestos-containing formations and may not show all potential occurrences.

METHODOLOGY

The methodology follows the GAMAQI, which sets forth recommended thresholds of significance, analysis methodologies, and provides guidance on mitigating significant impacts. Detailed methodology is described in each of the impact sections below.

The analysis was prepared using a variety of data sources and air quality models. The Traffic Impact Study for the project, prepared by KD Anderson & Associates was used to obtain Level of Service (LOS) and intersection volumes for the CO Hotspot Analysis and average daily trip generation to model operational motor vehicle emissions. The California Emissions Estimator Model (CalEEMod) was used to quantify project related construction and operational emissions. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects. The model quantifies direct emissions from construction and operations (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The model incorporates Pavley standards and Low Carbon Fuel standards into the mobile source emission factors. Further, the model identifies mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user.

3.3.3 IMPACT EVALUATION CRITERIA

Analysis Methodology

The methodology for the proposed project follows the GAMAQI, which sets forth recommended thresholds of significance, analysis methodologies, and provides guidance on mitigating significant impacts. In addition to the air district's guidance document, both Stanislaus County and City of Turlock's policies provides further direction in the analysis.

A variety of data sources and air quality models were also a part of this analysis. The Traffic Impact Study for the project, prepared by KD Anderson & Associates, was used to obtain Level of Service (LOS) and intersection volumes for the CO Hotspot Analysis and average daily trip generation to model operational motor vehicle emissions. The CalEEMod was used to quantify project related construction and operational emissions. The model is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. The model quantifies direct emissions from construction and operations (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The model incorporates Pavley standards and Low Carbon Fuel standards into the mobile source emission factors. Further, the model identifies mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user.

Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, air quality impacts resulting from the implementation of the proposed project would be considered significant if the project would:

- a) *Conflict with or obstruct implementation of the applicable air quality plan.*
- b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation.*
- c) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors).*
- d) *Expose sensitive receptors to substantial pollutant concentrations.*
- e) *Create objectionable odors affecting a substantial number of people.*

While the final determination of whether or not a project is significant is within the purview of the lead agency pursuant to CEQA Guidelines Section 15064(b), the SJVAPCD recommends that its quantitative and qualitative air pollution thresholds be used to determine the significance of project emissions. These thresholds are discussed under each impact section.

Other Project Thresholds

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT THRESHOLDS

While the final determination of whether a project is significant is within the purview of the Lead Agency pursuant to Section 15064(b) of the CEQA Guidelines, SJVAPCD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If the Lead Agency finds that the project has the potential to exceed these air pollution thresholds, the project should be considered to have significant air quality impacts.

REGIONAL SIGNIFICANCE THRESHOLDS

According to the GAMAQI, the SJVAPCD based the ozone precursor thresholds' "significant contribution" definition on the California Clean Air Act's offset requirements for NO_x and ROG. The ROG and NO_x offset thresholds are described in SJVAPCD Rule 2201 (New and Modified Stationary Source Review). Since the GAMAQI was published, the SJVAPCD has been recommending use of a PM₁₀ threshold of 15 tons per year, which is the offset thresholds for PM₁₀ in Rule 2201. Because the SJVAB is in nonattainment for PM_{2.5} and because PM_{2.5} is a subset of PM₁₀, the threshold for PM_{2.5} for this project will also be 15 tons per year.

The following regional significance thresholds have been established by the SJVAPCD to protect air resources within the basin as a whole, as project emissions can potentially contribute to the

existing emission burden and possibly affect the attainment and maintenance of ambient air quality standards. Projects within the SJVAB with regional construction or operational emissions in excess of any of the thresholds presented in Table 3.3-6 are considered to have a significant regional air quality impact.

**Table 3.3-6
SJVAPCD Regional Thresholds**

Pollutant	Tons Per Year
Nitrogen oxides (NO _x)	10
Reactive Organic Gases (ROG)	10
Particulate matter (PM10)	15
Particulate matter (PM2.5)	15

Source: San Joaquin Valley Air Pollution Control District, 2002.

Carbon Monoxide Hot Spot Analysis Threshold

A CO hotspot analysis is the appropriate tool to determine if project emissions of CO during operation would exceed ambient air quality standards. The main source of air pollutant emissions during operation are from offsite motor vehicles traveling on the roads surrounding the project site.

Project emissions may be considered significant if a CO hotspot intersection analysis determines that project-generated emissions cause a localized violation of the State CO 1-hour standard of 20 ppm, State CO 8-hour standard of 9 ppm, federal CO 1-hour standard of 35 ppm, or federal CO 8-hour standard of 9 ppm.

Because increased CO concentrations are usually associated with roadways that are congested and with heavy traffic volume, the SJVAPCD has established that preliminary screening can be used to determine with fair certainty that the effect a project has on any given intersection would not cause a potential CO hotspot. Therefore, the SJVAPCD has established that if all project-affected intersections are negative for both of the following criteria, then the project can be said to have no potential to create a violation of the CO standard:

- A traffic study for the project indicates that the Level of Service (LOS) on one or more streets or at one or more intersections in the project vicinity will be reduced to LOS E or F; or
- A traffic study indicates that the project will substantially worsen an already existing LOS F on one or more streets or at one or more intersections in the project vicinity.

If either of the criteria can be associated with any intersection affected by the project, a CO Protocol Analysis must be prepared to determine significance.

Nuisance Threshold

Any project with the potential to frequently expose members of the public to objectionable odors will be deemed to have a significant impact. The SJVAPCD has a regulation that governs the

discharge from any source of such quantities of air contaminants, which cause a nuisance or annoyance to any considerable number of persons or to the public. Creating the potential for a violation of the SJVAPCD's Nuisance Rule (Rule 4102) would create a potentially significant effect.

While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the SJVAPCD. Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc., warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.

Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor. The SJVAPCD has determined the common land use types that are known to produce odors in the SJVAB. Included in the types of land uses that are known to create odors are wastewater treatment facilities, chemical manufacturing plants, painting/coating operations, feed lots/dairies, composting facilities, landfills, and transfer stations.

This project would be located near existing sensitive receptors. The project's land use types are not listed in Table 4-2 of the GAMAQI as a known source of odor. The analysis qualitatively assesses if the project could be a generator of significant odor emissions.

Health Risk Threshold

The SJVAPCD has adopted the following significance thresholds for toxic air contaminants:

- Probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds 10 in one million; or
- Ground-level concentrations of non-carcinogenic toxic air contaminants would result in a Hazard Index greater than 1 for the MEI.

Seven hundred substances have been identified by the U.S. EPA as toxic. Key pollutants include diesel particulate matter, formaldehyde, benzene, acetaldehyde, 1, 3-butadiene, methylene chloride, perchloroethylene, para-dichlorobenzene, chromium (hexavalent), and carbon tetrachloride.

Conformance with Air Quality Attainment Plans (AQAPs) Threshold

The CEQA Guidelines indicate that a significant impact would occur if the proposed project conflicts with or obstruct implementation of the applicable air quality plan. The GAMAQI does not provide specific guidance on analyzing conformity with the AQAPs. Therefore, this document proposes the following criteria for determining project consistency with the current AQAPs:

Because of the region's non-attainment status for ozone, PM2.5, and PM10, if the project-generated emissions of either of the ozone precursor pollutants (ROG or NOx), PM10, or PM2.5 were to exceed the SJVAPCD's significance thresholds, then the project uses would be considered to conflict with the attainment plans. Additionally, the project must comply with the control measures in the attainment plans.

As mentioned previously, the SJVAPCD has several plans to reduce those pollutants in which the district is in non-attainment of.

Cumulative Impacts Threshold

Section 15130(b) of the CEQA Guidelines states the following:

The following elements are necessary to an adequate discussion of significant cumulative impacts use either: (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

In accordance with CEQA Guidelines 15130(b), this analysis of cumulative impacts incorporates a summary of projections; the following approach (consistent with approach B) will be used:

1. Consistency with existing AQP; and
2. Assessment of cumulative health effect of project air pollutants.

Consistency with Air Quality Plans

The AQAPs are plans for reaching attainment of the air quality standards. The assumptions, inputs, and control measures are analyzed to determine if the SJVAB can reach attainment for the ambient air quality standards. In order to show attainment of the standards, the SJVAPCD analyzes the growth projections in the valley, contributing factors in air pollutant emissions and formation, and existing and future emissions controls. The SJVAPCD then formulates a control strategy to reach attainment. Therefore, if a project is consistent with the AQAP, the project's cumulative contribution to air emissions is less than significant.

Cumulative Health Effects

For some pollutants, such as ozone, the background concentrations in the air are already high. Therefore, small emissions of pollutants from various sources around the SJVAB combined can cause cumulative impacts. Cumulative health effects can be inferred from the analyses for the following criteria:

- Violates any Air Quality Standard or Contribute Substantially to an Existing or Projected Air Quality Violation, and

- Results in a Cumulatively Considerable Net Increase of any Criteria Pollutant for which the SJVAB is Non-Attainment.

Although the SJVAB is in attainment for the CO standards, the vehicle traffic from the project may be great enough to cause a CO hotspot, or substantially contribute to a project CO Hotspot. The SJVAB is nonattainment for ozone, PM10 and PM2.5, and the project may substantially contribute to the existing violation through ROG, NOx, PM10, and PM2.5 emissions. The following analyses will be used for this criterion:

- CO Hotspot as discussed in - CO Hotspot; and
- Regional Operational Thresholds as discussed in Regional Air Pollutants.

3.3.4 IMPACTS AND MITIGATION MEASURES

Impact #3.3-1 – Conflict with or obstruct implementation of any applicable air quality plan.

Because of the region’s non-attainment status for ozone, PM2.5, and PM10 if the proposed project generated ozone precursor pollutants (i.e., ROG and NOx), PM10, or PM2.5 that exceeds the SJVAPCD’s significance thresholds, then the project would conflict with the attainment plans. In addition, if the project would result in a change in land use, which triggers an increase in vehicle miles traveled, these changes may be unaccounted for in regional emissions inventories contained in regional air quality control plans.

As discussed in Impact 3.3-2, predicted construction and operational emissions of NOx would exceed the SJVAPCD significance thresholds. As a result, the proposed project may conflict with emissions inventories contained in regional AQAPs and result in a significant contribution to the region’s air quality non-attainment status.

Conclusion: The proposed project may conflict or obstruct implementation of the applicable AQAP. Impacts would be potentially significant. There are no feasible mitigation measures that can be applied to the project to reduce the impact to a less-than-significant level; accordingly, this impact would be *significant and unavoidable*.

Mitigation Measures: No feasible and effective mitigation measures are available.

Impact #3.3-2 – Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Construction Assumptions and Modeling Parameters

Construction of the project would result in the generation of air pollutant emissions. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and prevailing weather conditions. Construction emissions result from onsite and offsite activities. Onsite emissions principally consist of exhaust emissions (NOx, SOx, CO, ROG, PM10, and PM2.5) from heavy-duty construction

equipment, motor vehicle operation, and fugitive dust (mainly PM10) from disturbed soil. Additionally, paving operations and application of architectural coatings would release ROG emissions. Offsite emissions are caused by motor vehicle exhaust from delivery vehicles, worker traffic, and road dust (PM10 and PM2.5). Construction phasing assumptions are shown in Table 3.3-7.

**Table 3.3-7
Construction Phasing Assumptions**

Year	Phase Duration	Construction Phase Assumptions
2013	10 days	Site Preparation of 61.7 acres (grubbing and land clearing) Equipment: <ul style="list-style-type: none"> ▪ Rubber Tired Dozers (6) ▪ Tractors/Loaders/Backhoes (8)
2013	30 days	Site Grading of 61.7 acres Equipment: <ul style="list-style-type: none"> ▪ Excavators (4) ▪ Graders (2) ▪ Rubber Tired Dozers (2) ▪ Scrapers (4) ▪ Tractors/Loaders/Backhoes (4)
2013/2014	190 days	Construct 180,000 square feet of warehouse facilities Equipment: <ul style="list-style-type: none"> ▪ Cranes (2) ▪ Forklifts (6) ▪ Generator Sets (2) ▪ Tractors/Loaders/Backhoes (6) ▪ Welders (2)
2014	25 days	Asphalt Paving Equipment: <ul style="list-style-type: none"> ▪ Pavers (4) ▪ Paving Equipment (4) ▪ Rollers (4) ▪ Tractors/Loaders/Backhoes (2)
2014	25 days	Paint Buildings Equipment: <ul style="list-style-type: none"> ▪ Air Compressors (2)

Source: Quad Knopf, 2013.

Note: Some defaults from the California Emissions Estimator Model, 2011 were applied.

Notes: Equipment quantities were doubled to reflect the project acreage.

The proposed project would be constructed in three phases of approximately three to four months each over the course of approximately six years; however, to provide a “worst-case” scenario, the project’s construction was conservatively estimated to be built out simultaneously within a year following entitlement approvals. It was assumed that the project’s construction would start in June 2013 and be completed by July 2014, and the entire 61.7 acres would be graded at once.

Operational Assumptions

Operational, or long-term, emissions occur over the life of the project and would begin once the warehouse is in operation. Operational emissions include mobile and area source emissions. Area source emissions are from consumer products, heaters that consume natural gas, gasoline-powered landscape equipment, and architectural coatings (painting). Mobile emissions from motor vehicles are the largest single long-term source of air pollutants from the project.

As discussed in the project description the proposed project would generate 817 total daily trips. Based on the applicant's information, approximately 124 of those trips would be Heavy-Duty Diesel Truck (HDDT) trips and the remaining 693 trips would be a mixture of passenger vehicles and other vehicle categories. The fleet mix percentages for the remaining 693 trips are shown in Table 3.3-8.

**Table 3.3-8
Fleet Mix for Employees**

CalEEMod Default Vehicle Type	CalEEMod Default Fleet Percentage	NEW Fleet Percentage
Light Auto	41.6%	45.4%
Light Truck < 3750 lbs.	11.8%	12.8%
Light truck 3751-5750 lbs	19.9%	21.7%
Med Truck 5751-8500 lbs	11.6%	12.7%
Lite-heavy truck 8501-10,000 lbs	2.8%	2.8%
Lite-heavy truck 10,001-14,000lbs	0.9%	0.9%
Med-heavy truck 14,001-33,000 lbs	1.9%	1.9%
Heavy-heavy truck 33,001-60,000 lbs	7.6%	0.0%
Other Bus	0.1%	0.1%
Urban Bus	0.1%	0.1%
Motorcycle	1.0%	1.0%
School Bus	0.1%	0.1%
Motor Home	0.4%	0.4%
Total	100.0%	100.0%

Source: Quad Knopf, 2013.

Note: Some defaults from the California Emissions Estimator Model, 2011 were applied.

Notes: Heavy-duty diesel truck trip percentage was reduced to 0 and calculated separately for field trucks and shipping trucks. Because the majority of the trips would be passenger type vehicles, the HDDT trips percentage was allocated to the first four categories of the CalEEMod default fleet mix.

Heavy Duty Diesel Truck (HDDT) trips were calculated separately for field trucks and shipping trucks. Those truck trips would have different trip lengths than the default values in CalEEMod. As discussed in the Air Quality and Greenhouse Gas Report (Appendix B) that was prepared for this EIR, field trucks would travel to six different locations between 2 to 28 miles in distance from the warehouse facility. A weighted trip length was derived for the field truck trip lengths based on the percentage acreage of the fields with the assumption that the more acreage, the more produce that would need to be hauled. As shown in Table 3.3-9, a 16.5-mile weighted trip length was calculated.

**Table 3.3-9
Field Truck Trip Length**

Field Location	Acreage	Percentage of Total Acreage	One-Way Trip Length (miles)	Weighted Trip Length
A Weir Rd/Atwater-Jordan Rd	600 (550 watermelon, 50 sweet potato)	59	18	10.62
B S. Buhach Rd/W. Dickenson Ferry Rd	190 (watermelon)	19	28	5.32
C W. Simmons Rd/S. Washington Rd.	135 (sweet potato)	13	2	0.26
D W. Tuolumne Rd/N. Washington Rd	40 (sweet potato)	4	0.5	0.02
E W. Taylor Rd/N. Washington Rd	20 (sweet potato)	2	2	0.04
F E. Grayson Rd/Tully Rd	30 (sweet potato)	3	8	0.24
Total	1,015	100	-	16.5

Source: KD Anderson & Associates, Memorandum, 2010; Quad Knopf, 2013.

The product will be crated at the warehouse with about 50 percent shipped to southern California and 50 percent shipped to northern California, Oregon, and Washington. Pursuant to CEQA, the threshold for determining significance is based on regional thresholds established by the SJVAPCD for the SJVAB. These thresholds were developed to help the SJVAB reach attainment for criteria pollutants (see Section 2.2.4 for additional attainment plan information). Because the geographic basis for the analysis is the SJVAB, the trip length to the southern boundary of the basin and the northern boundary were used to develop a weighted trip length for shipping truck trips.

**Table 3.3-10
Shipping Truck Trip Length**

Air Basin Boundary	Distance	Percentage of Trips	Weighted Trip Length
Southern Boundary	222 miles	50	111
Northern Boundary	60 miles	50	30
Total	-	100	141

Source: Quad Knopf, 2013.

According to the data listed in Table 3.3-10, trips generated to the southern boundary of the state will account for the majority of miles traveled.

Emissions

The estimated annual construction emissions output of the project is provided in Table 3.3-11². The estimated annual operational emissions output of the project is provided in Table 3.3-12. The project would have some overlapping construction and operational emissions in 2014, those emissions are shown in Table 3.3-13. The first full year of operation would occur in 2015; those emissions are shown in Table 3.3-14.

**Table 3.3-11
Construction Emissions (Tons/Year)**

Year	ROG	NO _x	CO	SO ₂	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2013	1.11	7.92	5.32	0.01	0.30	0.44	0.74	0.10	0.44	0.54
2014	1.81	3.57	2.79	0.01	0.07	0.24	0.31	0.00	0.24	0.24
SJVAPCD Threshold	10	10	N/A	N/A	*	*	15	*	*	15
Any Year Exceed Threshold?	No	No	N/A	N/A	*	*	No	*	*	No
Significant?	No	No	No	No	*	*	No	*	*	No

Source: Quad Knopf, 2013.

Note: Some defaults from the California Emissions Estimator Model, 2011 were applied. Note: * Significance is determined by the total PM10 and total PM2.5.

**Table 3.3-12
2014 Operational Emissions (Tons/Year)**

Source	ROG	NO _x	CO	SO ₂	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Employee Vehicles	0.43	0.59	3.87	0.01	0.59	0.03	0.62	0.03	0.03	0.05
Field Trucks	0.18	2.23	0.95	0.00	0.10	0.07	0.18	0.01	0.07	0.08
Shipping Trucks	0.89	11.59	4.18	0.02	0.63	0.42	1.05	0.07	0.42	0.49
Total	1.91	14.41	9.00	0.02	1.32	0.52	1.84	0.10	0.52	0.62
SJVAPCD Threshold	10	10	N/A	N/A	*	*	15	*	*	15
Exceed Threshold?	No	Yes	N/A	N/A	*	*	No	*	*	No
Significant?	No	Yes	No	No	*	*	No	*	*	No

Source: Quad Knopf, 2013.

Notes: * Significance is determined by the total PM10 and total PM2.5 Emission totals were divided by two to represent a half year of operations.

² The construction and operational emissions were derived using the CalEEMod.

**Table 3.3-13
2014 Construction and Operational Emissions (Tons/Year)**

Source	ROG	NO _x	CO	SO ₂	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2014 Construction	1.81	3.57	2.79	0.01	0.07	0.24	0.31	0.00	0.24	0.24
2014 Operational	1.91	14.41	9.00	0.02	1.42	0.52	1.84	0.10	0.52	0.62
Total	3.72	17.98	11.79	0.03	1.49	0.76	2.15	0.10	0.76	0.86
SJVAPCD Threshold	10	10	N/A	N/A	*	*	15	*	*	15
Exceed Threshold?	No	Yes	No	No	*	*	No	*	*	No
Significant?	No	Yes	No	No	*	*	No	*	*	No

Source: Quad Knopf, 2013.

Note: Some defaults from the California Emissions Estimator Model, 2011 were applied.

Note: * Significance is determined by the total PM10 and total PM2.5 Operational emission totals were divided by two to represent a half year of operations.

**Table 3.3-14
2015 Operational Emissions (Tons/Year)**

Source	ROG	NO _x	CO	SO ₂	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Employee Vehicles	0.85	1.18	7.73	0.01	1.18	0.05	1.23	0.05	0.05	0.10
Field Trucks	0.36	4.46	1.90	0.00	0.20	0.14	0.35	0.02	0.14	0.16
Shipping Trucks	1.77	23.17	8.36	0.03	1.26	0.84	2.10	0.13	0.84	0.97
Total	3.81	28.81	17.99	0.04	2.64	1.03	3.68	0.20	1.03	1.23
SJVAPCD Threshold	10	10	N/A	N/A	*	*	15	*	*	15
Exceed Threshold?	No	Yes	N/A	N/A	*	*	No	*	*	No
Significant?	No	Yes	No	No	*	*	No	*	*	No

Source: Quad Knopf, 2013.

Note: Some defaults from the California Emissions Estimator Model, 2011 were applied.

Note: * Significance is determined by the total PM10 and total PM2.5.

As shown in the tables above, while construction emissions alone would not exceed any SJVAPCD threshold, the combined construction and operational NO_x emissions would exceed the ozone precursor threshold, which means the project may contribute to a violation of the ozone standards; this is a potentially significant impact.

The SJVAB is in attainment for the nitrogen dioxide ambient air quality standards. The national ambient air quality standard for 1 hour nitrogen dioxide is 0.100 ppm. As shown in Table 3.5-5, the highest 1 hour concentration of nitrogen dioxide is 0.058 ppm, which is below 0.100 ppm. The project emissions exceed the ozone precursor threshold of 10 tons per year. The ozone threshold was not set to determine exceedances of the nitrogen dioxide standard. Even though project emissions of NO_x are relatively high, the emissions will be distributed throughout the state and will be dispersed. Rule 9510 will also reduce NO_x emissions in the SJVAB. However, to be conservative and because there is no certain way to determine this impact on a regional

basis, this impact is potentially significant and the project could contribute to an exceedance of the nitrogen dioxide standard.

The shipping trucks, which the applicant does not have any control over, generate the majority of the NOx emissions. Accordingly there is no feasible mitigation that can be applied by the project applicant that would reduce this impact to a less-than-significant level.

The project would produce minimal emissions of SOx, primarily due to increased regulations for reducing SOx from fuel. As shown in Tables 3.3-11 through 3.3-14, SOx emissions range from 0.01 to 0.04 ton per year. As shown in Table 3.3-5, the highest background 24-hour concentration of sulfur dioxide is 0.005 ppm, substantially under the State ambient air quality standard of 0.04 ppm. The project emissions would not cause or contribute to an air quality standard violation for sulfur dioxide. This impact is *less than significant*.

Other pollutants such as visibility reducing particles, lead, hydrogen sulfide, and vinyl chloride emissions would either not be emitted or would be at low levels. The project would emit CO during construction and operation. Operational emissions of CO are discussed in Impact 3.3-1. Construction emissions of CO are minimal and thus would not contribute to a violation of the CO ambient air quality standards. This impact is *less than significant*.

Modeling results listed for PM10 in Table 3.3-11 do not exceed the SJVAPCD's thresholds of significance. However, because the proposed project includes a warehouse it is required to comply with the SJVAPCD's Regulation VIII. This includes submitting a dust control plan, implementing reduction measures to limit fugitive dust, maintaining trackout/carryout controls, and other requirements as determined by the SJVAPCD during construction. During operation of the proposed project, reduction measures for fugitive dust emissions must continue to be implemented, stabilized surfaces must be maintained (i.e., chemical suppressant, gravel, or paving), and other requirements may apply as determined by the SJVAPCD. "The purpose of Regulation VIII is to reduce the amount of PM-10 entrained into the atmosphere as a result of emissions generated from anthropogenic (man-made) fugitive dust sources. Compliance with Regulation VIII does not constitute mitigation because it is already required by law".

Conclusion: The project would exceed the SJVAPCD's regional thresholds during construction and operation for NOx; therefore, this would be considered a potentially significant impact. The project may contribute to a violation of ozone standards and nitrogen dioxide standards; this would be considered a potentially significant impact. There are no feasible mitigation measures that can be applied to the project to reduce the impact to a less-than-significant level; accordingly, this impact would be *significant and unavoidable*.

Mitigation Measures: No feasible and effective mitigation measures are available.

Impact #3.3-3a – Violate any air quality standard or contribute substantially to an existing or projected air quality violation associated with carbon monoxide hotspots.

Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. The SJVAPCD provides screening criteria to determine when to quantify local CO concentrations based on impacts to the LOS of roadways in the project vicinity.

The Traffic Impact Study prepared by KD Anderson & Associates, Inc. did not identify any streets or intersections where the LOS would be reduced to LOS E or F, nor are there any existing LOS F streets or intersections in the project vicinity that would be worsened by the project. Therefore, the proposed project would not significantly contribute to an exceedance that will exceed State or federal CO standards.

Conclusion: The proposed project would not cause a CO violation; this impact would be *less than significant*.

Mitigation Measures: None are required.

Impact #3.3-3b – Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable national or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).

Ozone

As discussed in Impact 3.3-2, the project emissions emitted within the SJVAB would exceed the significance thresholds NO_x. Therefore, project emissions could cumulatively combine with other sources in the SJVAB and could cause a future violation of the ozone standards. This is a *potentially significant* impact. As such, there could be health effects from ozone from cumulative exposure of the pollutants. Health impacts may or may not include the following: (a) pulmonary function decrements and localized lung edema in humans and animals, (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals, (c) increased mortality risk, (d) and/or risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans.

Particulate Matter

As discussed in Impact 3.3-2, emissions during operation would not exceed the PM₁₀ or PM_{2.5} significance threshold. In addition, the project will have to comply with Regulation VIII which will require a dust plan, reduction measures, and other requirements for reducing PM₁₀ as determined by the SJVAPCD. This would be a *less-than-significant* impact. As such, there would not be cumulative exposure from the PM₁₀ and PM_{2.5} pollutants.

Air Quality Plan

Section 15130(b) of the CEQA Guidelines states the following:

The following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either: (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

In accordance with CEQA Guidelines 15130(b), this analysis of cumulative impacts is based on a summary of projections analysis. This analysis considers the current CEQA Guidelines, which includes the recent amendments approved by the Natural Resources Agency and effective on March 18, 2010. Under the amended CEQA Guidelines, cumulative impacts may be analyzed using other plans that evaluate relevant cumulative effects. The AQAP describe and evaluate the future projected emissions sources in the SJVAB and sets forth a strategy to meet both State and federal Clean Air Act planning requirements and federal ambient air quality standards. Therefore, the plans are relevant plans for a CEQA cumulative impacts analysis. As discussed in Impact 3.3-3, the proposed project is not consistent with the AQAP. Therefore, this is a ***potentially significant*** impact.

Conclusion: There are no feasible mitigation measures that can be applied to the project to reduce the impact to a less-than-significant level; accordingly, this impact would be ***significant and unavoidable***.

Mitigation Measures: No feasible and effective mitigation measures are available.

Impact #3.3-4 – Expose sensitive receptors to substantial pollutant concentrations.

Construction: Toxic Air Contaminants

Health-related risks associated with diesel exhaust emissions are primarily associated with long-term exposure and associated risk of contracting cancer. The estimation of cancer risk associated with exposure to toxic air contaminants is typically calculated based on a 70-year period of exposure. The use of diesel-powered construction equipment for the project, however, would be temporary (approximately one year in duration) and episodic and would occur over a relatively large area. For this reason, diesel-exhaust generated by construction, in and of itself, would not be expected to create conditions where the probability of contracting cancer over a 70-year lifetime of exposure is greater than 10 in 1 million for nearby receptors.

Operation: Toxic Air Contaminants

The ARB Air Quality and Land Use Handbook contains recommendations that will “help keep California’s children and other vulnerable populations out of harm’s way with respect to nearby sources of air pollution” (California Air Resources Board, 2005), including recommendations for

distances between sensitive receptors and certain land uses. These recommendations are assessed as follows:

Heavily traveled roads: The ARB recommends avoiding new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. Epidemiological studies indicate that the distance from the roadway and truck traffic densities were key factors in the correlation of health effects, particularly in children. Roads assessed in the traffic study do not exceed a volume of 100,000 vehicles per day.

Distribution centers: the ARB also recommends avoiding siting new sensitive land uses within 1,000 feet of a distribution center. There are no distribution centers within the vicinity of the project site.

Fueling stations: the ARB recommends avoiding new sensitive land uses within 300 feet of a large fueling station (a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities. The proposed project does not include a fueling station.

Dry cleaning operations: the ARB recommends avoiding siting new sensitive land uses within 300 feet of any dry cleaning operation that uses perchloroethylene. For operations with two or more machines, ARB recommends a buffer of 500 feet. For operations with three or more machines, ARB recommends consultation with the local air district. The proposed project does not include dry cleaning operations.

The project would include warehouse uses (approximately 180,000 square feet) that would have field trucks and shipping trucks that generate diesel particulate matter (DPM), a toxic air contaminant. As discussed in the Air Quality and Greenhouse Gas Report (Appendix B) that was prepared for this EIR, the applicant provided information on the number of field trucks and shipping trucks that would access the facilities. There would be a total of 52 shipping truck trips per day and 72 field truck trips per day. The SJVAPCD has a screening tool to determine if project impacts exceed the SJVAPCD threshold of 10 in one million probability of contracting cancer for the MEI. The screening tool requires information on the anticipated number of HDDT servicing the project site. The following assumptions were included in the modeling:

- 72 Field Truck trips per day, 6 days per week, 52 weeks per year;
- 52 Shipping Truck Trips per day, 6 days per week, 52 weeks per year; and
- Idling time of 15 minutes.

Table 3.3-15 provides an estimate of the cancer risks to the MEI, who are the residential receptors located east of the northern boundary of the project site. As shown in the table, the proposed project would not exceed the SJVAPCD threshold of 10 in one million; therefore, the project would not expose sensitive receptors to substantial concentrations of DPM. Impacts would be *less than significant*.

**Table 3.3-15
2015 Cancer Risks**

Project Year	Locations	Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)
2014	Maximum Exposed Residential Receptor	5.9	10

Source: Quad Knopf, 2013.

Note: See output file in Appendix B. Project impacts were analyzed using 2014 emission factors to provide a worst-case scenario of potential impacts.

Conclusion: Impacts would be *less than significant*.

Mitigation Measures: No mitigation is necessary.

Impact #3.3-5 – Create objectionable odors affecting a substantial number of people.

If the proposed project were to result in a sensitive odor receptor being located in the vicinity of an undesirable odor generator, the impact would be considered significant. The SJVAPCD regulates odor sources through its nuisance rule, Rule 4102, but has no quantitative standards for odors. The SJVAPCD presents a list of project screening trigger levels for potential odor sources in its GAMAQI, which is displayed in Table 3.3-16. If the project were to result in sensitive receptors being located closer to an odor generator in the list in Table 3.3-16 than the recommended distances, a more detailed analysis including a review of SJVAPCD odor complaint records is recommended.

**Table 3.3-16
Screening Levels for Potential Odor Sources**

Odor Generator	Distance (Miles)
Wastewater Treatment Facilities	2
Sanitary Landfill	1
Transfer Station	1
Composting Facility	1
Petroleum Refinery	2
Asphalt Batch Plant	1
Chemical Manufacturing	1
Fiberglass Manufacturing	1
Painting/Coating Operations (e.g., auto body shop)	1
Food Processing Facility	1
Feed Lot/Dairy	1
Rendering Plant	1

Source: San Joaquin Valley Air Pollution Control District, 2002.

Odors from the Project

The proposed project would allow for the development of warehouse uses within the approximate 61.7 acre project area. This land use is not considered a source of objectionable odors. This impact would be *less than significant*.

During construction, the various diesel-powered vehicles and equipment in use onsite would create localized odors. These odors would be temporary and would not likely be noticeable for extended periods of time beyond the project's site boundaries. The potential for diesel odor impacts would be *less than significant*.

Odors from Surrounding Land Uses

The project site is not located within the Project Screening Levels distances from the common odor producing facilities presented in Table 3.3-16. This impact would be *less than significant*.

Conclusion: The impact would be *less than significant*.

Mitigation Measures: No mitigation measures are required.

3.4 Biological Resources

This section provides an evaluation of the potential impacts to biological resources that would be caused by implementation of the proposed project. The discussion starts with an overview of regulation that is normally applicable to biological resources, followed by a description of the physical setting of both the site and surrounding lands. An analysis is then provided to determine whether the impact(s) would be less than significant, significant without mitigation, or significant and unavoidable. If an impact is significant and can be reduced with mitigation, then a description of the mitigation measure(s) is provided.

3.4.1 REGULATORY SETTING

Federal

FEDERAL ENDANGERED SPECIES ACT

The Federal Endangered Species Act (FESA) defines an *endangered species* as “any species or subspecies that is in danger of extinction throughout all or a significant portion of its range.” A *threatened species* is defined as “any species or subspecies that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.”

Once a species is listed, it is fully protected from take unless a take permit is issued by the United States Fish and Wildlife Service (USFWS). *Take* is defined as “the killing, capturing, trapping, or harassing of a species.” Proposed endangered or threatened species are those species for which a proposed regulation but not a final rule has been published in the Federal Register.

MIGRATORY BIRD TREATY ACT

The MBTA is an international treaty among the United States, Canada, Mexico, Japan, and Russia for the conservation and management of bird species that may migrate through more than one country. The MBTA (50 CFR Section 10) is enforced in the United States by the USFWS and covers 972 bird species. According to the provisions of the MBTA, it is unlawful to pursue, hunt, take, capture, or kill or attempt to do the same to any species covered by the MBTA, including their nests, eggs, or young. Any disturbance that causes nest abandonment or loss of reproductive effort is considered a take and is potentially punishable by fines or imprisonment. Birds covered under this act include all waterfowl, shorebirds, gulls, wading birds, raptors, owls, hummingbirds, warblers, flycatchers, and most perching bird species.

CLEAN WATER ACT – SECTION 404

The goal of Section 404 of the Clean Water Act (1972) is to maintain, restore, and enhance the physical, chemical, and biological integrity of the nation’s waters. Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (USACE) regulates discharges of dredged and fill materials into “waters of the United States” (jurisdictional waters). Waters of the U.S. include a wide variety of waterbodies including waters used for interstate commerce and

tributaries to these waters, intrastate lakes, rivers, streams, sandflats, mudflats, playa lakes, sloughs, wet meadows, wetlands, natural ponds, and wetlands adjacent to any water of the U.S. (33 CFR Part 328, Section 328.3). Impacts to jurisdictional waters, including wetlands (a special category of water of the US), require a permit from USACE and typically require mitigation. Impacts to wetlands often require compensation in kind to ensure no net loss of wetland function and value.

CLEAN WATER ACT – SECTION 401

Section 401 of the Clean Water Act requires an applicant who is seeking a 404 permit to first obtain a water quality certification from the Regional Water Quality Control Board (RWQCB). To obtain the water quality certification, the RWQCB must indicate that the proposed discharge would be consistent with the standards set forth by the state.

State

CALIFORNIA ENDANGERED SPECIES ACT

Section 2080 of the California Endangered Species Act (CESA) prohibits the take of any state-listed threatened and endangered species. CESA defines *take* as “any action or attempt to hunt, pursue, catch, capture, or kill any listed species.” If the proposed project results in a take of a listed species, a permit pursuant to Section 2080 of CESA is required from the California Department of Fish and Wildlife.

CALIFORNIA NATIVE PLANT PROTECTION ACT

The California Native Plant Protection Act (CNPPA) protects endangered and rare species, subspecies, and varieties of wild plants native to California. A “native plant” is defined as a plant growing in a wild, uncultivated state which is normally found native to the vegetation of California. The CNPPA gave the California Fish and Wildlife Commission the power to designate native plants as endangered or rare, and to require permits for collecting, transporting, or selling such plants.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

It is the policy of the California Environmental Quality Act (CEQA) to regulate projects to prevent environmental damage. The mechanism to ensure protection is the preparation and review of an Environmental Impact Report (EIR), which is used to disclose environmental information relevant to the project. Various responsible and trustee agencies provide review, comments, and input into the decision making process.

Under the CEQA guidelines, Appendix G, significant impacts to sensitive natural communities and special-status plant and wildlife species, including California Native Plant Society (CNPS) List 1 and 2 species and species of special concern must be fully considered. Avoidance measures or mitigation to reduce impacts to less than significant must be implemented. This

report is developed specifically to provide the required biological information necessary to produce an EIR for the project.

BIRDS OF PREY

Under the California Fish and Wildlife Code (Section 3503), all birds of prey (orders Falconiformes and Strigiformes) are protected. The code states that it is unlawful to take, possess, or destroy the nest or eggs of any such bird except in accordance with the Code. Any activity that would cause a nest to be abandoned or cause a reduction or loss in a reproductive effort is considered a take.

STREAMBED ALTERATION AGREEMENTS

The California Department of Fish and Wildlife (CDFW) is authorized under State Fish and Wildlife Code Sections 1600-1607 to develop mitigation measures and enter into Streambed Alteration Agreements with applicants (both public and private) that propose a project that would divert or obstruct the natural flow of or change the bed, channel, or bank of any lake or stream in which there is a fish or wildlife resource. Through this agreement, the CDFW may impose conditions to limit and fully mitigate impacts on fish and wildlife resources.

Local

STANISLAUS COUNTY

Stanislaus County General Plan

Pursuant to California Code Title 14, Section 65300 the 1994 Stanislaus County General Plan addresses biological resources in its Conservation/Open Space Element. The plan also includes local, regional, State, and federal programs and regulations as well as a comprehensive set of guiding and implementing policies. The following policies are applicable to the proposed project site:

CONS/OS: Policy 2 - Assure compatibility between natural areas and development;

CONS/OS: Policy 3 - Areas of sensitive wildlife habitat and plant life (e.g., vernal pools, riparian habitats, flyways and other waterfowl habitats, etc.) including those habitats and plant species listed in the General Plan Support Document or by state or federal agencies shall be protected from development;

CONS/OS: Policy 4 - Protect and enhance oak woodlands and other native hardwood habitat;

CONS/OS: Policy 5 - Protect groundwater aquifers and recharge areas, particularly those critical for the replenishment of reservoirs and aquifers;

CONS/OS: Policy 6 - Preserve vegetation to protect waterways from bank erosion and siltation;

CONS/OS: Policy 7 - New development that does not derive domestic water from pre-existing domestic and public water supply systems shall be required to have a documented water supply that does not adversely impact Stanislaus County water resources;

CONS/OS: Policy 30 - Habitats of rare and endangered fish and wildlife species shall be protected. Information on rare and endangered species and habitats is constantly being updated in response to a 1982 state law by the California State Department of Fish and Game through various sources which include the Stanislaus Audubon Society, California Native Plant Society, and the Sierra Club;

Policy Consistency

For the purposes of this analysis, relevant documents, particularly the Stanislaus County General Plan, Stanislaus County Code, and the Westside Industrial Specific Plan, were consulted. The proposed project was qualitatively assessed to determine whether it would conflict with biological policies or regulations. If the project was determined to conflict with any relevant plans, a determination was then made as to whether the conflicts or inconsistencies would result in any significant impacts that would otherwise be mitigated or avoided without the proposed project. The project proposes development designed in a way that is consistent with policies and regulations, including mitigation for significant impacts to special-status species.

Compliance with the goals, policies, and implementation measures of the Stanislaus County General Plan and Westside Industrial Specific Plan (no applicable codes are contained in the Stanislaus County Code) is required. In addition, the mitigation measures described below (Mitigation Measures MM 3.4.1a-d) would reduce impacts to special-status species to less-than significant levels.

CITY OF TURLOCK

Westside Industrial Specific Plan

Both sides of North Washington Street are in the City of Turlock city limits. The road is classified as an expressway in the Turlock General Plan. In addition to landscape screening for onsite parking areas, frontage improvements including curb, gutter, and sidewalk will be required along with a right turn lane into the project site. The proposed driveway would be aligned with the new traffic signal into the Blue Diamond facility on North Washington Road. All of these activities would be directly related to biological resource issues. Compliance with the Westside Industrial Specific Plan includes:

R-P 1: A biological field survey for special-status species and sensitive habitats shall be completed prior to development of all existing agricultural lands. If Swainson's Hawks are found foraging in an agricultural area prior to or during construction, the project proponent shall consult a qualified biologist for recommending proper action; and

R-P 2: Project proponents shall satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.

Chapter 6 of the WISP plan provide a detailed overview of the specific plan area including its infrastructure and services and land use objectives as related to biological resources.

3.4.2 PHYSICAL SETTING

The project site is located in the Central California Valley ecoregion. This ecoregion is characterized by flat, intensively farmed plains with long, hot dry summers and cool, wet winters. The Central California Valley ecoregion includes the Sacramento Valley to the north and the San Joaquin Valley to the south and ranges between the Sierra Nevada foothills to the east and the Coastal Range foothills to the west. Much of the region is actively farmed, and about three fourths of the farmed land is irrigated. The native vegetation within this region is primarily comprised of needlegrasses, native oaks, and vernal pools and wetland communities, but most of this vegetation has been replaced by exotic grasses or converted to agriculture, grazing land, or development projects. The regional climate varies greatly from the foothills of the Sierra Nevada Mountains to the foothills of Coastal Ranges. Winter temperatures in the project vicinity range between 38° Fahrenheit (F) and 54° F, and summer temperatures range between 63° F and 95° F. Average annual rainfall is 11.86 inches (WRCC). Most of the annual precipitation, which occurs almost entirely as rain, falls between the months of October and May.

The project site encompasses 61.7 acres located adjacent to the west boundary of the Turlock city limits (see Figure 2-1). The project site is located on the west side of N. Washington Road, south of Fulkerth Road, at the western boundary of the City of Turlock City Limits (see Figure 2-2).

Historically, vegetation communities in the vicinity of the project site likely consisted of a mosaic of Oak Woodland or Oak Savannah, Great Valley Mixed Riparian, and Valley Grassland communities. The vast majority of these vegetative communities have been eliminated from the San Joaquin Valley by conversion to agricultural and urban uses. Lands in the vicinity of the project site are currently dominated by residential, commercial and rural agricultural uses. The project site is currently in agricultural production, consisting almost entirely of sweet potato row crops. Three residences and associated barns are also located on the site. Several additional anthropogenic features, including a ponding basin, a pole barn, a storage shed, irrigation equipment, and packing crates are scattered throughout the project site as well.

Agricultural and commercial land uses surround the project site. Row crops are located to the north, and walnut orchards are located to the south and west (see Figure 2-4). A Blue Diamond business facility is located east of the project site, across Washington Road. Turlock Irrigation District canal #4 parallels the south perimeter of the project site along an east-west axis. Power lines bisect the project site along an east-west axis, and also bound the east perimeter of the

project site. North Washington and Fulkerth roads are both characterized by frequent vehicular traffic.

Site Characterization

The project site encompasses approximately 61.7 acres of land, most of which is in agricultural production. The residences, barns, storage sheds, and agricultural appurtenances are primarily located within the central eastern portion of the site. Newly planted sweet potato rows largely characterize the vegetation on the site.

There is relatively little soil type diversity on the project site. Only three soil types occur on the project site, though many others exist beyond the site within a 2-mile radius (see Figure 3.2-2). The soil types on the project site were various types of sandy loam and loamy sand (see Table 3.2-5). A description of the soil types and classification can be found in Section 3.2 of this EIR.

No natural plant communities are present on the site. The margins of the site, access roads, and residential areas only support ruderal species dominated by non-native grasses and forbs (Table 3.4-1). One of the most common plants on the site is puncture vine (*Tribulus terrestris*), which is listed by USDA as a State-listed class C noxious weed (USDA 2013). Noxious weeds possess one or more of the characteristics of being aggressive and difficult to manage, parasitic, a carrier or host of deleterious insects or disease, and being non-native, new to, or not common to the U.S. or parts thereof. Class C noxious weeds are known to be of economic and environmental detriment, and widespread in the state. C-rated organisms are eligible to enter the state as long as the commodities with which they are associated conform to pest cleanliness standards when found in nursery stock shipments. If found in the state, they are subject to regulations designed to retard spread or to suppress at the discretion of the individual county agricultural commissioner. A total of eleven trees occur on the project site. One eucalyptus (*Eucalyptus* spp.), four mulberry (*Morus alba*), two California redwood (*Sequoia sempervirens*), one black walnut (*Juglans nigra*), two California sycamore (*Platanus racemosa*), and one black locust (*Robinia pseudoacacia*) were identified. They were all centrally located near the residential structures (See Chapter Two).

One ponding basin that encompasses approximately 0.07 acre is located near the center of the project site. It is used for irrigation purposes, and therefore has an artificial inundation and drying regime. It does, however, support a mixture of young riparian tree saplings including sandbar willow (*Salix exigua*) and Fremont's cottonwood (*Populus fremontii*).

The size and diversity of wildlife populations in habitats is generally driven by the robustness and diversity of the plant communities that are present. The wildlife community on the site is sparse. This is not surprising given the lack of any semblance of a plant community and the low quality, heavily disturbed habitat. No mammal species were observed on the project site during the survey. Burrows and other signs of fossorial activity were minimal. Only a small number of common avian species were observed (Table 3.4-1). These included mourning doves (*Zenaida macroura*), American crows (*Corvus brachyrhynchos*), killdeer (*Charadrius vociferous*), and adult and juvenile western scrub jays.



BIOLOGICAL RESOURCES

Figure 3.4 - 1

Table 3.4-1
Plant and Animal Species Observed During the Field Surveys of
the Avila & Sons Project

Scientific Name	Common Name	On/Adjacent to the Project Site
<i>Aphelocoma californica</i>	Western scrub jay	On
<i>Baccharis neglecta</i>	False willow	On
<i>Charadrius vociferous</i>	Killdeer	On
<i>Conyza bonariensis</i>	Hairy fleabane	On
<i>Corvus brachyrhynchos</i>	American Crow	On
<i>Cyperus eragrostis</i>	Tall flatsedge	On
<i>Digitaria sanguinalis</i>	Crabgrass	On
<i>Eucalyptus</i>	Eucalyptus	On
<i>Hordeum vulgare</i>	Common barley	On
<i>Juglans nigra</i>	black walnut	On
<i>Malva neglecta</i>	Common mallow	On
<i>Morus alba</i>	White mulberry	On
<i>Platanus racemosa</i>	Sycamore	On
<i>Polypogon monspeliensis</i>	Rabbitfoots grass	On
<i>Populus fremontii</i>	Cottonwood	On
<i>Prunus persica</i>	peach tree	On
<i>Rumex crispus</i>	curly dock	On
<i>Salix exigua</i>	sandbar willow	On
<i>Sequoia sempervirens</i>	California redwood	On
<i>Tribulus terrestris</i>	Puncture vine	On
<i>Zenaida macroura</i>	Mourning Dove	On

(*Aphelocoma californica*). One large inactive raptor stick nest was observed in the eucalyptus tree on site. Although no other nests were seen, the project site may provide minimal foraging and nesting habitat for a variety of other migratory birds as well.

Special-Status Species

Prior to conducting the field survey, a query of the California Natural Diversity Database (CNDDDB) (June 2013), California Native Plant Society (CNPS) database (June 2013), and USFWS Threatened and Endangered Species List (June 2013) was conducted to assess whether occurrences of special-status species have been documented within the Turlock (423a) 7.5-minute topographical U.S. Geological Survey (USGS) quadrangle, which encompasses the project site, as well as within the surrounding eight 7.5-minute USGS quadrangles. These included the Hatch (423b), Crows Landing (424a), Waterford (442a), Riverbank (442b), Ceres (442c), Denair (442d), Salida (443a), and Brush Lake (443d) quadrangles. The CNDDDB was also queried for additional records within 10 miles of the project site to satisfy CDFW requirements. The CNDDDB provides element-specific spatial information on individual documented occurrences of special-status species and sensitive natural vegetation communities. Wildlife species designated as “Fully Protected” by California Fish and Wildlife Code Sections 5050 (Fully Protected reptiles and amphibians), 3511 (Fully Protected birds), and 4700 (Fully Protected mammals) were included in this list. The CNPS database provides similar information, but at a much lower spatial resolution, for additional sensitive plant species tracked

by the CNPS. The USFWS query generates a list of federally protected species known to potentially occur within individual USGS quadrangles.

The cumulative database search listed historical occurrences of one sensitive natural community, 12 special-status plant species, and 24 special-status wildlife species within the area queried (Table 3.4.3). There are no historical records of sensitive natural communities or special-status species occurring on the project site (Figure 3.4-2). However, there are confirmed records of special-status resources occurring within 10 miles of the project site (see Figure 3.4-2). These special-status resources include one sensitive natural community (Coastal and Valley Freshwater Marsh), eight special-status plant species, and eight special-status wildlife species. The nearest CNDDDB record is Swainson's hawk (*Buteo swainsoni*) (EODNX 69798), which was identified approximately 0.78 miles northeast of the project site, 0.4 miles west of Highway 99 in Turlock, on April 16, 2007. As indicated above, no special-status species were identified on the project site during the survey that was conducted. However, some of the special-status species listed by the database searches have the potential to occur on or immediately adjacent to the project site. These would be generally restricted to transient or foraging animals, as described below.

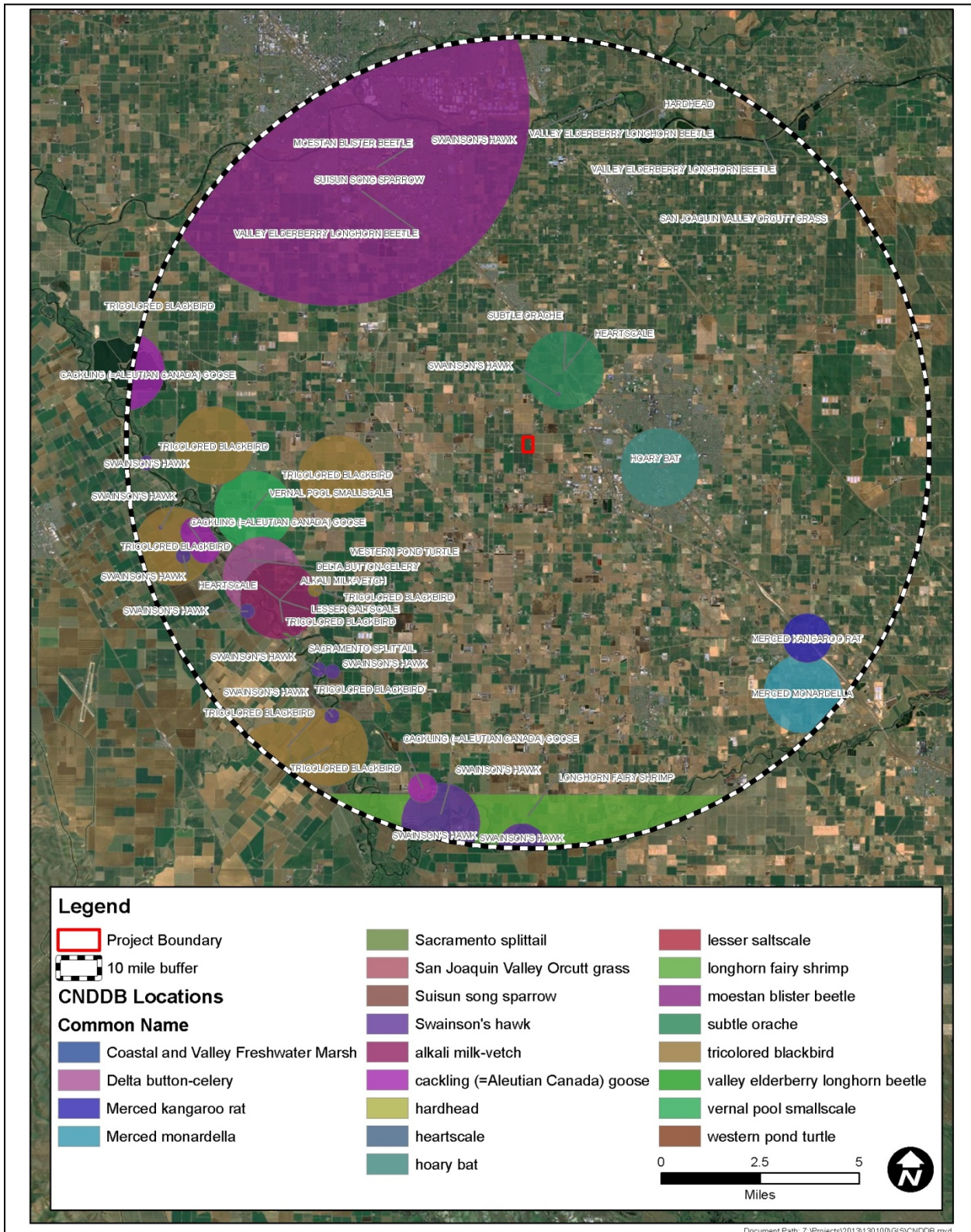
The USFWS Critical Habitat mapping portal was also queried. No USFWS Critical Habitat Units encompass the project site, and only one Critical Habitat Unit is located within 10 miles of the project site (Figure 3.4-3). This Critical Habitat Units WW1, WW2, VV2, VV3, VV4, and TT6 is designated for Central valley steelhead (*Oncorhynchus mykiss*), and is located approximately 7.3 and 7.7 miles north and south of the project site, respectively.

WESTERN POND TURTLE

There are no known historical records of the western pond turtle (*Actinemys marmorata pallida*) on the project site, but there is one historical record occurring within 10 miles (see Figure 3.4-2). This aquatic turtle is limited to water sources that provide adequate breeding, basking sites, and that adjoin upland wintering habitat. While the ponding basin does provide a wet feature and marginal aquatic vegetation, it lacks basking sites, flow, and connectivity to habitat. Furthermore, the aquatic habitat is largely degraded, and the surrounding upland habitat is highly disturbed with agricultural development. This species is not expected to occur on the project site.

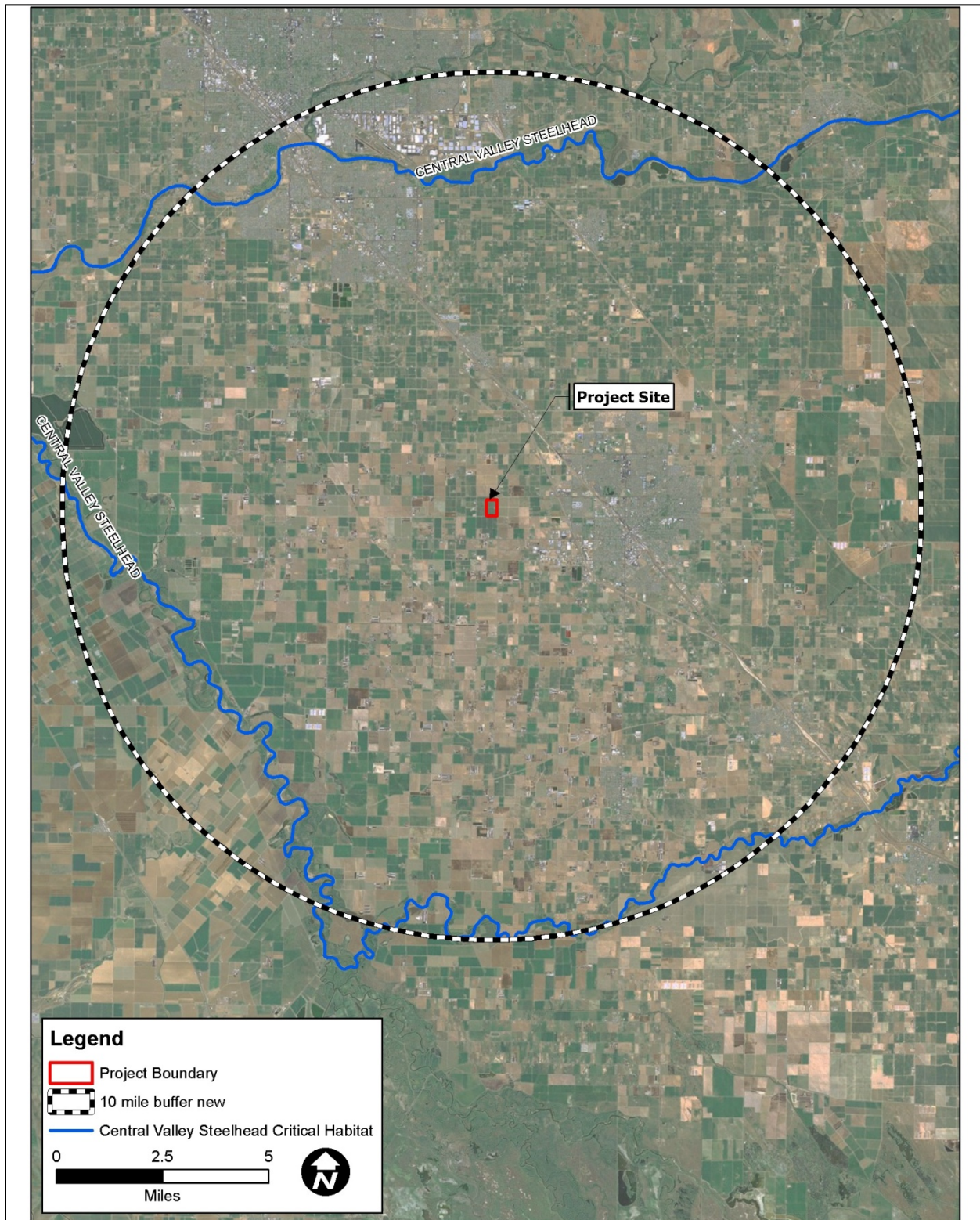
SAN JOAQUIN KIT FOX

There are no known historical records of the San Joaquin kit fox (*Vulpes macrotis mutica*) on the project site or within 10 miles of the project site (see Figure 3.4-2). No San Joaquin kit foxes or sign of San Joaquin kit foxes (e.g., dens, tracks, scat, characteristic scratch marks) were observed on the project site. San Joaquin kit foxes are known to utilize agricultural fields for foraging purposes. Therefore, due to the mobility of this species and its preferred foraging habitat, it could potentially occur on the project site as an occasional transient or forager.



CNDDDB MAP

Figure 3.4 - 2



CRITICAL HABITAT

Figure
3.4 - 3

SWAINSON'S HAWK

There are no known historical records of the Swainson's hawk (*Buteo swainsoni*) on the project site, but there are 12 historical records of this species within 10 miles of the project site (see Figure 3.4-2). Swainson's hawks generally breed within riparian forests and other forested areas. They roost in a variety of trees and forage widely over forests, grasslands, and shrublands. They are easily disturbed by human activities, but are known to forage in agricultural fields. One inactive raptor nest was observed on the project site. One record of a breeding Swainson's hawk is recorded approximately 0.78 mile northeast of the project site. This species could potentially forage or breed on the project site.

WESTERN BURROWING OWL

There are no known historical records of the western burrowing owl (*Athene cunicularia*) occurring on or within 10 miles of the project site (see Figure 3.4-2). Burrowing owls typically utilize a variety of arid and semi-arid environments with well-drained, level to gently sloping areas characterized by grassland or fallow land with a sparse herbaceous layer and friable soils. These conditions do occur along the margins of the project site and the ponding basin. This species could potentially occur on the project site.

TRICOLORED BLACKBIRD

There are no known historical records of the tricolored blackbird (*Agelaius tricolor*) occurring on the project site, but there are nine historical records occurring within 10 miles (see Figure 3.4-2). It is common locally throughout the Central Valley and in coastal districts from Sonoma County southward. The tricolored blackbird roosts in large flocks and breeds near fresh water, preferably in emergent wetland, with tall, dense cattails or tules, thickets of willow, blackberry, wild rose, and tall herbs. It forages on the ground in croplands, grassy fields, flooded lands, and along edges of ponds looking for insects. The ponding basin on the project site does not support adequate emergent wetland vegetation for nesting of this species. This species could possibly occur transiently or forage on the project site, but this would not be expected because no habitats with substantial emergent wetland cover were identified in the vicinity.

MIGRATORY BIRDS AND OTHER RAPTORS

Various species of migratory birds and raptors, which are protected by the Migratory Bird Treaty Act and various provisions of the California Fish and Wildlife Code, could potentially forage or breed on the project site. The trees and power poles on and adjacent to the site provide suitable nesting substrate. Ground-nesting avians could also nest on the project site in areas not directly within agricultural production.

3.4.3 IMPACT EVALUATION CRITERIA

Analysis Methodology

An on-site reconnaissance-level survey of the project site was conducted by a Quad Knopf biologist on June 13, 2013. The survey primarily consisted of completing pedestrian transects throughout the project site and its vicinity to map habitats, complete a species inventory, and evaluate the potential for special-status species to occur. “Windshield surveys,” however, were also completed along roads within 0.5 mile of the project site. General tasks completed during these efforts included:

- Characterizing vegetation associations and habitat conditions present on the project site;
- Inventorying plant and wildlife species, including raptor and nest surveys on the project site;
- Assessing the potential for special-status species to occur or near the project site;
- Delineating the boundary of Ordinary High Water Marks (OHWM) of the ponding basin using a Garmin GPS Unit (Oregon 550t, Waypoint Averaging); and
- Identifying and mapping trees within the project vicinity.

Based on the existing conditions from the reconnaissance-level survey and described above in Section 3.4.2, potential impacts on biological resources were determined by analyzing the change to the existing setting from construction and operation of the proposed project as these changes relate to disturbance of the existing biological features and mandatory compliance with the existing regulatory setting. Potential impacts were assessed with reference to the functional use of the site by biological resources of concern, which included:

- Each potentially affected special-status species, considered individually;
- Each potentially affected plant community;
- Each potentially affected wetland or riparian resource; and
- Non–special-status birds and/or nests.

Thresholds of Significance

Significance thresholds are based upon Appendix G of the *State CEQA Guidelines*. Using these Guidelines, the project would normally have a significant impact on biological resources if it would:

- a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in a local or regional*

plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*
- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.*
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.*
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

3.4.4 IMPACTS AND MITIGATION MEASURES

Impact #3.4-1 – Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Discussion: Some special-status species could potentially be present on the project site and be significantly impacted by the project. Each species is discussed below and appropriate measures to reduce impacts to below significant levels are provided where appropriate. Given the marginal quality and disturbed condition of habitat on the project site, implementation of the project will not contribute to a significant loss of habitat.

Special-Status Plant Species

No special-status plant species were observed on the project site during the reconnaissance-level survey. The project site does not contain habitat that would support special-status plant species. It is heavily disturbed and mostly in agricultural production. **No impacts** to special-status plant species would occur.

Special-Status Wildlife Species

No special-status wildlife species were observed on the project site during the reconnaissance-level survey, and none are likely to be present due to the intensive agricultural production that characterizes the project site and the surrounding lands. However, some special-status species

could potentially occur. These species include the San Joaquin kit fox, western burrowing owl, Swainson's hawk, and other migratory birds protected by the Migratory Bird Treaty Act. Each of these species could be present as transients or foragers. Additionally, the western burrowing owl could inhabit the margins of the project site. The Swainson's hawk or other migratory birds could nest in the trees on and near the project site. An inactive raptor nest was identified in the eucalyptus tree near the east perimeter of the project site. Impacts are *potentially significant*. Implementation of standard mitigation measures, such as preconstruction surveys, for avoidance and minimization will reduce potential biological impacts to *less than significant*.

Conclusion: Project-related impacts to special-status species will be *less than significant* with mitigation incorporated.

Mitigation Measure #3.4-1a:

1. In accordance with the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012), pre-construction surveys shall be conducted to determine the presence of occupied burrows if ground clearing or construction activities will be initiated during the nesting season or during the non-breeding season. The portion of the project site on which construction is to take place and potential nesting areas within 500 feet of the proposed construction area shall be surveyed no more than 30 days prior to the initiation of construction. Surveys shall be performed by a qualified biologist or ornithologist to verify the presence or absence of nesting birds. Construction shall not occur within a 500 foot buffer surrounding active nests of raptors or a 250 foot buffer surrounding active nests of migratory birds. If construction within these buffer areas is required or if nests must be removed to allow continuation of construction, then approval and specific removal methodologies shall be obtained from CDFW.
2. If during pre-construction nest surveys, burrowing owls are found to be present, the following measures shall be implemented:
 - a. Compensation for the loss of burrowing owl habitat will be negotiated with the responsible wildlife agencies. Appropriate mitigation may include participation in an approved mitigation bank, establishing a conservation easement, or other means acceptable to the responsible agency;
 - b. Exclusion areas will be established around occupied burrows in which no construction activities would occur. During the non-breeding season (September 1 through January 31), the exclusion area would extend 160 feet around any occupied burrows. During the breeding season of burrowing owls (February 1 through August 31), exclusion areas of 250 feet surrounding occupied burrows would be installed; and
 - c. If construction must occur within these exclusion areas, passive relocation of burrowing owls may be implemented as an alternative, but only during the non-breeding season and only with the concurrence of the CDFW. Passive relocation of burrowing owls would be implemented by a qualified biologist using accepted techniques. Burrows from which

owls had been relocated shall be excavated using hand tools and under direct supervision of a qualified biologist.

Effectiveness of Mitigation Measure: This mitigation measure is a standardized avoidance measure that has been approved by the CDFW. Implementation of Mitigation Measure #3.4.1a will prevent project-related disruption of occupied burrows. This measure will reduce potential impacts to the western burrowing owl to a level that is *less than significant*.

Mitigation Measure #3.4-1b: A Swainson’s hawk survey shall be completed within 0.5 mile of the project site. If potential nests are located within this search radius, those nests must be monitored for activity on a routine and repeating basis throughout the breeding season, or until a Swainson’s hawk or other raptor species is verified to be using each nest. A total of up to 10 visits shall be made to each nest: one between January and April to identify nests, three in April, three in May, and three between June 1 and July 15. To meet the minimum level of protection for the species, surveys shall be completed for at least two survey periods immediately prior to a project’s initiation. All surveys shall be conducted in accordance with the *Staff Report Regarding Mitigation for Impacts to Swainson’s Hawks in the Central Valley of California* (CDFG 1994), which includes the following guidelines:

1. A pre-construction survey shall be conducted to determine the presence of nesting birds if ground clearing or construction activities will be initiated during the breeding season (February 15 through September 15). The project site and potential nesting areas within 500 feet of the site shall be surveyed 14 to 30 days prior to the initiation of construction. Surveys will be performed by a qualified biologist or ornithologist to verify the presence or absence of nesting birds. Construction shall not occur within a 500 foot buffer surrounding nests of raptors or a 250 foot buffer surrounding nests of migratory birds. If construction within these buffer areas is required or if nests must be removed to allow continuation of construction, then approval will be obtained from California Department of Fish and Wildlife (CDFW);
2. All trees which are suitable for Swainson’s hawk nesting that are within 2,640 feet of construction activities shall be inspected for nests by a qualified biologist;
3. If potential Swainson’s hawk nests are located, surveys to determine whether Swainson’s hawks use those nests will be determined by conducting surveys at the following intensities, depending upon dates of initiation of construction:

Construction start	Survey period	Number of surveys
1 January to 20 March	1 January to 20 March	1
21 March to 24 March	1 January to 20 March	1
	21 March to 24 March	Up to 3
24 March to 5 April	1 January to 20 March	1
	21 March to 5 April	3
	21 March to 5 April	3
6 April to 9 April	6 April to 9 April	Up to 3
	1 January to 20 March	1 (if all 3 surveys are performed between 6 and 9 April, then this survey need not be conducted)
10 April to 30 July	21 March to 5 April	3
	6 April to 20 April	3

Construction start	Survey period	Number of surveys
31 July to 15 September	6 to 20 April	3
	10 to 30 July	3

- If Swainson’s hawks are detected to be nesting in trees within 600 feet of the construction area, construction will not occur within this zone until after young Swainson’s hawks have fledged (this usually occurs by early June). The nest will be monitored by a qualified biologist to determine fledging date. If Swainson’s hawks are found within the project area, the project site would be considered foraging habitat and compensation for foraging habitat would be required by CDFW at a ratio of 0.75 to 1 (0.75 acre for every 1.0 acre adversely affected).

Effectiveness of Mitigation Measures: This mitigation measure is a standardized avoidance measure that has been approved by the CDFW. Implementation of Mitigation Measure 3.4-1b will prevent project-related disruption of Swainson’s hawk nesting activity. Implementation of this measure will reduce potential impacts to the Swainson’s hawk to a level that is *less than significant*.

Mitigation Measure #3.4-1c: A pre-construction survey shall be performed on the project site in areas where there is a potential for nesting raptors and nesting migratory birds to occur if construction occurs during the breeding season (loosely defined as February 15 to August 15). These include all areas of the project site that contain or are within 500 feet of power poles or trees that are suitable for the establishment of raptor nests. These areas should also include non-native annual grassland habitat and unharvested alfalfa and grain crops, which provide potential breeding habitat for ground-nesting birds such as northern harriers, horned larks, and other migratory ground-nesting birds. The pre-construction survey shall be performed within 14 days of construction to identify active nests and mark those nests for avoidance. During the nesting period, raptor nests should be avoided by 500 feet and all other migratory bird nests should be avoided by 250 feet.

Effectiveness of Mitigation Measure: This mitigation measure is a standardized avoidance measure that has been approved by the CDFW and USFWS. Implementation of Mitigation Measure #3.4-1c will prevent project-related disruption of raptor and migratory bird nesting activities. Implementation of this measure will reduce potential impacts to nesting raptors and other migratory birds to a level that is *less than significant*.

Mitigation Measure #3.4-1d: To preclude potential project-related impacts to the San Joaquin kit fox, a series of avoidance and minimization measures shall be implemented in accordance with the *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 2011). The measures that are listed below have been excerpted from these guidelines and will protect the San Joaquin kit fox from direct mortality or den destruction.

- Pre-construction surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities, or any project

activity likely to impact the San Joaquin kit fox. Exclusion zones shall be placed around dens in accordance with USFWS recommendations using the following:

Potential Den	50 foot radius
Known Den	100 foot radius
Natal/Pupping Den (Occupied and Unoccupied)	Contact U.S. Fish and Wildlife Service for guidance
Atypical Den	50 foot radius

If dens must be removed, they shall be appropriately monitored and excavated by a trained wildlife biologist. Replacement dens would be required. Destruction of natal dens and other “known” kit fox dens shall not occur until authorized by USFWS.

2. Project-related vehicles shall observe a 20-mph speed limit in all project areas, except on County roads and State and federal highways; this is particularly important at night when kit foxes are most active. Nighttime construction shall be avoided, unless the construction area is appropriately fenced to exclude kit foxes. The area within any such fence shall be determined to be uninhabited by San Joaquin kit foxes prior to initiation of construction. Off-road traffic outside of designated project areas shall be prohibited.
3. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of the project, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals.
4. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipe, becoming trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the USFWS has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved once to remove it from the path of construction activity, until the fox has escaped.
5. All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and removed at least once a week from a construction or project Site.
6. No firearms shall be allowed on the project site during the construction phase.
7. To prevent harassment, mortality of kit foxes or destruction of dens by dogs or cats, no pets shall be permitted on the project site.
8. Use of rodenticides and herbicides in project areas shall be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and

Agriculture, and other State and federal legislation, as well as additional project-related restriction deemed necessary by the USFWS. If rodent control must be conducted, zinc phosphide shall be used because of a proven lower risk to kit fox.

9. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured, or entrapped kit fox. The representative will be identified during the employee education program and their name and telephone number shall be provided to the USFWS.
10. An employee education program shall be conducted for any project that has anticipated impacts to kit fox or other endangered species. The program shall consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and/or agency personnel involved in the project. The program shall include the following: A description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information shall be prepared for distribution to the previously referenced people and anyone else who may enter the project site.
11. Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc. shall be re-contoured if necessary, and revegetated to promote restoration of the area to pre-project conditions. An area subject to “temporary” disturbance means any area that is disturbed during the project, but after project completion will not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas shall be determined on a site-specific basis in consultation with the USFWS, California Department of Fish and Wildlife (CDFW), and revegetation experts.
12. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape, or the USFWS shall be contacted for guidance.
13. Any contractor, employee, or military or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFW immediately in the case of a dead, injured, or entrapped kit fox. The CDFW contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or Mr. Paul Hofmann, the wildlife biologist, at (530) 934-9309. The USFWS shall be contacted at the numbers below.
14. The Sacramento USFWS and CDFW shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The USFWS contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers below. The

CDFW contact is Mr. Paul Hofmann at 1701 Nimbus Road, Suite A, Rancho Cordova, California 95670, (530) 934-9309.

15. New sightings of kit foxes shall be reported to the California Natural Diversity Database (CNDDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed shall also be provided to the USFWS at the address below.

Any project-related information required by the USFWS or questions concerning the above conditions or their implementation may be directed in writing to the U.S. Fish and Wildlife USFWS at:

Endangered Species Division
2800 Cottage Way, Suite W2605
Sacramento, California 95825-1846
(916) 414-66200 or (916) 414-6600

Effectiveness of Mitigation Measures: This mitigation measure includes standard avoidance and minimization measures that have been approved by the CDFW and USFWS. Implementation of Mitigation Measure #3.4-1d will preclude impacts to San Joaquin kit fox adults or their young. Implementation of this measure will reduce potential impacts to the San Joaquin kit fox to a level that is *less than significant*.

Impact #3.4-2 – Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Discussion: Riparian habitats are distinct communities located at the interface of aquatic and upland habitats. The ponding basin located on the project site does support a very sparse layer of underdeveloped riparian species, but the lack of plant diversity and other riparian habitat elements, coupled with a high level of disturbance, precludes designating this feature as riparian habitat. The project will result in *no impact* riparian habitats or other sensitive natural communities.

Conclusion: The project will have *no impacts* to riparian habitats or sensitive natural communities.

Mitigation Measure: No mitigation measures are required.

Impact #3.4-3 – Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Discussion: There are no Waters of the United States, including wetlands, that would be regulated by the USACE on the project site. There is one artificial ponding basin on the project site, but it is used for irrigation storage and runoff, and so has an artificial inundation and drying

regime. This feature is isolated and is unlikely to have a significant nexus with Waters of the United States. It does not meet the standard federal criteria for wetlands. The nearest documented wetland is a freshwater pond located approximately 0.28 mile southeast of the project site. The cement-lined irrigation canal south of the project site is likewise not considered to be a Waters of the United States because it is not known to connect to traditionally navigable waters. Accordingly, there are *no impacts* to wetlands or other waters protected under Section 404 of the Clean Water Act.

Although the ponding basin is not regulated by USACE, it likely considered to be a water of the state under the jurisdiction of the Regional Water Quality Control Board (RWQCB). In accordance with the Porter-Cologne Act, the RWQCB typically claims jurisdiction of all surface waters. The CDFW could also potentially claim jurisdiction of the basin under CDFW Code Section 1600, regardless of its nexus to other waterways. However, it is unlikely that CDFW would claim such jurisdiction because the basin lacks riparian habitat, does not support sensitive biological resources, and is devoid of any semblance of a wildlife community. Nonetheless, consultation with both the RWQCB and the CDFW is recommended to verify jurisdictional status.

Conclusion: The project will have *no impacts* to wetlands or other waters protected under Section 404 of the Clean Water Act.

Mitigation Measure: No mitigation measures are required.

Impact #3.4-4 – Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Discussion: Wildlife movement corridors are routes that provide shelter and sufficient food supplies to support wildlife species during migration. Movement corridors generally consist of riparian, grassland, or woodland habitats that span contiguous acres of undisturbed land, and are important elements of species' home ranges. The project site is not considered a fish or wildlife movement corridor or nursery site. The reconnaissance-level surveys did not identify any habitats on the project site that would qualify as these unique biological landscape features. The project will *not impact* fish or wildlife corridors or nursery sites.

Conclusion: The project will have *no impacts* to fish or wildlife movement corridors or nursery sites.

Impact #3.4-5 -- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Discussion: The Open Space and Conservation Element of the Stanislaus County General Plan calls for all discretionary projects with potential impacts to oak woodlands to have a management plan for the protection and enhancement of oak woodlands and other native hardwood habitat, and to also consider adoption of an ordinance to protection trees with

historical significance (Policy 4). However, no oak woodland or oak trees exist on the project site.

Conclusion: The project will not conflict with any local policies or ordinances protecting biological resources. The project also will not conflict with the recovery plan for upland species of the San Joaquin Valley (USFWS 1998). There are *no impacts*.

Mitigation Measure: No mitigation measures are required.

Impact #3.4-6 -- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Discussion: The project site is not located within the boundaries of any adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan or any other local, regional, or state conservation plan. As such, *no impact* would occur.

Conclusion: There are no conflicts with any such plan and mitigation measures are not warranted.

Mitigation Measure: No mitigation measures are required.

3.5 Cultural Resources

This section provides an evaluation of the potential cultural resources impacts that would be caused by implementation of the proposed project. The discussion starts with an overview of regulation that is normally applicable to the cultural resources environmental factor, followed by a description of the physical setting of both the site and surrounding lands. An analysis is then provided to determine whether the impact(s) would be less than significant, significant without mitigation, or significant and unavoidable. If an impact is significant and can be reduced with mitigation, then a description of the mitigation measure(s) is provided. This section was prepared using a Records Search by the Central California Information Center (Appendix C).

3.5.1 REGULATORY SETTING

Federal, State, and local governments have developed laws and regulations designed to protect significant cultural resources that could be affected by actions that they undertake or regulate. The National Environmental Policy Act (NEPA), the National History Preservation Act of 1966 (NHPA), the American Antiquities Act of 1906, and the California Environmental Quality Act (CEQA) are the principal federal and state laws governing preservation of historic and archaeological resources of national, regional, state, and local significance.

Paleontological resources on federal lands are protected under various laws relating to the protection of public properties; these laws are enforced through the issuance of permits by the appropriate agencies. However, paleontological resources existing on private property within California are generally unprotected under State law.

Federal

Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementation regulations, "Protection of Historic Properties," are found in 36 Code of Federal Regulations (CFR) Part 800. The goal of the Section 106 review process is to offer a measure of protection to sites that are determined eligible for listing on the National Register of Historic Places. The criteria for determining National Register eligibility are found in 36 CFR Part 60. Amendments to the NHPA (1986 and 1992) and subsequent revisions to the implementing regulations have, among other things, strengthened the provision for Native American consultation and participation in the Section 106 review process. Although federal agencies must follow federal regulations, most projects of private developers and landowners do not require this level of compliance. Federal regulations only apply in the private sector if a project requires a federal permit or if it uses federal money (federal nexus).

Under the NHPA, the quality of significance in American history, architecture, archaeology, and culture must be evaluated for districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, material, handiwork, feeling, and association. Additionally, the National Register of Historic Places requires consideration of significance for any structure over 45 years old.

State

State historic preservation regulations affecting this project include the statutes and guidelines contained in CEQA (Public Resources Code Sections 21083.2 and 21084.1, and Sections 15064.5 and 15126.4(b) of the CEQA Guidelines). CEQA requires lead agencies to carefully consider the potential effects of a project on historical resources. Historical resource includes, but is not limited to, any object, building, structure, site, area, place, record or manuscript that is historically or archaeologically significant (Public Resources Code Section 5020.1).

Advice on procedures to identify such resources, evaluate their importance, and estimate potential effects is given in several agency publications such as the series produced by the Governor's Office of Planning and Research (OPR), CEQA and Archaeological Resources (1994). The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities including, but not limited to, museums, historical commissions, associations and societies be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains, and associated grave goods regardless of the antiquity and provides for the sensitive treatment and disposition of those remains (California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097 et seq.).

The State Historic Preservation Office (SHPO) maintains the California Register of Historical Resources (CRHR). Properties listed, or formally designated as eligible for listing, on the National Register of Historic Places are automatically listed on the CRHR, as are State Landmarks and Points of Interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

For the purposes of CEQA, a historical resource is a resource listed in, or determined eligible for listing, on the CRHR. When a project will impact a site, it needs to be determined whether the site is a historical resource. The criteria are set forth in Section 15064.5(a)(3) of the CEQA Guidelines, and are defined as any resource that:

- A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- B. Is associated with the lives of persons important in our past;
- C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values;
or
- D. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, CEQA Guidelines Section 15064.5(a)(4) states:

The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in

an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

CALIFORNIA STATE HISTORICAL LANDMARKS IN STANISLAUS COUNTY

Properties of historical importance in California are currently designated as significant resources in three state registration programs: State Historical Landmarks, Points of Historical Interest, and the California Register of Historic Places.

CALIFORNIA HEALTH AND SAFETY CODE SECTIONS 7050.5, 7051, AND 7054

These sections collectively address the illegality of interference with human burial remains, as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction, and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation, and reburial procedures.

CALIFORNIA PUBLIC RESOURCES CODE SECTION 15064.5(E)

This law addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction. The section establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project and establishes the Native American Heritage Commission (NAHC) as the entity responsible to resolve disputes regarding the disposition of such remains.

SENATE BILL (SB) 18/922

Senate Bill 18, signed into law by Governor Schwarzenegger in September 2004, requires cities and counties to notify and consult with California Native American tribes about proposed adoption of, or changes to, general plans and specific plans for the purpose of protecting Traditional Tribal Cultural Places. Interim tribal consultation guidelines were published by OPR on March 1, 2005. The proposed project falls under the SB 18 requirements as defined by OPR, and the City of Fresno is required to contact NAHC and request consultation. SB 922 provides additional guidance to agencies.

Local

STANISLAUS COUNTY

General Plan

Pursuant to California Code Title 14, Section 65300 the 1994 Stanislaus County General Plan addresses cultural resources in several of its Elements including the Conservation and Open Space Element. The plan also includes local, regional, State, and federal programs and

regulations as well as a comprehensive set of guiding and implementing policies. These policies are listed next:

CON/OP: Policy Twenty-Four-The County will support the preservation of Stanislaus County's cultural legacy of historical and archeological resources for future generations; and

(Comment: Landmarks of historical consequence not only include old schoolhouses, and covered bridges, but also such sites as Native American burial grounds, cemeteries, pottery, rock carvings, and rock paintings. Normally, "sensitive" areas are often located near natural watercourses, springs or ponds, or on elevated ground. However, due to the silt build-up in the valley and the meandering of rivers, archaeological and historical sites may be found in unsuspected areas.)

CON/OP: Policy Twenty-Five-"Qualified Historical Buildings" as defined by the State Building Code shall be preserved.

CITY OF TURLOCK

Westside Industrial Specific Plan

As previously mentioned, both sides of North Washington Street are in Turlock's city limits so will have to comply with the WISP. The road is classified as an expressway in the Turlock General Plan. In addition to landscape screening for onsite parking areas, frontage improvements including curb, gutter, and sidewalk will be required along with a right turn lane into the project site. The proposed driveway would be aligned with the new traffic signal into the Blue Diamond facility on North Washington Road. All of these activities could potentially affect cultural issues. Compliance with the WISP will include the following policies:

R-P 48: If previously unrecorded archaeological resources, as defined by State Law, are discovered, construction activities shall be suspended and a qualified archaeologist shall be called to evaluate the find and to recommend proper action;

R-P 49: If human remains are discovered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the coroner determines that no investigation of the cause of death is required and if the remains are of Native American origin, the coroner will notify the Native American Heritage Commission, which in turn will inform a most likely descendant. The descendant will then recommend to the landowner appropriate disposition of the remains and any grave goods;

R-P 50: In accordance with State law, if any historical resources are found during construction, work is to stop and the City of Turlock and a qualified professional are to be consulted to determine the importance and appropriate treatment of the find;

R-P 51: The existing structures identified as potentially eligible for the California Register of Historic Resources shall be evaluated by a qualified archaeologist or historian prior to proposed development on that property. Proper action as recommended by the qualified archaeologist or historian shall be considered in the proposed development process; and

R-P 52: Where historically significant structures cannot be preserved intact, the project proponent should seek to preserve the building facades. At a minimum, the structures shall be photographed for the City's historic archives.

Chapter 6 of the WISP plan provides a detailed overview of the plan area including its cultural resources objectives. The plan can be accessed at the City of Turlock's website using the following path: <http://www.ci.turlock.ca.us/pdflink.asp?pdf=documents/developmentservices/planning/guidelines/WISP.pdf?o=o&title=Westside%20Industrial%20Specific%20Plan>.

3.5.2 PHYSICAL SETTING

The project is located on the southwest corner of Fulkerth Road and North Washington Road, east of North Commons Road, in the Turlock area within the San Joaquin Valley. Currently, agricultural activities occur on a day-to-day basis. Historically the site has been utilized for agricultural purposes. The entire site has been disturbed by farming equipment and vehicular traffic.

Archaeological

The proposed project site is located in the San Joaquin Valley, which has been occupied by Native American groups for thousands of years. There is evidence of human habitation in the San Joaquin Valley dating to 11,000 years ago, although only a few archaeological sites of this antiquity have been identified at the present time.

During Pre-European time, in the area to be known as Stanislaus County, lived two native cultures: Miwoks and Yokuts. The Miwoks lived along the eastern side, primarily in the foothills, while the Yokuts lived in the valley (Santos, 2002).

Upon contact with the Europeans, which first occurred in the late 1700s, the numbers of Yokuts rapidly diminished. Their home of the valley floor was readily accessible to encroachment by settlers. The early pioneers were followed in rapid succession by the farmers with the plow and by fences, roads, railroads, and flourishing cities. By the 1910 census, a total of 533 Yokuts were counted in the state.

HISTORICAL

Historic preservation helps a community retain physical links to significant architecture, persons, events, and landscapes from past time periods. As Stanislaus County moves into the twenty-first century and intensifies its land uses, there will be development pressure on older sections of the County. The Stanislaus General Plan and WISP provides policy direction to protect, and to continue appropriate use of, Stanislaus historic resources. Structures of architectural quality and

locations of cultural significance (including prehistoric sites, structures, and neighborhoods/districts) are to be preserved through identification, listing on Historic Registers, monitoring, maintenance, and safeguarding of their settings.

3.5.3 IMPACT EVALUATION CRITERIA

Analysis Methodology

The methodology used to determine whether the proposed project would result in significant impacts on cultural resources began with checking the Historic Preservation's website for potential listings in and around the proposed project site. If this search resulted in evidence of any type of cultural resources either on or within 1 mile of the proposed project site, then a significant impact could occur. In addition, any construction or operational activities on lands that was previously undisturbed was considered significant.

Thresholds of Significance

In determining the significance of impacts to culture resources, Section 15064.5 of the CEQA Guidelines was used as required by the CEQA Guidelines for evaluating adverse effects on cultural resources:

- a) *Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.*
- b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.*
- c) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.*
- d) *Disturb any human remains, including those interred outside of formal cemeteries.*

Should the proposed project site or areas within 1 mile of the site include cultural resources, then a significant impact would occur.

3.5.4 IMPACTS AND MITIGATION MEASURES

Impact #3.5-1 – Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.

Impact #3.5-2 – Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

According to CEQA Guidelines Title 14, Section 15064.5 an “historical resource” can be defined as a resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources (Pub. Res. Code, 5024.1, Title 14 CCR, Section 4850 et seq.). Historical resources are classified as either state landmarks or points

of interest and included on the California Register of Historical Resources or the National Register of Historic Places depending on how they are defined. Table 3.5-1 includes a description of each.

**Table 3.5-1
Historical Resources Classifications**

California Historical Landmarks	Landmarks	Buildings, sites, features, or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other historical value.
California Points of Historical Interest	Points	Buildings, sites, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other historical value.
California Register of Historical Resources	California Register	Buildings, sites, structures, objects and districts significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. The resources below were listed in the California Register by the <u>State Historical Resources Commission</u> . This is not a comprehensive list of resources on the California Register and does not reflect resources listed in the California Register by consensus determination. To obtain a complete list of resources listed in the California Register please contact the appropriate regional <u>Information Center</u> .
National Register of Historic Places	National Register	Buildings, structures, objects, sites, and districts of local, state, or national significance in American history, architecture, archeology, engineering, and culture.

Source: Office of Historic Preservation, 2013a.

A records search of historical and archaeological resources was completed on November 7, 2013 by the Central California Information Center. The search included reviewing maps and federal- and State-related websites plus other related information to assess whether historical and/or archaeological resources exist on the proposed project site or in the immediate vicinity. Results of the entire record search are contained in Appendix C.

According to the records search, existing data in the Central California Information Center's files show that the project area has a sensitivity for the possible discovery of historical resources as found on the 1953 USGS map references showing four possible extant buildings that are 60 years in age or older. There are possible historical features involved in the proposed project that are 45 years or older and considered as historical resources requiring further study and evaluation by a qualified professional of the appropriate discipline. If demolition of any existing historic buildings or structures is part of the proposed project, then survey and evaluation by a qualified historical resource's consultant is recommended prior to implementation of the project or issuance of any discretionary permit.

The proposed project does not include demolition of any existing buildings, as discussed in Chapter 2 of this EIR. However there will be modifications to an existing barn and pole barn, and historical resources could be uncovered during ground disturbing activities. The recommendations of the Central California Information Center will be applied as Mitigation Measures #3.5-1a and #3.5-1b to reduce potential impacts to less than significant.

Conclusion: Although there is no record evidence of historical or archaeological sites on the project site, there is the potential during ground disturbing activities to uncover historical resources. This impact is *potentially significant*, but can be mitigated to a *less-than-significant* level with the following mitigation measures:

Mitigation Measure #3.5-1a: In accordance with State law, if any historical resources are discovered during project-related activities, all work is to stop and the lead agency and a qualified professional are to be consulted to determine the importance and appropriate treatment of the find. If Native American remains are found the County Coroner and the Native American Heritage Commission, Sacramento (916-653-4082) is to be notified immediately for recommended procedures.

Mitigation Measure #3.5-1b: In the event that a historical resources consultant is retained, the firm or individual shall be responsible for submitting any report of findings prepared for the proposed project to the Central California Information Center, including one copy of the narrative report and two copies of any records that document historical resources found as a result of field work.

Effectiveness of Mitigation: Potential impact to historical and archaeological resources would be *less than significant* with implementation of the above mitigation measures.

Impact #3.5-3 – Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature of paleontological or cultural value.

Paleontological resources include vertebrate, invertebrate and plant fossils. All prehistoric human related artifacts are considered "archeological" resources and all human-related artifacts from the era of the written record are considered "historical" resources. Although there can be some cross-over between archeological and historical resources, "historical" is generally applied to artifacts dating from the start of European colonization of the region.

Impacts on paleontological resources or geologic features can result either directly or indirectly from pre-construction activities and construction of a proposed project. Direct impacts are those which result from the immediate disturbance of resources by vegetation removal, vehicle travel over the surface, earthmoving activities, excavation, or alteration of the setting of a resource. Indirect impacts are those which result from increased erosion due to project site clearance and preparation, or from inadvertent damage or outright vandalism to exposed resource materials which could occur due to improved accessibility. The project site has been historically and extensively used for agricultural activities which include driving equipment, tilling, disking, and other agricultural practices. However, as mentioned above ground disturbances will occur.

Conclusion: Although there is no record evidence of paleontological resources or geologic features on the project site, there is the potential during project-related excavation and construction for the discovery of potential resources. This impact is *potentially significant*, but can be mitigated to a *less-than-significant* level as follows:

Mitigation Measures: Implementation of Mitigation Measures #3.5-1a and #3.5-1b. No additional mitigation measures are required.

Effectiveness of Mitigation: Potential impact to paleontological resources and geological features would be *less than significant* with implementation of the above mitigation measure.

Impact #3.5-4 – Disturb any human remains, including those interred outside of formal cemeteries.

In accordance with the mandates of Section 7050.5 of the California Health and Safety Code, if human remains are discovered during the construction phase of a development, all work must stop in the immediate vicinity of the find, and the County Coroner must be notified. If the remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission, which in turn will inform a most likely descendant. The descendant will then recommend to the landowner the appropriate method for the disposition of the remains and any associated grave goods.

Conclusion: Although there is no record evidence of human burials on the project site there is the potential during project-related excavation and construction for the discovery of such. This impact is *potentially significant*, but can be mitigated to a *less than significant* level as follows.

Mitigation Measures: Implementation of Mitigation Measures #3.5-1a and #3.5-1b. No additional mitigation measures are required.

Effectiveness of Mitigation: Potential impact to human remains would be *less than significant* with implementation of the above mitigation measure.

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3.6 Geology and Soils

This section provides an evaluation of the potential geology and soils impacts that would be caused by implementation of the proposed project. The discussion starts with an overview of regulation that is normally applicable to the geology and soils environmental factor, followed by a description of the physical setting of both the site and surrounding lands. An analysis is then provided to determine whether the impact(s) would be less than significant, significant without mitigation, or significant and unavoidable. If an impact is significant and can be reduced with mitigation, then a description of the mitigation measure(s) is provided.

3.6.1 REGULATORY SETTING

Federal

UNIFORM BUILDING CODE

The Uniform Building Code includes development standards for projects to comply with appropriate seismic design criteria, and adequate drainage facility design, and preconstruction soils and grading studies. Seismic design standards have been established to reduce many of the structural problems occurring because of major earthquakes. In 1998, the code was revised as follows:

- Upgrade the level of ground motion used in the seismic design of buildings;
- Add site amplification factors based on local soils conditions; and
- Improve the way ground motion is applied in detailed design.

CLEAN WATER ACT (EROSION CONTROL)

The Clean Water Act (CWA) (33 USC 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain nonpoint source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). Projects that disturb one or more acres of land are required to obtain NPDES coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction Activity (General Permit), Order No. 99-08-DWQ. The General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which includes Best Management Practices (BMPs) to protect stormwater runoff, including measures to prevent soil erosion.

State

INTERNATIONAL BUILDING CODE/CALIFORNIA BUILDING CODE

The International Building Code (IBC) incorporates data regarding the response of structures to seismic events as a basis for structural design. The IBC considers primary lateral seismic forces and general soil types. The objective of the IBC is to protect the life safety of building occupants

and the public. The IBC provisions are enforced by the City through the building permit process during which plans for proposed structures are examined for compliance with the applicable provisions of the IBC. In large earthquakes, compliance with provisions of the IBC would reduce the risk of complete structural failure, although structural damage may be expected. All new construction must comply with the current version of the IBC.

ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT

The Alquist-Priolo Earthquake Fault Zoning Act (CPRC Division 2, Chapter 7.5) was passed in 1972 in an effort to reduce the potential human safety risks associated with surface faults by preventing the construction of buildings used for human occupancy on the surface trace of active faults. The law only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. The act requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps. The maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling new or renewed construction. Local agencies must regulate most development projects within the zones. Maps are also available on the agency's website at <http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm> (State of California, Department of Conservation 2007a).

SEISMIC HAZARDS MAPPING ACT

The Seismic Hazards Mapping Act (SHMA) of 1990 addresses earthquake hazards other than fault rupture, including liquefaction and seismically induced landslides. Seismic hazard zones are to be mapped by the State Geologist to assist local governments in land use planning. The SHMA states that, "It is necessary to identify and map seismic hazard zones in order for cities and counties to adequately prepare the safety element of their general plans and to encourage land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety." Section 2697(a) of the SHMA additionally requires that, "Cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard" (State of California, Department of Conservation 2007b).

Local

STANISLAUS COUNTY

General Plan

Pursuant to California Code Title 14, Section 65300 the 1994 Stanislaus County General Plan addresses geology and soils in its Safety Element and Housing Element. The plan also includes local, regional, State, and federal programs and regulations as well as a comprehensive set of guiding and implementing policies. These policies include:

LU: Policy Four- Urban development shall be discouraged in areas with growth-limiting factors such as high water table or poor soil percolation, and prohibited in geological fault and hazard areas, flood plains, riparian areas, and airport hazard areas unless measures to mitigate the problems are included as part of the application;

SE: Policy One-The County will adopt (and implement as necessary) plans inclusive of the Multi-Jurisdictional Hazard Mitigation Plan, to minimize the impacts of a natural and man-made disasters;

SE: Policy Three-Development should not be allowed in areas that are particularly susceptible to seismic hazard;

SE: Policy Five-Stanislaus County shall support efforts to identify and rehabilitate structures that are not earthquake resistant;

SE: Policy Six-All new development shall be designed to reduce safety and health hazards;

SE: Policy Fourteen-The County will continue to enforce state-mandated structural Health and Safety Codes, including but not limited to the Uniform Building Code, the Uniform Housing Code, the Uniform Fire Code, the Uniform Plumbing Code, the National Electric Code, and Title 24. (Comment: The Uniform Building Code includes provisions for safe construction under the most current standards. The Uniform Housing Code provides for upgrading of existing dwellings to eliminate health and safety problems without requiring upgrading of non-hazardous conditions.); and

HE: Policy/Program 1-9- Continue to enforce federal and State laws to provide minimum health and safety standards in housing and other structures.

Additional policies related to geology and soils are also included in the County Code. The proposed project must also be in compliance with these regulations which are discussed next.

Stanislaus County Code

The Stanislaus County Code Title 16, Chapters 16.05 through 16.15 govern certain activities throughout the County that are related to the geology and soils section of this report. The proposed project's construction phases would include building a 180,000 square foot warehouse for the storage of produce. Compliance with the following regulations will be required:

- Title 16, Chapter 16.05 Building Code;
- Title 16, Chapter 16.10 Plumbing Code; and
- Title 16, Chapter 16.15 Electrical Code.

North Washington Road is in the City of Turlock's WISP limits and designated as an expressway in the City's General Plan. Consequently, grading within the North Washington Road right-of-way would be subject to the City of Turlock's WISP.

CITY OF TURLOCK

Westside Industrial Specific Plan

As previously mentioned, the right-of-way of North Washington Street is in the Turlock city limits so will have to comply with the WISP. The road is classified as an expressway in the Turlock General Plan. In addition to landscape screening for onsite parking areas, frontage

improvements including curb, gutter, and sidewalk will be required along with a right turn lane into the project site. The proposed driveway would be aligned with the new traffic signal into the Blue Diamond facility on North Washington Road. All of these activities are directly related to soils and geology issues. Compliance with the WISP will include the following policies:

R-P 3: Minimize soil erosion and loss of topsoil from land development activities, wind, and water flow.

R-P 4: Comply with the Uniform Building Code (UBC) requirements for specific site development and construction standards for specified soils types.

R-P 5: Comply with the Uniform Building Code (UBC), Chapter 70, regulating grading activities including drainage and erosion control.

R-P 6: Site-specific survey and research shall be completed for proposed development projects, including appropriate mitigation measures for avoiding or reducing erosion, if needed. This requirement may be waived if the City determines that the proposed project area is already sufficiently surveyed.

DS 7: Any constructed drainage swales and catchment/infiltration areas should be stabilized by appropriate soils stabilization measures to prevent erosion.

R-P 37: Soils stabilization is required at all construction sites after normal working hours and on weekends and holidays, as well as on inactive construction areas during phased construction. Methods include short-term water spraying, and long-term dust suppressants and vegetative cover.

Chapter 6 of the WISP plan provides a detailed overview of the specific plan area, including its soil objectives as related to geology and soils (City of Turlock 2006). The plan can be accessed at the City of Turlock's website using the following path:

<http://www.ci.turlock.ca.us/pdflink.asp?pdf=documents/developmentservices/planning/guidelines/WISP.pdf?o=o&title=Westside%20Industrial%20Specific%20Plan>.

3.6.2 PHYSICAL SETTING

Regional Geology

Special Report 173, completed by the California Department of Conservation, Division of Mines and Geology in 1993, provides the following information on Stanislaus County which is situated in parts of three geologic provinces. From west to east, these are the Coast Ranges, Great Valley, and Sierra Nevada. The boundary between the Coast Ranges and the Great Valley provinces is interpreted here as the abrupt change in topography from relatively flat plain to hills. The boundary between the Great Valley and Sierra Nevada provinces is more transitional and is interpreted here to approximately coincide with the area where the contacts between older Cenozoic and Jurassic rocks are exposed.

The Coast Ranges Province is the most lithologically diverse and structurally complex part of the county. It is composed dominantly of marine sedimentary rocks with lesser amounts of igneous and nonmarine sedimentary rocks. This province hosts the greatest variety of mineral deposits found in the county.

Flat-lying Cenozoic alluvial sediments formed by the coalescence of successive alluvial fans derived from the Sierra Nevada and Coast Ranges characterize the Great Valley Province. It is host to all current mining in Stanislaus County as well as the rich soils that support the county's extensive agriculture. .

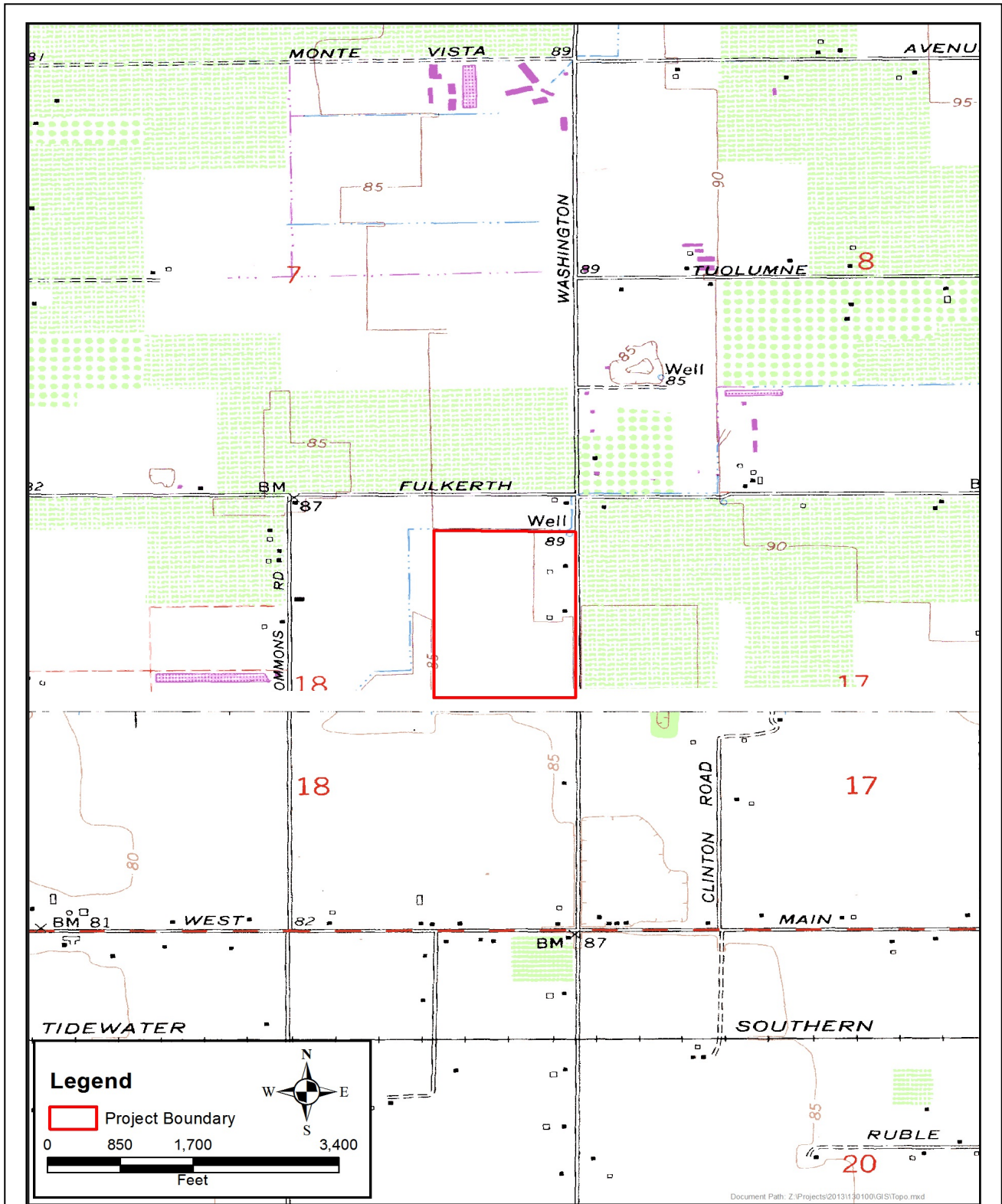
A narrow hilly strip in the north easternmost part of the county forms the Sierra Nevada Province. It is characterized by an irregular pattern of older Cenozoic sedimentary and volcanic rocks that overlie Jurassic metavolcanic and metasedimentary rocks. It has been the ultimate source of most of the metallic and nonmetallic minerals mined in the eastern part of the county.

The regional geologic structure of the county ranges from relatively simple to the east and very complex to the west. The central and eastern parts of the county comprise a relatively stable structural environment, characterized by the successive deposition of Cretaceous and Cenozoic sediments over a gently inclined, eroded crystalline basement. The western part of the county represents an area of intense tectonism, which continues today, as demonstrated by earthquakes and the youthful geomorphology of the Coast Ranges Province. Here, the rocks have been extensively folded and faulted, initially during eastward directed subduction and then during development of the San Andreas Fault System in western California. At present, this part of the county is apparently undergoing northeast-southwest compression and resultant shortening, oriented at right angles to the boundary between the Coast Ranges and Great Valley (Wentworth and Zoback, 1989).

Local Geology

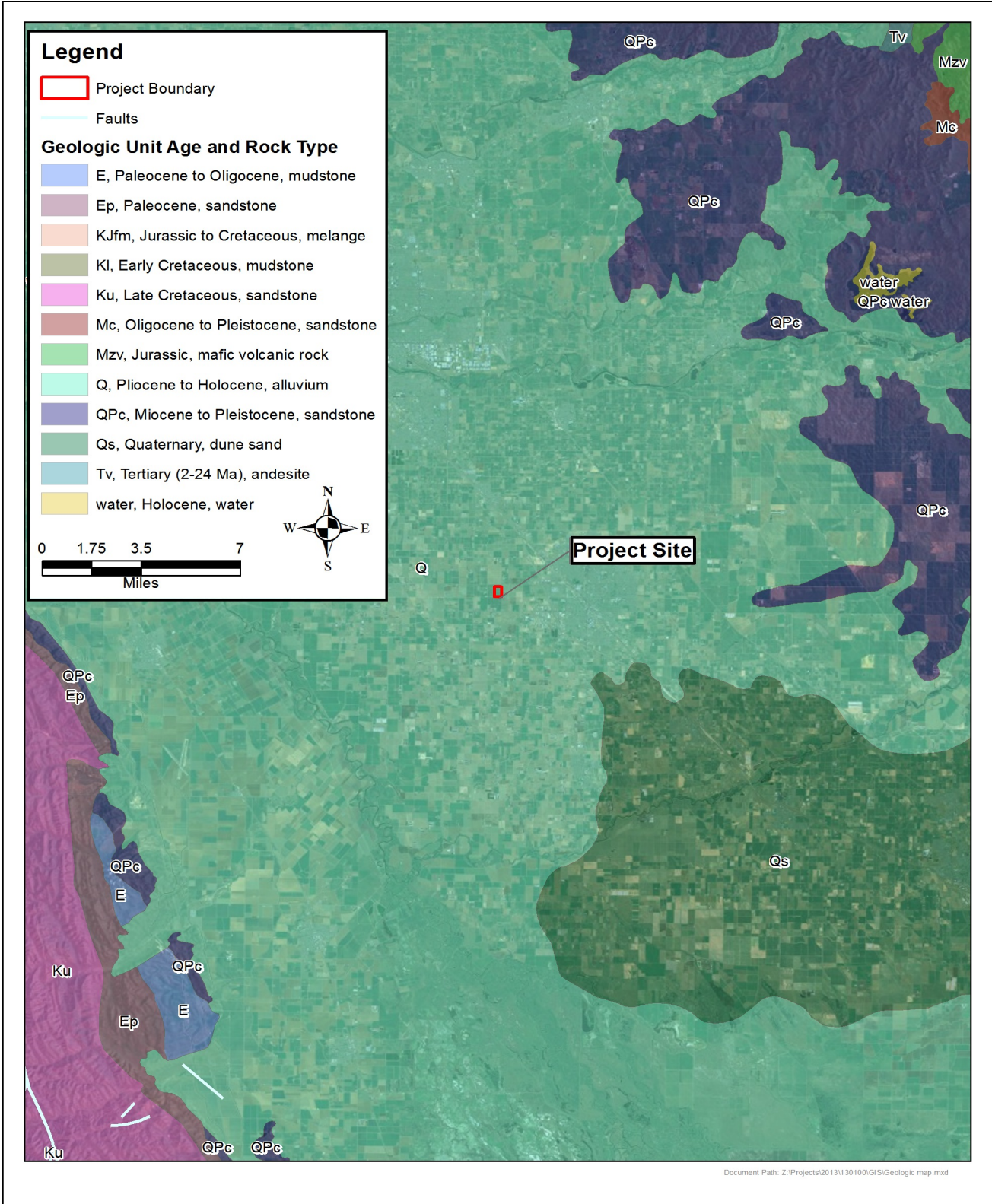
The project site is underlain by Quaternary alluvium derived from the Sierra Nevada. In contrast to the relatively narrow strip of Quaternary alluvium derived from the Coast Ranges, the central and northeastern parts of the county are widely covered by broad alluvial fan, channel, and terrace deposits derived largely from the Sierra Nevada (Marchand and Allwardt; 1981). From oldest to youngest, the components of this unit include the Turlock Lake Formation, Riverbank Formation, Modesto Formation, and post Modesto (Holocene) alluvium.

This unit is mainly arkosic in composition, which reflects the granitic and metamorphic source rocks in the Sierra Nevada to the east. Most sediments were deposited by the present and ancestral Stanislaus and Tuolumne rivers, which provided long transport distances through a terrain of hard basement rocks. This transport allowed for thorough reworking and sorting of the sediments such that they are cleaner and more well-rounded than the alluvial deposits associated with the Coast Ranges. Secondary drainages, such as Dry Creek and those north of Woodward Reservoir, commonly have sediments that are locally derived, such as from metamorphic and Tertiary volcanic rocks (California Department of Conservation, Division of Mines and Geology 1993). Figures 3.6-1 and 3.6-2 provide a topographic map and a geology map of the regional area which includes the proposed project site.



TOPOGRAPHIC MAP

Figure 3.6-1



GEOLOGY MAP

Figure 3.6 - 2

FAULTS

Faults form in rocks when stresses overcome the internal strength of the rock, resulting in a fracture. Large faults develop in response to large regional stresses operating over a long time, such as those stresses caused by the relative displacement between tectonic plates. According to the elastic rebound theory, these stresses build up in the earth's crust until enough stress has built up to exceed the strength along a fault and cause a brittle failure. The rapid slip between the two stuck plates or coherent blocks generates an earthquake. Following an earthquake, stress will build once again until the occurrence of another earthquake. The magnitude of slip is related to the maximum allowable stress that can be built up along a particular fault segment. The greatest buildup in stress due to the largest relative motion between tectonic plates or fault blocks over the longest period will generally produce the largest earthquakes. The distribution of these earthquakes is a study of much interest for both hazard prediction and the study of active deformation of the earth's crust. Deformation is a complex process and strain caused by tectonic forces is not only accommodated through faulting, but also by folding, uplift, and subsidence, which can be gradual or in direct response to earthquakes.

Faults are mapped to determine earthquake hazards, since they occur where earthquakes tend to recur. A historic plane of weakness is more likely to fail under stress than a previously unbroken block of crust. Faults are, therefore, a prime indicator of past seismic activity, and faults with recent activity are presumed to be the best candidates for future earthquakes. However, since slip is not always accommodated by faults that intersect the surface along traces, and since the orientation of stress and strain in the crust can shift, predicting the location of future earthquakes is complicated. Earthquakes sometimes occur in areas with previously undetected faults or along faults previously thought inactive.

According to the Stanislaus County General Plan Safety Element, there are several faults known to exist within the county. Information and history on these faults comes from the County's General Plan Safety Element that provides the following information:

In the extreme eastern part of the County, the Bear Mountain and Melones faults are found, though believed to have been inactive for the past 150 million years. No faults are currently known to exist within the valley portion of the County. Within the Diablo Range, the most recent movements were along the Tesla-Ortgalita fault approximately five million years ago, although earthquake activity without surface fracturing or faulting is still common. Since 1930, one earthquake activity without surface fracturing or faulting is still common. Since 1930, one earthquake epicenter of a magnitude greater than 4.0 on the Richter Scale was recorded in Stanislaus County. On June 27, 1986, an earthquake with a magnitude of 3.7 on the Richter Scale occurred with an epicenter several miles west of crows Landing. Future earthquakes of similar or greater magnitudes can be expected. Figure 3.6-2 indicates the location of known faults in Stanislaus County.

The State of California Division of Mines and Geology has published proposed maps of an area to be included in an Alquist-Priolo Special Studies Zone. The area is along the Ortgalita Fault in the Diablo Range and extends into Stanislaus County approximately 7 miles. The zone is 1000 feet wide centered on the identified fault. As an Alquist-Priolo Special Study

Zone, development and parcel divisions cannot be approved on land within this zone unless a geological report is completed at the effective on July1, 1986. The text of the Alquist-Priolo Special Studies Zones Act can be found in Section 660 et. seq. of Article 3, Chapter 2, Division 1 of the California Public Resources Code. Guidelines for implementation of the Act are found in Section 3500, Article 3, Subchapter1, Chapter 8, Division 2, Title 14 of the California Administrative Code.

The State of California Division of Mines and Geology has published proposed maps of an area to be included in an Alquist-Priolo Special Studies Zone. The area is along the Ortigalita Fault in the Diablo Range and extends into Stanislaus County approximately 7 miles. The zone is 1000 feet wide centered on the identified fault. As an Alquist-Priolo Special Study Zone, development and parcel divisions cannot be approved on land within this zone unless a geological report is completed at the applicant's expense and reviewed by another geologist hired by the County.

There are no known major or active faults crossing the site or in close proximity to the site. The nearest known active regional fault is the Ortigalita Fault, located west of Gustine, California and approximately 30.5 miles from the proposed project site (State of California, Department of Conservation 2007).

SEISMIC HAZARDS

Seismic hazards pose a substantial danger to property and human safety and are present because of the risk of naturally occurring geologic events and processes affecting human development. Therefore, the hazard risk is equally influenced by the condition and location of human development as by the frequency and distribution of major geologic events. Seismic hazards present in California include ground rupture along faults, strong seismic shaking, liquefaction, ground failure, and slope failure.

FAULT RUPTURE

Fault rupture is a seismic hazard that affects structures sited above an active fault. The hazard from fault rupture is the movement of the ground surface along a fault during an earthquake. Typically, this movement takes place during the short time of an earthquake, but it also can occur slowly over many years in a process known as creep. Most structures and underground utilities cannot accommodate the surface displacements of several inches to several feet commonly associated with fault rupture or creep.

GROUND SHAKING

The severity of ground shaking depends on several variables such as earthquake magnitude, epicenter distance, local geology, thickness, and seismic wave-propagation properties of unconsolidated materials, groundwater conditions, and topographic setting. Ground shaking hazards are most pronounced in areas near faults or with unconsolidated alluvium.

The most common type of damage from ground shaking is structural damage to buildings, which can range from cosmetic cracks to total collapse. The overall level of structural damage from a nearby large earthquake would likely be moderate to heavy, depending on the characteristics of the earthquake, the type of ground, and the condition of the building. Besides damage to buildings, strong ground shaking can cause severe damage from falling objects or broken utility lines. Fire and explosions are also hazards associated with strong ground shaking.

While Richter magnitude provides a useful measure of comparison between earthquakes, the moment magnitude is more widely used for scientific comparison, since it accounts for the actual energy released by the earthquake. Actual damage is due to the propagation of seismic or ground waves as a result of the earthquake and the intensity of shaking are related to earthquake magnitude and distance as well as to the condition of underlying materials. Loose and soft materials tend to amplify long period vibrations, while hard rock can quickly attenuate them, causing little damage to overlying structures. For this reason, the Modified Mercalli Intensity (MMI) Scale provides a useful qualitative assessment of ground shaking. The MMI Scale is a 12-point scale of earthquake intensity that is based on local effects experienced by people, structures, and earth materials. Each succeeding step on the scale describes a progressively greater amount of damage at a given point of observation. The MMI Scale is shown in Table 3.6-1, along with relative ground velocity and acceleration.

According to the Stanislaus County General Plan Safety Element, the eastern half of the County can be expected to have shaking to an intensity of VI or VII, producing minor to moderate damage. The western half of the County can expect to receive shaking to an intensity of VII or VIII Mercalli which can cause considerable damage to ordinary structures. The area around the City of Newman may have shaking intensity of IX or X. This may be considered a major hazard area as shown in Table 3.6-1.

GROUND FAILURE

Ground failure includes liquefaction and the liquefaction-induced phenomena of lateral spreading and lurching.

Liquefaction is a process by which sediments below the water table temporarily lose strength during an earthquake and behave as a viscous liquid rather than a solid. Liquefaction is restricted to certain geologic and hydrologic environments, primarily recently deposited sand and silt in areas with high groundwater levels. The process of liquefaction involves seismic waves passing through saturated granular layers, distorting the granular structure and causing the particles to collapse. This causes the granular layer to behave temporarily as a viscous liquid rather than a solid, resulting in liquefaction. Some soils are more susceptible than others, such as loose, sandy soil or those located at or below sea level.

Soil beneath a structure can lose strength due to liquefaction, which may result in the loss of foundation-bearing capacity, which could cause a structure to settle or tip. Liquefaction can also result in the settlement of large areas due to the densification of the liquefied deposit. Where structures are located within liquefied deposits, the liquefaction can result in the structure to rise as a result of buoyancy.

**Table 3.6-1
Modified Mercalli Intensity Scale**

Richter Magnitude	Modified Mercalli Intensity	Effects	Average Peak Ground Velocity (centimeters/seconds)	Average Peak Acceleration
0.1–0.9	I	Not felt. Marginal and long-period effects of large earthquakes.	—	—
1.0–2.9	II	Felt by only a few persons at rest, especially on upper floors of building. Delicately suspended objects may swing.	—	—
3.0–3.9	III	Felt quite noticeably in doors, especially on upper floors of building, but many people do not recognize it as an earthquake. Standing cars may rock slightly. Vibration like passing a truck. Duration estimated.	—	0.0035–0.007 g
4.0–4.5	IV	During the day, felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make creaking sound. Sensations like heavy truck striking building. Standing cars rocked noticeably.	1–3	0.015–0.035 g
4.6–4.9	V	Felt by nearly everyone, many awakened. Some dishes, windows, broken; cracked plaster in a few places; unstable objects overturned. Disturbances of trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop.	3–7	0.035–0.07 g
5.0–5.5	VI	Felt by all, many frightened and run outdoors. Some heavy furniture moved; a few instances of falling plaster and damaged chimneys. Damage slight.	7–20	0.07–0.15 g
5.6–6.4	VII	Everyone runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well built, ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving cars.	20–60	0.15–0.35 g
6.5–6.9	VIII	Damage slight in specially designed structures; considerable in ordinary substantial buildings with partial collapse; great in poorly built structures. Panel walls thrown out of frame	60–200	0.35–0.7 g

Richter Magnitude	Modified Mercalli Intensity	Effects	Average Peak Ground Velocity (centimeters/seconds)	Average Peak Acceleration
		structures. Fall of chimneys, factory stacks, columns, monument walls, and heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving in cars disturbed.		
7.0–7.4	IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.	200–500	0.7–1.2 g
7.5–7.9	X	Some well-built structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Railway lines bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed, slopped over banks.	≥ 500	>1.2 g
8.0–8.4	XI	Few, if any masonry structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.	—	—
≥ 8.5	XII	Total damage. Waves seen on ground. Lines of sight and level distorted. Objects thrown into the air.	—	—

Source: United States Geologic Survey, 1989.

Lateral spreading is lateral ground movement, with some vertical component, as a result of liquefaction. In effect, the soil rides on top of the liquefied layer. Lateral spreading can occur on relatively flat sites with slopes less than 2 percent, under certain circumstances, and can cause ground cracking and settlement.

Lurching is the movement of the ground surface toward an open face when the soil liquefies. An open face could be a graded slope, stream bank, canal face, gully, or other similar feature.

LANDSLIDES AND SLOPE FAILURE

Landslides and other slope failures form in response to the long-term geologic cycle of uplift, mass wasting, and slope disturbance. Mass wasting refers to a variety of erosional processes from gradual downhill soil creep to mudslides, debris flows, landslides, and rock fall. These

processes are commonly triggered by intense precipitation. Seismic activity can also trigger landslides and rockfalls.

Often, various forms of mass wasting are grouped together as landslides, which are generally used to describe the downhill movement of rock and soil. Geologists classify landslides into several different types that reflect differences in the type of material and type of movement. The four most common types of landslides are translational, rotational, earth flow, and rock fall. Debris flows and earth flows are another type of landslide that are characterized by soil and rock particles in suspension with water and which often move with considerable speed. Debris flows often refer to flows that contain coarser soil and rock materials while earth flows frequently refer to slides that are predominantly finer materials. Mudslide is a term that appears in non-technical literature to describe a variety of shallow, rapidly moving earth flows.

Project Site Conditions

SOILS

As seismic waves travel through the ground, they travel faster through hard rock than soft soil. As a result, when the waves move from hard rock to soft soil, the amplitude (largeness) of the waves needs to increase to be able to carry the same amount of energy, creating stronger shaking. This same principle accounts for the site effects of sediment thickness. The deeper the sediment above bedrock, the more soft soil there is for seismic waves to travel through, therefore creating stronger amplifications.

The National Earthquake Hazards Reduction Program (NEHRP) has defined six different soil and rock types based on their shear-wave velocity, in order to determine amplification effects:

- Type A, hard rock (igneous rock);
- Type B, rock (volcanic rock);
- Type C, very dense soil and soft rock (sandstone);
- Type D, stiff soil (mud);
- Type E, soft soil (artificial fill); and
- Type F, soils requiring site-specific evaluations.

Type A has the least amplification and Type E the most.

SEISMIC HAZARDS

As stipulated in the Stanislaus County General Plan Safety Element, new buildings in Stanislaus County are constructed to prevent loss of life as a result of an earthquake. Older buildings, however, especially unreinforced masonry buildings, could collapse causing injury and loss of life. According to a report in 1979 to the California Seismic Safety Committee, a building should be considered hazardous to life in the event of an earthquake if the building:

- A. Was constructed prior to the adoption and enforcement of local building codes requiring the earthquake resistant design of buildings;

- B. Is constructed of unreinforced masonry;
- C. Lacks an effective system for resisting lateral forces; and
- D. Exhibits any one of the following characteristics:
 1. Has exterior parapets and ornamentation that may fall on a public way;
 2. Is constructed of unreinforced masonry;
 3. Has exterior walls of unreinforced masonry that are not anchored to the floors or roof;
 4. Has sheathing or roofs that is not capable of withstanding lateral loads or uniformly transferring horizontal loads to walls; or
 5. Has large openings in walls that may result in damage due to torsional (twisting) forces.

In order to eliminate these problems, it is necessary to require reconstruction to at least provide for the adequacy of: (a) unreinforced masonry bearing walls, (b) the anchorage of exterior parapets and ornamentation, (c) the anchorage of unreinforced bearing walls to the floors and roof, (d) floor and roof diaphragms, and (e) the development of a complete bracing system to resist horizontal wind and earthquake forces.

3.6.3 IMPACT EVALUATION CRITERIA

Analysis Methodology

Methodology for geology and soils relied on a search of government sites to determine whether seismic, soils, or geological features exist in and around the proposed project site. The Department of Conservation's online maps and other State and local resources provided additional information which was referred to determine whether the proposed project would result in significant impacts.

Thresholds of Significance

According to Section 15064.5 of the CEQA Guidelines, a project will normally have significant adverse impacts associated with geology and soils if the project would:

- a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:*
 - i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42.*
 - ii) *Strong seismic ground shaking.*
 - iii) *Seismic-related ground failure, including liquefaction.*
 - iv) *Landslides*
- b) *Result in substantial soil erosion or the loss of topsoil.*

- c) *Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.*
- d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.*
- e) *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.*

Using the methodology described before, an analysis will be completed to determine whether the proposed project would exceed the thresholds of significance for geology and soils.

3.6.4 IMPACTS AND MITIGATION MEASURES

Impact #3.6-1 – Exposure of people and structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, ground failure, or landslides.

Impact #3.6-3 – Result in potential hazards due to construction on unstable soils.

Fault Rupture

The project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone. There are no known major or active faults crossing the site or in close proximity to the site. The nearest known active regional fault is the Ortigalita Fault, located west of Gustine, California and approximately 30.5 miles from the proposed project site (State of California, Department of Conservation 2007). Construction of the warehouse and road improvements would have to comply with Stanislaus County and the City of Turlock’s building and road improvement regulations. Both the County and City’s regulations are based on State codes which have strict building standards in earthquake prone areas.

Strong Ground Shaking

The California Geological Survey’s “Earthquake Shaking Potential for California, 2008” includes expected relative intensity of ground shaking and damage in California from anticipated future earthquakes. The shaking potential is calculated as the level of ground motion that has a 2% chance of being exceeded in 50 years, which is the same as the level of ground-shaking with about a 2500 year average repeat time. Conditions for each classification include:

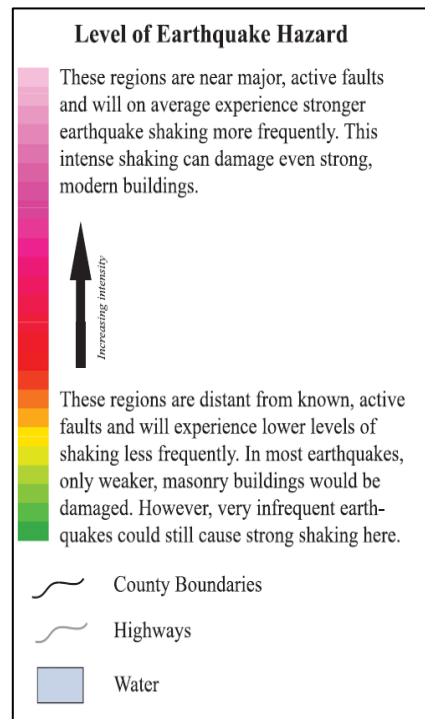


Illustration 1: Frequency Shaking Potential

- Low frequency shaking potential: Earthquake shaking at 1.0 second period affects tall, relatively flexible buildings and correlates well with overall earthquake damage. Local soil conditions have greater effect on low frequency shaking, so this map shows more influence of the surface geologic materials map; and
- High frequency shaking potential: Earthquake shaking at 0.2 second period affects short, stiff structures and is also used in estimating future earthquake damage. Local soil conditions have less effect on high frequency shaking, so this map shows less influence of the surface geologic materials map.

According to the “Earthquake Shaking Potential for California, 2008” map, the area in and around Turlock has a low frequency shaking potential which falls in the yellow range. Illustration 1 includes the scale (Branum et al. 2008). As mentioned above, all construction would have to comply with Stanislaus County and the City of Turlock’s building and road improvement regulations.

Seismic Related Ground Failure (including Liquefaction)

Soil beneath a structure can lose strength due to liquefaction, which may result in the loss of foundation-bearing capacity causing a structure to settle or tip. Liquefaction can also result in the settlement of large areas due to the densification of the liquefied deposit. Where structures are located within liquefied deposits, the liquefaction can result in the structure to rise as a result of buoyancy.

The closest fault to the proposed project site is over 30.5 miles away. According to the report on the site’s soils, depth to the water table is more than 80 inches (U.S. Department of Agriculture, Natural Resources Conservation Service. 2013). The potential for seismic related ground failure (liquefaction, lateral spreading, and lurching) occurring on the project site is therefore minimal due to the absence of high groundwater levels, saturated loose granular soils, and distant to the nearest earthquake.

Landsliding

There are no substantial slopes on or near the project site. Therefore, the opportunity for slope failure in response to the long-term geologic cycle of uplift, mass wasting, and difference of slopes is unlikely.

Conclusion: The potential seismic-related impacts as a result of the project are *less than significant*.

Mitigation Measures: No mitigation is necessary.

Impact #3.6-2 – Result in substantial soil erosion or the loss of topsoil.

Impact #3.6-4 – Result in potential hazards due to construction on expansive soils.

Information from the U.S. Department of Agriculture, Natural Resources Conservation Service’s (NRCS) Web Soil Survey was reviewed to identify soil types present on the proposed project site. According to the NRCS, soil information for Stanislaus County is from the most current data. The Soil Survey identified three soil types. Each soil’s properties are summarized in Table 3.6-2.

**Table 3.6-2
Soil Descriptions for the Project Site**

Soil Type	Map Symbol	Hydrologic Rating	Drainage Class	Erosion Kf Factor	Percent Clay/Silt/Sand	Approximate Area (acres)
Dinuba sandy loam, 0-1 percent slope	DrA	C	Moderately well drained	0.20	11/23/66	25
Dinuba sandy loam, deep, 0-1 percent slope	DtA	A	Well drained	0.20	11/23/66	32
Hanford sandy loam, 8-15 percent slope	HdC	A	Well drained	0.17	13/20/68	10.1

Source: United States Department of Agriculture, Natural Resources Conservation Service, 2013.

Notes: Hydrologic Rating A-soils with low runoff potential. Soils having high infiltration rates even when thoroughly wetted and consisting chiefly of deep well drained to excessively well-drained sands or gravels.

Hydrologic Rating C - Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

K-Factor = Measurement of soil erodibility: values less than 0.25 indicate low erosion potential; values of 0.25 to 0.40 indicate moderate erosion potential; values ranging from 0.40 to 0.69 indicate high erosion potential.

According to Table 3.6-2, roughly 32 acres of the project site is underlain by soils classified as Dinuba sandy loam, deep. This type of soil has a hydrologic rating of A which results in low runoff potential and a high infiltration rate when thoroughly wetted. Dinuba sandy loam classified soils cover approximately 25 acres of the proposed project site. These soils have a hydrologic rating of C which results in slow infiltration rate when thoroughly wet. Hanford sandy loam covers 10.1 percent of the site. The hydrologic rating for this soil type is also A. The Kf factor for all soil types has a low erosion potential (U.S. Department of Agriculture, Natural Resources Conservation Service 2013).

Construction activities associated with the proposed project would involve grading for the warehouse and improvements along Washington Street. These activities could expose barren soils to sources of wind or water, resulting in the potential for erosion and sedimentation on and off the project site. Soil erosion or loss of topsoil may occur in areas where soil is disturbed. However, all earth moving activities would be required to follow Stanislaus County and City of Turlock regulations for earth moving activities.

Conclusion: Development of the proposed project will not create substantial soil erosion or loss of topsoil as the proposed project would have to comply with all applicable regulations. Therefore, potential impacts will be *less than significant*.

Mitigation Measures: No mitigation measures are required.

Impact #3.6-5 – Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

No domestic water or wastewater services are proposed. All water would be obtained on site and disposed of on site. Water for processing of produce and other uses (e.g., employee sinks and toilets) would be obtained from private wells on the site. The well will require testing to ensure that it meets standards. A septic leach field system would be used to dispose of wastewater from employee sinks and toilets.

Conclusion: A *less than significant* impact would occur.

Mitigation Measures: No mitigation measures are required.

3.7 Greenhouse Gases

This section provides an evaluation of the potential greenhouse gas impacts that would be caused by implementation of the proposed project. The discussion starts with an overview of regulation that is normally applicable to the greenhouse gas environmental factor, followed by a description of the physical setting of both the site and surrounding lands. An analysis is then provided to determine whether the impact(s) would be less than significant, significant without mitigation, or significant and unavoidable. If an impact is significant and can be reduced with mitigation, then a description of the mitigation measure(s) is provided. This section is based on the Air Quality and Greenhouse Gas Report, dated January 2013, prepared by Quad Knopf (Appendix B).

3.7.1 REGULATORY SETTING

Greenhouse Gas (GHG) pollutants are regulated at the national, State, and air basin level; each agency has a different degree of control. The United States Environmental Protection Agency (EPA) regulates at the federal level. The California Air Resources Board (ARB) regulates at the State level and SJVAPCD regulates at the air basin level.

International

Natural processes and human activities emit GHGs. The presence of GHGs in the atmosphere affects the earth's temperature. Without the natural heat trapping effect of GHG, the earth's surface would be about 34°C cooler (Climate Action Team 2006). As such, climate change is a global issue involving all of the world's population. Therefore, countries such as those discussed below have made an effort to reduce GHGs.

Intergovernmental Panel on Climate Change: In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations Framework Convention on Climate Change (Convention): On March 21, 1994, the United States joined a number of countries around the world in signing the Convention. Under the Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

Kyoto Protocol: The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing greenhouse gas emissions at average of 5 percent against 1990 levels over the five-year period 2008-2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed

more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of “common but differentiated responsibilities.”

The United States has not approved implementation of the Kyoto Protocol. Other countries that have include: Australia, Canada, China, the European Union (Belgium, Denmark, Germany, the Hellenic Republic, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal, Finland, Sweden, Great Britain, and Northern Ireland), Japan, Mexico, and New Zealand.

Federal

Presented below is case law and findings as heard before the U.S. Supreme Court relating to GHGs and the CAA. A listing of federal regulations pertaining to GHG pollutants then follows.

Greenhouse Gas Endangerment: *Massachusetts v. EPA* (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which it was petitioned that the EPA regulate four GHGs, including carbon dioxide, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court found that GHGs are air pollutants covered by the Clean Air Act. The Court held that the Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the Clean Air Act:

- *Endangerment Finding*: The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride in the atmosphere threaten the public health and welfare of current and future generations; and
- *Cause or Contribute Finding*: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section “Clean Vehicles” below.

The EPA denied ten petitions for Reconsideration of the Endangerment and Cause or Contribute Findings in 2010. Some of the petitioners included the Ohio Coal Association, Peabody Energy Company, and the State of Texas.

In September 2011, the EPA Office of Inspector General evaluated the EPA’s compliance with established policy and procedures in the development of the endangerment finding, including processes for ensuring information quality. The evaluation concluded that the technical support document should have had more rigorous EPA peer review.

In June 2012, a federal appeals court rejected a lawsuit by fifteen states against the EPA. The suit alleged that the EPA violated the law by relying almost exclusively on data from the United Nations Intergovernmental Panel on Climate Change rather than doing its own research or testing data according to federal standards. The states include Virginia, Texas, Alabama, Florida, Hawaii, Indiana, Kentucky, Louisiana, Mississippi, Nebraska, North Dakota, Oklahoma, South Carolina, South Dakota, and Utah. Virginia intends to petition the Supreme Court to review the case.

Clean Vehicles: Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards would cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). The EPA and the National Highway Safety Administration are working on a second-phase joint rulemaking to establish national standards for light-duty vehicles for model years 2017 and beyond.

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and 15 percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the agencies are proposing engine and vehicle standards starting in the 2014 model year, which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by the 2018 model year.

Mandatory Reporting of GHGs: The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory greenhouse gas reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule. The rule requires reporting of greenhouse gas emissions from large sources and suppliers in the United States, and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial greenhouse gases,

manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of greenhouse gas emissions are required to submit annual reports to the EPA.

New Source Review: The EPA issued a final rule on May 13, 2010 that establishes thresholds for greenhouse gases that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule “tailors” the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the federal code of regulations, EPA states:

This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the Clean Air Act, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. The EPA is relieving these resource burdens by phasing in the applicability of these programs to greenhouse gas sources, starting with the largest greenhouse gas emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources, but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for greenhouse gas emissions until at least April 30, 2016.

The EPA estimates that facilities responsible for nearly 70 percent of the national greenhouse gas emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation’s largest greenhouse gas emitters—power plants, refineries, and cement production facilities.

Standards of Performance for GHG Emissions for New Stationary Sources: Electric Utility Generating Units: As required by a settlement agreement, the EPA proposed new performance standards for emissions of carbon dioxide for new affected fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatt would be required to meet an output-based standard of 1,000 pounds of carbon dioxide per megawatt-hour, based on the performance of widely used natural gas combined cycle technology.

Cap and Trade: Cap and trade refers to a policy tool where emissions are limited to a certain amount and can be traded, or provides flexibility on how the emitter can comply. Successful examples in the United States include the Acid Rain Program and the NO_x Budget Trading Program in the northeast. There is no federal cap and trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap and trade.

Regional GHG Initiative: An effort to reduce greenhouse gases among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps carbon dioxide emissions from power plants, auctions carbon dioxide emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008.

Western Climate Initiative partner: Jurisdictions have developed a comprehensive initiative to reduce regional greenhouse gas emissions to 15 percent below 2005 levels by 2020. The partners are California, British Columbia, Manitoba, Ontario, and Quebec. Its cap-and-trade program is anticipated to be fully implemented in 2015.

State

There has been significant legislative and regulatory activity that affects climate change and GHG in California, as discussed below.

Title 24: Although not originally intended to reduce greenhouse gases, California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. The 2008 standards became effective January 1, 2010. The requirement for when the 2008 standards must be followed is dependent on when the application for the building permit is submitted. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

California Green Building Standards: On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which went into effect on January 1, 2011. The Code is a comprehensive and uniform regulatory code for all residential, commercial and K-14 school buildings.

The California Green Building Standards Code does not prevent a local jurisdiction from adopting a more stringent code as state law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50 percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard that buildings need to meet in order to be certified for occupancy. Enforcement is generally through the local building official.

The California Green Building Standards Code requires:

Water Efficiency and Conservation [Outdoor Water Use (4.304.1)]: Irrigation Controllers. Automatic irrigation system controllers for landscaping provided by the builder and installed at the time of final inspection shall comply with the following:

1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' watering needs as weather or soil conditions change; and

2. Weather-based controllers without integral rain sensors or communication systems that account for rainfall shall have a separate wired or wireless rain sensor, which connects or communicates with the controller(s).

Construction Waste Reduction of at least 50% (4.408.1): Recycle and/or salvage for reuse a minimum of 50% of the nonhazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4; OR meet a more stringent local construction and demolition waste management ordinance. Documentation is required per Section 4.408.5. Exceptions:

1. Excavated soil and land-clearing debris;
2. Alternate waste reduction methods developed by working with local enforcing agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite; and
3. The enforcing agency may make exceptions to the requirements of this section when jobsites are located in areas beyond the haul boundaries of the diversion facility.

Materials pollution control (4.504.1 – 4.504.6): Low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring and particleboard.

Installer and Special Inspector Qualifications (702.1-702.2): Mandatory special installer inspector qualifications for installation and inspection of energy systems (e.g., heat furnace, air conditioner, mechanical equipment).

Pavley Regulations: California AB 1493, enacted on July 22, 2002, required the ARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. The regulation was stalled by automaker lawsuits and by the EPA's denial of an implementation waiver. On January 21, 2009, the ARB requested that the EPA reconsider its previous waiver denial. On January 26, 2009, President Obama directed that the EPA assess whether the denial of the waiver was appropriate. On June 30, 2009, the EPA granted the waiver request, which begins with motor vehicles in the 2009 model year.

The standards phase in during the 2009 through 2016 model years. When fully phased in, the near term (2009-2012) standards will result in about a 22-percent reduction compared with the 2002 fleet, and the mid-term (2013-2016) standards will result in about a 30-percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

Executive Order S-3-05: California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for greenhouse gas emissions:

- By 2010, reduce greenhouse gas emissions to 2000 levels;
- By 2020, reduce greenhouse gas emissions to 1990 levels; and
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be an aggressive, but achievable, mid-term target. The Climate Action Team's Report to the Governor in 2006 contains recommendations and strategies to help ensure the 2020 targets in Executive Order S-3-05 are met.

Low Carbon Fuel Standard - Executive Order S-01-07: The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low-Carbon Fuel Standard and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, the ARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by California Energy Commission on December 24, 2007) and was submitted to ARB for consideration as an "early action" item under AB 32. The ARB adopted the Low Carbon Fuel Standard on April 23, 2009.

SB 1368: In 2006, the State Legislature adopted Senate Bill (SB) 1368, which was subsequently signed into law by the Governor. Senate Bill 1368 directs the California Public Utilities Commission to adopt a performance standard for greenhouse gas emissions for the future power purchases of California utilities. Senate Bill 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Because of the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California's energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out-of-state producers that cannot satisfy the performance standard for greenhouse gas emissions required by SB 1368.

SB 97: Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b)

On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the Office of Planning and Research pursuant to subdivision (a).” Section 21097 was also added to the Public Resources Code.

On April 13, 2009, OPR submitted to the Secretary for Natural Resources its recommended amendments to the State California Environmental Quality Act (CEQA) Guidelines for addressing greenhouse gas emissions, as required by SB 97. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The CEQA Amendments became effective on March 18, 2010.

AB 32: The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. “Greenhouse gases” as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. ARB is the State agency charged with monitoring and regulating sources of GHG. AB 32 states the following:

- Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems;
- The ARB approved the 1990 GHG emissions level of 427 million metric tons of carbon dioxide equivalent (MMTCO₂e) on December 6, 2007 (California Air Resource Board 2007). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO₂e. Emissions in 2020 in a “Business as Usual” scenario are estimated to be 596 MMTCO₂e; and
- Under AB 32, the ARB published its Final Expanded List of Early Action Measures to Reduce GHG Emissions in California (California Air Resource Board 2007). The ARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of these early action measures, nine are considered discrete early action measures, as they are regulatory and enforceable as of January 1, 2010. The ARB estimates that the 44 recommendations are expected to result in reductions of at least 42 MMTCO₂e by 2020, representing approximately 25 percent of the 2020 target.

The ARB approved the Climate Change Scoping Plan in December 2008 (California Air Resource Board 2008). The Scoping Plan contains measures designed to reduce the State’s emissions to 1990 levels by the year 2020. The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the

measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewable energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California’s clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State’s long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between “capped” and “uncapped” strategies. “Capped” strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the cap-and-trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. “Uncapped” strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional GHG emission reductions.

SB 375: SB 375 was passed by the Senate on August 30, 2008 and was signed by the Governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40 percent of the total greenhouse gas emissions in California. SB 375 states, “Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32”. Senate Bill 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing greenhouse gas emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies. Concerning CEQA, SB 375, section 21159.28 states that CEQA findings determinations for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that the ARB accepts as achieving the greenhouse gas emission reduction targets;
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies); or
3. Incorporates the mitigation measures required by an applicable prior environmental document.

Executive Order S-13-08: Executive Order S-13-08 indicates that “climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources”. Pursuant to the requirements in the order, in December 2009, the California Natural Resources Agency released its 2009 California Climate Adaptation Strategy (California Natural Resources Agency 2009). The Strategy is the “...first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States.” Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

SB 1078, SB 107, and Executive Order S-14-08: On September 12, 2002, Governor Gray Davis signed a bill (SB 1078) requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020.

CEQA Guidelines Update: As required by SB 97, the Governor’s Office of Planning and Research prepared and transmitted recommended Amendments to the CEQA Guidelines for greenhouse gas emissions to the California Natural Resources Agency on April 13, 2009. After a public comment period, the Natural Resources Agency proposed revisions to the text of the Proposed Guidelines Amendments. The Natural Resources Agency provided additional public comment time on the revised text. The Natural Resources Agency adopted the CEQA Guidelines Amendments with minor, non-substantial changes.

The Natural Resources Agency transmitted the Adopted Amendments and the entire rulemaking file to the Office of Administrative Law on December 31, 2009. The Office of Administrative Law reviewed the Adopted Amendments and the Natural Resources Agency’s rulemaking file. The Adopted Amendments were filed with the Secretary of State, and became effective March 18, 2010.

The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of greenhouse gas emissions in draft CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing CEQA Guidelines to reference climate change.

A new section, CEQA Guidelines Section 15064.4, was added to assist agencies in determining the significance of greenhouse gas emissions. The new section allows agencies the discretion to determine whether a quantitative or qualitative analysis is best for a particular project. Importantly, however, little guidance is offered on the crucial next step in this assessment process—how to determine whether the project’s estimated greenhouse gas emissions are significant or cumulatively considerable.

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions in an EIR when a project’s incremental contribution of emissions may be cumulatively considerable, however it does not answer the question of when emissions are cumulatively considerable.

Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support a determination that a project’s cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

In addition, the amendments revised Appendix F of the CEQA Guidelines, which focuses on Energy Conservation, and Appendix G, which includes the sample Environmental Checklist Form. The Checklist was also amended to include GHG questions, as identified in the Threshold section of this document.

Regional

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

The project is within the San Joaquin Valley Air Basin, which is under the jurisdiction of the SJVAPCD. Currently, the agency has several rules and plans in place that help to guide and reduce impacts from GHG emissions.

Climate Change Action Plan

On August 21, 2008, the SJVAPCD Governing Board approved a proposal called the Climate Change Action Plan (CCAP), to begin a public process to bring together stakeholders, land use agencies, environmental groups, and business groups, and conduct public workshops to develop comprehensive policies for CEQA guidelines and a carbon exchange bank, and voluntary GHG emissions mitigation agreements for the Governing Board’s consideration. The Climate Change Action Plan contained the following goals and actions:

Goals:

1. Assist local land-use agencies with CEQA issues relative to projects with greenhouse gas emissions increases.

2. Assist Valley businesses in complying with mandates of AB 32 (California Air Resource Board 2006).
3. Ensure that climate protection measures do not cause increases in toxic or criteria pollutants that adversely impact public health or environmental justice communities.

Actions:

1. Authorize the Air Pollution Control Officer to develop greenhouse gas significance threshold(s) or other mechanisms to address CEQA projects with greenhouse gas emissions increases. Begin the requisite public process, including public workshops, and develop recommendations for Governing Board consideration in the spring of 2009.
2. Authorize the Air Pollution Control Officer to develop necessary regulations and instruments for establishment and administration of the San Joaquin Valley Carbon Exchange Bank for voluntary greenhouse gas reductions created in the Valley. Begin the requisite public process, including public workshops, and develop recommendations for Governing Board consideration in spring 2009.
3. Authorize the Air Pollution Control Officer to enhance the SJVAPCD's existing criteria pollutant emissions inventory reporting system to allow businesses subject to AB 32 emission reporting requirements to submit simultaneous streamlined reports to the SJVAPCD and the state of California with minimal duplication.
4. Authorize the Air Pollution Control Officer to develop and administer voluntary greenhouse gas emission reduction agreements to mitigate proposed greenhouse gas increases from new projects.

Direct the Air Pollution Control Officer to support climate protection measures that reduce greenhouse gas emissions as well as toxic and criteria pollutants. Oppose measures that result in a significant increase in toxic or criteria pollutant emissions in already impacted areas.

SJVAPCD CEQA Greenhouse Gas Guidance

On December 17, 2009, the SJVAPCD Governing Board adopted: "Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA" and the policy: "District Policy - Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency". The SJVAPCD concluded that the existing science is inadequate to support quantification of the impacts that project-specific GHG emissions have on global climatic change. The SJVAPCD found the effects of project-specific emissions to be cumulative, and without mitigation, that their incremental contribution to global climatic change could be considered cumulatively considerable. The SJVAPCD found that this cumulative impact is best addressed by requiring all projects to reduce their GHG emissions, whether through project design elements or mitigation.

The SJVAPCD's approach is intended to streamline the process of determining if project specific GHG emissions would have a significant effect. Projects exempt from the requirements of CEQA, and projects complying with an approved plan or mitigation program would be determined to have a less than significant cumulative impact. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources and have a certified Final CEQA document.

Best Performance Standards (BPSs) would be established according to performance-based determinations. Projects complying with any SJVAPCD-adopted Best Performance Standards are not to require specific quantification of GHG emissions and thus would be determined to have a less than significant cumulative impact for GHG emissions. Projects not complying with BPSs thus require quantification of GHG emissions and demonstration that GHG emissions have been reduced or mitigated by 29 percent, as targeted by ARB's AB 32 Scoping Plan to be considered to have a less than significant impact on climate change. Furthermore, quantification of GHG emissions are then required for all projects for which the lead agency has determined that an Environmental Impact Report is required, regardless of whether the project incorporates Best Performance Standards.

San Joaquin Valley Carbon Exchange

The SJVAPCD initiated work on the San Joaquin Valley Carbon Exchange in November 2008. The purpose of the carbon exchange is to quantify, verify, and track voluntary GHG emissions reductions generated within the San Joaquin Valley. To investigate the various issues concerning the development of a mechanism to register GHG emission reductions, the SJVAPCD formed a technical workgroup consisting of SJVAPCD staff, land use agency representatives, industry representatives, agricultural representatives, environmental group representatives, and other interested parties.

According to the SJVAPCD, the differences between the AB 32 cap-and-trade program and a GHG emission reduction registration program is, "A GHG cap and trade program is a method to reduce actual GHG emissions by operating under a declining GHG cap, whereas GHG banking is a method to preserve GHG emission reductions that are in excess of any GHG emission reduction requirement, including a cap and trade program" (San Joaquin Valley Air Pollution Control District 2009).

Rule 2301

While the Climate Change Action Plan indicated that the greenhouse gas emission reduction program would be called the San Joaquin Valley Carbon Exchange, the SJVAPCD incorporated a method to register voluntary greenhouse gas emission reductions into its existing Rule 2301- Emission Reduction Credit Banking through amendments of the rule. Amendments to the rule were adopted on January 19, 2012. The purposes of the amendments to the rule include the following:

- Provide an administrative mechanism for sources to bank voluntary greenhouse gas emission reductions for later use;

- Provide an administrative mechanism for sources to transfer banked greenhouse gas emission reductions to others for any use; and
- Define eligibility standards, quantitative procedures, and administrative practices to ensure that banked greenhouse gas emission reductions are real, permanent, quantifiable, surplus, and enforceable.

STANISLAUS COUNCIL OF GOVERNMENTS (STANCOG)

The Stanislaus Council of Governments (StanCOG) is the Regional Transportation Planning Agency (RTPA) for the Stanislaus County region. Under federal legislation, it is also designated as the Metropolitan Planning Organization (MPO). Further overview of the agency and its programs and plans as related to criteria pollutants is provided in Section 3.3 Air Quality of this EIR.

Tentative 2014 Regional Transportation Plan and Sustainable Communities Strategy

As discussed previously, AB 375 requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing greenhouse gas emissions. Senate Bill 375 aims to reduce greenhouse gas emissions through development of a Sustainable Communities Strategy (SCS) which integrates land use, housing and transportation planning. A SCS will identify a forecasted development pattern and transportation network that will meet the emission reduction targets set by the ARB. The SCS will lay out a plan for growth for the region while taking into account the transportation, housing, environmental and economic needs of the area. Responses to a request for proposals to prepare the 2014 Regional Transportation Plan and Sustainable Communities Strategy were received on August 29, 2012. A Public Participation Plan was completed in January 2012 for the project (Stanislaus Council of Governments 2012).

2011 Regional Transportation Plan

The 2011 Regional Transportation Plan (RTP) is the blueprint used to address the many challenges facing the transportation system. This long range plan contains an integrated set of goals, objectives, and actions to maintain, manage, and improve the transportation system in Stanislaus County through the year 2035.

While the 2011 RTP does not have the opportunity to fully comply with SB 375 – as the GHG emission reduction targets had not yet been established at the time the RTP was adopted – StanCOG has incorporated the concepts from these groundbreaking processes and will continue to build on these concepts in subsequent RTP updates (Stanislaus Council of Governments 2011).

Currently, StanCOG is working with the public and other agencies in development of the 2014 RTP and SCS as discussed before.

StanCOG Non-Motorized Transportation Master Plan (2008)

In order to improve the bicycle and pedestrian network, StanCOG along with other governments and agencies, and the communities of Stanislaus County worked together in development of the Master Plan. “The Plan provides both a countywide understanding of existing conditions and countywide priority bicycle and pedestrian network as well as existing conditions analysis and recommended network for the unincorporated County and each of the nine Stanislaus County cities. The document structure reflects this: Each jurisdiction has a specific stand-alone chapter, which can then be adopted by local agencies”. The plan was developed to:

- Increase Bicycle and Pedestrian Access: Expand bicycle and pedestrian facilities and access in and between neighborhoods, employment centers, shopping areas, schools, and recreational sites, in pursuit of the goal of having 20% of all trips made by walking or biking by 2020;
- Increase Bicycle Use: Make the bicycle an integral part of daily life in Stanislaus County, particularly for trips of less than five miles, by implementing and maintaining a bikeway network, providing end-of-trip facilities, improving bicycle/transit integration, encouraging bicycle use, and making bicycling safer and more convenient; and
- Increase Pedestrian Activity: Encourage walking as a daily form of transportation in Stanislaus County by completing a pedestrian network that services short trips and transit, improving the quality of the pedestrian environment, improving the health of all citizens, and increasing safety, convenience and access opportunities for all users. (Stanislaus Council of Governments 2008).

The Draft 2013 StanCOG Non-Motorized Transportation Master Plan will replace the 2008 StanCOG Non-Motorized Transportation Master Plan.

Local

STANISLAUS COUNTY

General Plan

Pursuant to California Code Title 14, Section 65300 the 1994 Stanislaus County General Plan addresses greenhouse gases through its goals and policies for air quality in several of its Elements including the Conservation and Open Space Element, Agricultural Element, and its Circulation and Safety Elements. The plan also includes local, regional, State, and federal programs and regulations as well as a comprehensive set of guiding and implementing policies. These policies are listed below:

CON/SE: Policy Nineteen-The County will strive to accurately determine and fairly mitigate the local and regional air quality impacts of proposed projects;

CON/SE: Policy Twenty-The County shall strive to reduce motor vehicle emissions by reducing vehicle trips and vehicle miles traveled and increasing average vehicle ridership;

AGI: Policy 1.21- The County shall continue to work with local, state and federal agencies to ensure the safety of food produced in Stanislaus County and to maintain a local regulatory framework promoting environmental safety while ensuring the economic viability of agriculture;

AGI: Policy 3.1- The County shall continue to coordinate with the San Joaquin Valley Air Pollution Control District;

AGI: Policy 3.3- The County shall encourage the development and use of improved agricultural practices that improve air quality and are economically feasible;

CIR: Policy One- Development will be permitted only when facilities for circulation exist, or will exist as part of the development, to adequately handle increased traffic;

CIR: Policy Two- Circulation systems shall be designed and maintained to promote safety and minimize traffic congestion; and

SAF: Policy Six- All new development shall be designed to reduce safety and health hazards.

All the policies and one goal that are relevant to air quality also cover GHG emissions with the exception of an implementation measure under Policy twenty-one which was only applicable to PM10. This policy is not included.

CITY OF TURLOCK

Westside Industrial Specific Plan

As previously mentioned, the right-of-way of North Washington Street is in the Turlock city limits. The road is classified as an expressway in the Turlock General Plan. In addition to landscape screening for onsite parking areas, frontage improvements including curb, gutter, and sidewalk will be required along with a right turn lane into the project site. The proposed driveway would be aligned with the new traffic signal into the Blue Diamond facility on North Washington Road. All of these activities would generate pollution and be directly related to air quality issues which includes greenhouse gas emissions. Compliance with the Westside Industrial Specific Plan will include the following policies:

R-P 16: Cooperate with the San Joaquin Valley Air Pollution Control District (SJVAPCD) in its procedures to implement the Air Quality Management Plan (AQMP);

R-P 17: Minimize public exposure to toxic or hazardous air pollutants;

R-P 38: Construction equipment shall be equipped with particulate filters and/or catalysts, or proof shall be provided as to why it is infeasible;

R-P 39: Diesel engines shall be shut off while not in use to reduce emissions from idling. Minimize idling time of all other equipment to 10 minutes maximum; and

R-P 46: Use alternative fuel construction equipment, where feasible.

Chapters 5 and 3 of the WISP provide a detailed overview of the specific plan area including its infrastructure and services and land use objectives as related to greenhouse gas (City of Turlock 2006). The plan can be accessed at the City of Turlock's website using the following path:

<http://www.ci.turlock.ca.us/pdflink.asp?pdf=documents/developmentservices/planning/guidelines/WISP.pdf?o=o&title=Westside%20Industrial%20Specific%20Plan>.

3.7.2 PHYSICAL SETTING

Greenhouse Gas Emissions and Climate Change

Constituent gases of the earth's atmosphere called GHGs play a critical role in the earth's radiation budget by trapping infrared radiation emitted from the earth's surface, which would otherwise have escaped into space. This phenomenon, known as the "Greenhouse Effect," is responsible for maintaining a habitable climate. However, it is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations, leading to a trend of unnatural changes to the earth's natural climate, known as global warming or climate change.

Greenhouse gases are global pollutants, unlike ozone, carbon monoxide, particulate matter, and toxic air contaminants, which are pollutants of regional and local concern.

POTENTIAL ENVIRONMENTAL EFFECTS

The United Nations Intergovernmental Panel on Climate Change (IPCC) has declared that worldwide, average temperatures are likely to increase by approximately 3°F to 7°F by the end of the 21st century. However, a global temperature increase does not translate to a uniform increase in temperature in all locations on the earth. Regional climate changes are dependent on multiple variables, such as topography. One region of the earth may experience increased temperature, increased incidents of drought, and similar warming effects, whereas another region may experience a relative cooling. According to the IPCC's Working Group II Report website, climate change impacts to North America may include diminishing snowpack, increasing evaporation, exacerbated shoreline erosion, exacerbated inundation from sea level rising, increased risk and frequency of wildfire, increased risk of insect outbreaks, increased experiences of heat waves, and rearrangement of ecosystems, as species and ecosystem zones shift northward and to higher elevations.

In California, as discussed in a report prepared by the California Climate Change Center in 2006 and a report by Moser et al (2009), climate change may result in consequences such as the following:

- A reduction in the quality and supply of water to the State from the Sierra snowpack: If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. This can lead to challenges in securing adequate water supplies. It can also lead to a potential reduction in hydropower;
- Increased risk of large wildfires: If precipitation increases as temperatures rise, wildfires in the grasslands and chaparral ecosystems of southern California are expected to increase by approximately 30 percent toward the end of the century because more winter rain will stimulate the growth of more plant “fuel” available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation;
- Reductions in the quality and quantity of certain agricultural products: Crops that are likely to be hard hit include wine grapes, fruit, nuts, and milk;
- Exacerbation of air quality problems: If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today’s conditions. This is more than twice the increase expected if temperature rises are kept in the lower warming range;
- A rise in sea levels resulting in the displacement of coastal businesses and residences: During the past century, sea levels along California’s coast have risen about 7 inches. If heat-trapping emissions continue unabated and temperatures rise into the higher warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats;
- Damage to marine ecosystems and the natural environment;
- An increase in: infections, disease, asthma, heat stroke/exhaustion, heart attack, stroke, and other health-related problems; and
- A decrease in: the health and productivity of California’s forests.

Although certain environmental effects are widely accepted to be a potential hazard to certain locations, such as rising sea level for low-lying coastal areas, it is currently infeasible to predict all environmental effects of climate change on any one location.

GREENHOUSE GAS EMISSIONS INVENTORY AND TRENDS

In 2006, total worldwide greenhouse gas emissions were estimated by the United Nations Framework Convention on Climate Change to be 22,170 million metric tons of carbon dioxide equivalent (MMTCO_{2e}). Emissions in the U.S. were estimated to be 7,054.4 MMTCO_{2e}.

California is the second-largest contributor in the U.S. of GHGs and the sixteenth largest in the world. In 2009, California produced 456 MMTCO_{2e}. The largest source of GHGs in California is transportation, contributing 38 percent of the State's total greenhouse gas emissions. Electricity generation is the second-largest source, contributing 23 percent of the State's greenhouse gas emissions. The inventory for California's greenhouse gas emissions between 2003 and 2010 is presented in Table 3.7-1.

**Table 3.7-1
California Greenhouse Gas Emissions Inventory 2003-2010**

Main Sector*	Emissions MMTCO _{2e}							
	2003	2004	2005	2006	2007	2008	2009	2010
Agriculture	31.48	33.24	33.48	34.59	33.44	34.34	32.81	32.45
Forestry	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Commercial and Residential Fuel Use	41.47	42.83	41.18	41.85	42.07	42.39	42.61	43.89
Electricity Generation (Imports)	49.09	50.20	46.08	50.87	55.15	55.34	55.53	49.70
Electricity Generation (In State)	64.57	66.05	62.81	54.69	59.81	65.83	48.05	43.59
Industrial and Waste	95.29	96.97	96.04	94.29	91.88	94.32	83.60	85.96
Recycling and Waste	6.39	6.34	6.65	6.75	6.71	6.90	6.94	6.98
High GWP	12.57	13.32	13.90	14.26	14.27	14.44	14.76	15.66
Transportation	179.47	183.46	186.34	186.95	187.38	178.18	173.34	173.18
Total	480.52	492.6	486.67	484.44	490.9	491.93	457.83	451.6

Source: California Air Resources Board, 2011.

According to the results in Table 3.7-1, the transportation sector accounted for the largest majority of GHG emissions followed by industrial, electricity generation, and so on. The total for all sectors has rise and fall from 2003 to 2008, with a decline over the last two years (2009 to 2010).

GREENHOUSE GASES

Gases that trap heat in the atmosphere are GHGs. The effect is analogous to the way a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide, methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Natural processes and human activities emit GHGs. The presence of GHGs in the atmosphere affects the earth's temperature. Without the natural heat trapping effect of GHGs, the earth's surface would be about 34°C cooler. However, it is believed that emissions from

human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

An individual project cannot generate enough greenhouse gas emissions to effect a discernible change in global climate. However, the proposed project may participate in this potential impact by its incremental contribution combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on global climate change. Because these changes may have serious environmental consequences, this section will evaluate the potential for the proposed project to have a significant effect upon California’s environment as a result of its potential contribution to the enhanced greenhouse effect.

The global warming potential is one type of simplified index based upon radiative properties that can be used to estimate the potential future impacts of emissions of different gases upon the climate system in a relative sense. Global warming potential is based on a number of factors, including the radiative efficiency (heat-absorbing ability) of each gas relative to that of carbon dioxide, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years) relative to that of carbon dioxide.

The EPA defines global warming potential as the “cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas”, the reference gas in this case being CO₂.

The global warming potential of a gas is essentially a measurement of the greenhouse gas compared with the reference gas, carbon dioxide; carbon dioxide has a global warming potential of one. The GHGs of concern from the project are summarized in Table 3.7-2.

**Table 3.7-2
Greenhouse Gases**

Greenhouse Gas	Description and Physical Properties	Sources
Water vapor	Water vapor is the most abundant, important, and variable greenhouse gas. In the atmosphere, it maintains the climate necessary for life.	Sources include evaporation from the ocean and other water bodies, sublimation of ice and snow, and transpiration from plants.
Ozone (O ₃)	Ozone is a short-lived local greenhouse gas and photochemical pollutant. Tropospheric ozone changes contribute to radiative forcing on a global scale. Global warming potential for short-lived greenhouse gases, such as ozone and aerosols, are not defined by the IPCC.	Ozone is formed from reactions of ozone precursors (nitrogen oxides [NO _x] and volatile organic compounds [VOC]) and sunlight in the atmosphere. VOC and NO _x are emitted from automobiles, solvents, and fuel combustion.
Aerosols	Aerosols are particulate matter suspended in the air. They are short-lived and remain in the atmosphere for about a week. Aerosols warm the atmosphere by absorbing heat and cool the atmosphere by reflecting light, with radiative forcing cooling effects of -1.2 Wm^{-2} . There is a low scientific understanding of the radiative forcing of individual aerosols, such as black carbon.	Sulfate aerosols are emitted when fuel containing sulfur is burned. Black carbon (or soot) is emitted during biomass burning and incomplete combustion of fossil fuels (such as diesel fuel).

Greenhouse Gas	Description and Physical Properties	Sources
	Black carbon can cause warming from deposition on snow (+0.1 Wm ⁻²) and from suspensions in air (+0.2 Wm ⁻²). A global warming potential of 761 for black carbon has been identified in a journal article. Global cooling potentials for other aerosols in a metric similar to the global warming potential are not available.	
Methane	Methane (CH ₄) is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 21.	Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, decay of organic matter, and cattle.
Nitrous oxide	Nitrous oxide is also known as laughing gas and is a colorless greenhouse gas. It has a lifetime of 114 years. Its global warming potential is 310.	Microbial processes in soil and water, fuel combustion, and industrial processes.
Carbon dioxide	Carbon dioxide (CO ₂) is an odorless, colorless, natural greenhouse gas. Carbon dioxide's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960. Carbon dioxide from fossil fuels contributed 81 percent of greenhouse gas emissions in 2004 in California.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
Chloro-fluorocarbons	These are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). Global warming potentials range from 3,800 to 8,100.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987.
Hydro-fluorocarbons	Hydrofluorocarbons are a group of greenhouse gases containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
Per-fluorocarbons	Perfluorocarbons have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Global warming potentials range from 6,500 to 9,200.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.

Source: California Environmental Protection Agency, 2006; Intergovernmental Panel on Climate Change, 2007.

Individual greenhouse gas compounds have varying global warming potential and atmospheric lifetimes. The calculation of the carbon dioxide equivalent is a consistent methodology for comparing greenhouse gas emissions since it normalizes various emissions to a consistent metric. Methane's warming potential of 21 indicates that methane has a 21 times greater warming effect than carbon dioxide on a molecule per molecule basis. A carbon dioxide equivalent is the mass emissions of an individual greenhouse gas multiplied by its global warming potential.

Water Vapor

Water vapor (H₂O) is the most abundant, important, and variable greenhouse gas in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere, it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to hold more water when it is warmer), leading to more water vapor in the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a positive feedback loop. The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up). There are no health effects from water vapor itself; however, when some pollutants come in contact with water vapor, they can dissolve and the water vapor can then act as a pollutant-carrying agent. The main source of water vapor is evaporation from the oceans (approximately 85 percent). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.

Carbon Dioxide

Carbon dioxide (CO₂) is an odorless and colorless greenhouse gas. Outdoor levels of carbon dioxide are not high enough to result in negative health effects. Carbon dioxide is emitted from natural and manmade sources. Natural sources include the decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include the burning of coal, oil, natural gas, and wood. Carbon dioxide is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases greenhouse gas emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm an increase of more than 30 percent. Left unchecked, the concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by the year 2100 as a direct result of anthropogenic emission sources.

Methane

Methane (CH₄) is an extremely effective absorber of radiation, though its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere is brief (10 to 12 years), compared with other GHGs. No health effects are known to occur from exposure to methane. Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil fuel combustion and biomass burning.

Nitrous Oxide

Nitrous oxide (N₂O), also known as laughing gas, is a colorless greenhouse gas. Nitrous oxide can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's lesions (brain damage). Concentrations of nitrous oxide also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). Nitrous oxide is produced by microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen. In addition, to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, for instance, in whipped cream bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. Nitrous oxide can be transported into the stratosphere, be deposited on the earth's surface, and be converted to other compounds by chemical reaction.

Chlorofluorocarbons

Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C₂H₆) with chlorine and/or fluorine atoms. The gases are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). Chlorofluorocarbons are no longer being used; therefore, it is not likely that health effects would be experienced. Nonetheless, in confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation. Chlorofluorocarbons have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants, and cleaning solvents. Because of the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons

Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of the three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are, HFC-23 (CHF₃),

HFC-134a (CF₃CH₂F), and HFC-152a (CH₃CHF₂). Prior to 1990, the only significant emissions were of HFC-23. The EPA estimates that concentrations of HFC-134a emissions are increasing because of its use as a refrigerant. The EPA also estimates that concentrations of HFC-23 and HFC-134a are now about 10 parts per trillion (ppt) each; and that concentrations of HFC-152a are about 1 ppt. No health effects are known to result from exposure to HFCs, which are man-made for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur approximately 60 kilometers (37.5 miles) above Earth's surface, are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF₄) and hexafluoroethane (C₂F₆). The EPA estimates that concentrations of CF₄ in the atmosphere are over 70 ppt. No health effects are known to result from exposure to PFCs. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur Hexafluoride

Sulfur hexafluoride (SF₆) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest global warming potential of any gas evaluated (23,900). The EPA indicates that concentrations in the 1990s were about 4 ppt. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

MODELING PARAMETERS AND ASSUMPTIONS

Model Selection

The California Emissions Estimator Model (CalEEMod) was used to quantify project related construction and operational emissions. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. The model quantifies direct emissions from construction and operations (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The model incorporates Pavley standards and Low Carbon Fuel standards into the mobile source emission factors. Further, the model identifies mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user. The SJVAPCD recommends the use of CalEEMod to quantify project impacts.

3.7.3 IMPACT EVALUATION CRITERIA

Analysis Methodology

Applied methodology comes from the SJVAPCD's "Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA" and the "District Policy - Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency". As discussed previously, projects complying with any SJVAPCD adopted BPSs are not to require specific quantification of GHG emissions and thus would be determined to have a less than significant cumulative impact for GHG emissions. Projects not complying with BPSs thus require quantification of GHG emissions and demonstration that GHG emissions have been reduced or mitigated by 29 percent, as targeted by ARB's AB 32 Scoping Plan to be considered to have a less than significant impact on climate change.

Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether greenhouse gas emissions impacts are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

- a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*
- b) *Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?*

Generally, the evaluation of an impact under CEQA requires measuring data from a project against a "threshold of significance". The Office of Planning and Research's amendments to the CEQA Guidelines state that "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence".

However, the CEQA Guideline amendments do not identify a threshold of significance for GHG emissions, nor does it prescribe assessment methodologies or specific mitigation measures. Instead, it calls for a "good faith effort, based on available information, to describe, calculate or estimate the amount of GHG emissions resulting from a project".

Guideline 15064.4(a) states, "...A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use...; or (2) Rely on a qualitative analysis or performance based standards."

The CEQA Guidelines amendments for GHG emissions state that a lead agency may take into account the following three considerations in assessing the significance of impacts from GHG emissions:

Consideration No. 1: The extent to which the project may increase or reduce GHG emissions compared with the existing environmental setting. This discussion could involve a quantification of GHG emissions to the extent feasible;

Consideration No. 2: Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and

Consideration No. 3: The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

In accordance with the SJVAPCD's guidance for addressing GHG emission impacts for new projects under CEQA, a project would be considered to have a less-than-significant individual and cumulative impact on climate change if it were to do at least one of the following:

- Exempt from the requirements of CEQA; or
- Comply with an approved GHG emission reduction plan or GHG mitigation program, which avoids or substantially reduces GHG emissions within the geographic area in which the project is located. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the lead agency; or
- Implement approved best performance standards; or
- Quantify project GHG emissions and reduce those emissions by at least 29 percent compared to Business as Usual. "Business as Usual" is referenced in ARB's AB 32 Scoping Plan as emissions occurring in 2020 if the average baseline emissions during the 2002–2004 period grew to 2020 levels without additional control. Therefore, 2002–2004 emissions factors, on a unit of activity basis, multiplied by the activity expected to occur in 2020, is an appropriate representation of 2020 Business as Usual. The reductions can be based on any combination of reduction measures, including GHG reductions achieved as a result of changes in building and appliance standards occurring since the 2002–2004 baseline period.

The project is not exempt from CEQA. The Scoping Plan prepared pursuant to AB 32 demonstrates how California would reduce GHG emissions to 1990 levels by the year 2020. However, most of the measures in the Scoping Plan are not applicable to the project. There are no approved best performance standards that would apply to the project. Therefore, the approach used in this analysis is to quantify GHG emissions and reduce the emissions by at least 29 percent compared to Business as Usual.

3.7.4 IMPACTS AND MITIGATION MEASURES

Impact #3.7-1 – Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

As stated previously, the SJVAPCD has established a menu of performance standards, some of which depend on the existence of an adopted climate action plan or the establishment of Best Performance Standards. This analysis adopts the following alternative threshold provided by the SJVAPCD: whether the project will reduce or mitigate GHG levels by 29 percent from business-as-usual levels. To do so, this the analysis first will quantify project-related GHG emissions under a business-as-usual scenario, and then compare these emissions with those emissions that would occur when all project-related design features are accounted for, and when compliance with new regulatory measures is assumed. The standard and methodology is explained in further detail, below.

This analysis uses the SJVAPCD's thresholds, rather than relying upon thresholds adopted by Air SJVAPCDs in the urban areas of California, or that considered by the SJVAPCD as most appropriate for the Valley, despite criticism thereof by some clean air advocates.

Construction

An upstream emission source (also known as life cycle emissions) refers to emissions that were generated during the manufacture of products to be used for construction of the project. Upstream emission sources for the project include but are not limited to the following: emissions from the manufacture of cement; emissions from the manufacture of steel; and/or emissions from the transportation of building materials to the seller. The upstream emissions were not estimated because they are not within the control of the project and to do so would be speculative. Additionally, the California Air Pollution Control Officers Association White Paper on CEQA and Climate Change supports this conclusion by stating, “The full life-cycle of GHG [greenhouse gas] emissions from construction activities is not accounted for ... and the information needed to characterize [life-cycle emissions] would be speculative at the CEQA analysis level” (California Air Pollution Control Officers Association 2008). Therefore, pursuant to CEQA Guidelines Sections 15144 and 15145, upstream/life cycle emissions are speculative; no further discussion is necessary.

Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and prevailing weather conditions. Construction emissions result from onsite and offsite activities. Onsite emissions principally consist of exhaust emissions (NO_x, SO_x, CO, CO₂, CH₄, N₂O, VOC, PM₁₀, and PM_{2.5}) from heavy duty construction equipment, motor vehicle operation, and fugitive dust (mainly PM₁₀) from disturbed soil. Additionally, paving operations and application of architectural coatings would release VOC emissions. Offsite emissions are caused by motor vehicle exhaust (NO_x, SO_x, CO, CO₂, CH₄, N₂O, VOC, PM₁₀, and PM_{2.5}) from delivery vehicles, worker traffic, and road dust (PM₁₀ and PM_{2.5}).

The proposed project would be constructed in three phases of approximately three to four months each over the course of approximately six years, however to provide a “worst-case” scenario, the project’s construction was conservatively estimated to be built out simultaneously within a year following entitlement approvals. It was assumed that the project’s construction would start in June 2013 and be completed by July 2014 (see Section 3.3 of this EIR). Although this date occurs in the past, it is presented for informational purposes and provides the “worst-case” scenario.

Greenhouse gas emissions generated during construction are shown in Table 3.7-3. The SJVAPCD does not have a recommendation for assessing the significance of construction related emissions. The majority of construction-related emissions would occur prior to the year 2020, which is the year the State is required to reduce its greenhouse gas emissions to 1990 levels. Therefore, any construction-related emissions would be less than significant.

**Table 3.7-3
Construction Greenhouse Gas Emissions**

Year	Bio-CO2	Nbio-CO2	Total CO2	CH4	N2O	CO2e
2013	-	883.39	883.39	0.09	-	- 885.26
2014	-	430.67	430.67	0.04	-	431.61
Total	-	1,314.06	1,314.06	0.13	-	1,316.87

Source: Avila and Sons, 2013.

Notes: Defaults for the California Emissions Estimator Model 2011 version.

As shown in Table 3.7-4, emissions would be approximately 10,637.65 MTCO_{2e} in 2020. As shown, the largest source of emissions is from motor vehicles that would access the project site, contributing approximately 57 percent of the emissions in 2020. The emissions presented account for reductions attributable to regulations that occurred after 2004 (Mobile – Pavley and Low Carbon Fuel Standard as calculated by CalEEMod and Renewable Portfolio Standards requiring a 33 percent renewable portfolio by the year 2020). As shown in Table 3.7-4, the regulations alone would not achieve the required target reduction of 29 percent below business as usual, which is a potentially significant impact.

The proposed project would comply with California Green Building standards requiring indoor water conservation and would also implement mitigation measures to reduce employee vehicle trips through compliance with SJVAPCD Rule 9410. However, these measures would not reduce GHG emissions below 29 percent BAU.

Conclusion: Construction emissions would primarily occur prior to 2020, therefore they would be less than significant. Operational emissions would not meet the target thresholds of 29 percent below BAU. Impacts would be *potentially significant*.

Mitigation Measure #3.7-1: The applicant shall implement an employer-based trip reduction program in compliance with SJVAPCD Rule 9410. The trip reduction program may include ride-sharing information, carpools, and vanpools.

**Table 3.7-4
2020 Operational Greenhouse Gas Emissions**

Source	2020 Business as Usual (BAU) CO ₂ e	2020 With Regulations CO ₂ e	2020 with Regulations and Mitigation Measures CO ₂ e
Area	0.00	0.00	0.00
Energy	1,424.66	1,047.46	1,047.46
Employee Vehicles	1,156.96	829.42	767.62
Field Trucks	709.57	643.51	643.51
Shipping Trucks	4,185.90	3,780.51	3,780.51
Waste	884.36	884.36	442.18
Water	2,276.20	1,880.94	1,504.75
Total	10,637.65	9,066.20	8,186.03
Reduction	N/A	15%	23%
Significance Threshold	N/A	29%	29%
Significant?	N/A	Yes	Yes

Source: Quad Knopf, 2013.

Note: Some defaults from the California Emissions Estimator Model, 2011 were applied.

Effectiveness of Mitigation: The above mitigation measure would not achieve the required reduction of 29 percent below BAU; therefore, the residual significance of this impact is *significant and unavoidable*.

Impact #3.7-2 – Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG.

Stanislaus County does not have a greenhouse gas reduction plan or climate action plan. In the absence of a local, regional, or state plan that fully satisfies the requirements of the CEQA Guidelines, the project’s compliance with AB 32 is evaluated through compliance with the applicable measures in the Scoping Plan below.

The ARB Governing Board approved a Climate Change Scoping Plan in December 2008. The Scoping Plan outlines the State’s strategy to achieve the 2020 greenhouse gas emissions limit. The Scoping Plan “proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health” (California Air Resource Board 2008).

Project consistency with applicable strategies in the Scoping Plan is assessed in Table 3.7-5. As shown, the project is consistent with the applicable strategies in the Scoping Plan.

**Table 3.7-5
2020 Consistency with Applicable Scoping Plan Reduction Measure**

Scoping Plan Reduction Measure	Project Consistency or Reason Why Not Applicable
1. California Cap-and-Trade Program Linked to Western Climate Initiative. Implement a Broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater benefits for California.	Not Applicable. This cap and trade program began in Fall 2012, products or services (such as electricity) are covered and the cost of the cap-and trade system will be transferred to the consumers.
2. California Light-Duty Vehicle Greenhouse Gas Standards. Implement adopted standards and planned second phase of the program. Align zero emission vehicle, alternative and renewable fuel and vehicle technology programs with long term climate change goals.	Not Applicable. This is a statewide measure that cannot be implemented by a project applicant or lead agency. When this measure is initiated, the standards would be applicable to the light-duty vehicles that would access the project site.
3. Energy Efficiency. Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	Consistent. This is a measure for the State to increase its energy efficiency standards. However, the project would increase its energy efficiency through project design features (through implementing Title 24 and Green Building Standards).
4. Renewable Portfolio Standard. Achieve 33 percent renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.	Consistent. TID continues to diversify its power supply portfolio through the incorporation of solar, hydroelectric, wind, and fuel cells.
5. Low Carbon Fuel Standard. Develop and adopt the Low Carbon Fuel Standard.	Not Applicable. This is a statewide measure that cannot be implemented by a project applicant or lead agency. When this measure is initiated, the standard would be applicable to the fuel used by vehicles that would access the project site.
6. Regional Transportation-Related Greenhouse Gas Targets. Develop regional greenhouse gas emissions reduction targets for passenger vehicles. This measure refers to SB 375.	Not Applicable. The project is not related to developing greenhouse gas emission reduction targets.
7. Vehicle Efficiency Measures. Implement light-duty vehicle efficiency measures.	Not Applicable. When this measure is initiated, the standards would be applicable to the light-duty vehicles that would access the project site.
8. Goods Movement. Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.	Not Applicable. The project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation.
9. Million Solar Roofs Program. Install 3,000 MW of solar-electric capacity under California's existing solar programs.	Not Applicable. This measure is being implemented by various agencies throughout California.

Scoping Plan Reduction Measure	Project Consistency or Reason Why Not Applicable
10. Medium/Heavy-Duty Vehicles. Adopt medium and heavy-duty vehicle efficiency measures.	Not Applicable. This is a statewide measure that cannot be implemented by a project applicant or lead agency. When this measure is initiated, the standards would be applicable to vehicles that access the project site.
11. Industrial Emissions. Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.	Not Applicable. The project would not be considered a large industrial source.
12. High Speed Rail. Support implementation of a high-speed rail system.	Not Applicable. This is a statewide measure that cannot be implemented by a project applicant or the City.
13. Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	Consistent. The State's goal is to increase the use of green building practices. The project would implement comply with California Green-building code.
14. High Global Warming Potential Gases. Adopt measures to reduce high global warming potential gases.	Not Applicable. When this measure is initiated, it would be applicable to those gases that have high global warming potential that would be used by the project (such as in air conditioning and refrigerators).
15. Recycling and Waste. Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	Consistent. The project would not contain a landfill. The State's goal is to help increase waste diversion. The project would participate in the County's recycling program.
16. Sustainable Forests. Preserve forest sequestration and encourage the use of forest biomass for	Not Applicable. The project site is in disturbed condition. No forested lands exist onsite sustainable energy generation.
17. Water. Continue efficiency programs and use cleaner energy sources to move and treat water.	Consistent. This is a measure for state and local agencies. The project would implement water conservation features pursuant to the California Greenbuilding code.
18. Agriculture. In the near-term, encourage investment in manure digesters and at the five year Scoping Plan update determine if the program should be made mandatory by 2020.	Not Applicable. No grazing, feedlot, or other agricultural activities that generate manure occur onsite or are proposed to be implemented by the project.

Source: California Air Resource Board, 2008.

Note: Project consistency or applicability was determined by Quad Knopf.

Although the project would be consistent with applicable Scoping Plan Reduction Measures, the project would not achieve the required 29 percent below BAU reduction that would help the State meet the overall reductions necessary to bring emissions to 1990 levels by 2020.

Conclusion: The proposed project may obstruct attainment of the goals established under AB 32. The project would comply with all present and future regulatory measures developed in accordance with AB 32 and ARB's Scoping Plan, and will incorporate a number of measures that would minimize greenhouse gas emissions beyond existing regulatory requirements, however impacts are *potentially significant*.

Mitigation Measures: Implement Mitigation Measure #3.7-1.

Effectiveness of Mitigation: The above mitigation measure would not achieve the required reduction of 29 percent below BAU; therefore, the residual significance of this impact is *significant and unavoidable*.

3.8 Hazards and Hazardous Materials

This section provides an evaluation of the potential hazards and hazardous materials impacts that would be caused by implementation of the proposed project. The discussion starts with an overview of regulation that is normally applicable to hazards and hazardous materials, followed by a description of the physical setting of both the site and surrounding lands. An analysis is then provided to determine whether the impact(s) would be less than significant, significant without mitigation, or significant and unavoidable. If an impact is significant and can be reduced with mitigation, then a description of the mitigation measure(s) is provided.

This section was prepared in part using a Phase I and II Environmental Site Assessment dated December 2013, prepared by J House Environmental Inc. (Appendix D).

3.8.1 REGULATORY SETTING

A substance may be considered hazardous due to a number of criteria, including toxicity, ignitability, corrosivity, or reactivity. The term “hazardous material” is defined in law as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.

Once a hazardous material becomes ready for discard, it becomes a hazardous waste. A hazardous waste, for the purpose of this report, is any hazardous material that is abandoned, discarded, or (planned to be) recycled. In addition, hazardous wastes may occasionally be generated by actions that change the composition of previously non-hazardous materials. The same criteria (toxicity, ignitability, corrosivity, or reactivity) that render a material hazardous make waste hazardous.

The use of hazardous materials and disposal of hazardous waste are subject to numerous laws and regulations at all levels of government. Below is a brief overview of federal, State, and local laws and regulations.

Federal

RESOURCE CONSERVATION AND RECOVERY ACT 42 U.S.C. S/S 6901 ET SEQ. (1976)

Under the Resource Conservation and Recovery Act (RCRA), individual states may implement their own hazardous waste programs in lieu of RCRA, as long as the state program is at least as stringent as the federal RCRA requirements. The U.S. Environmental Protection Agency (EPA) must approve state programs intended to implement federal regulations. In California, the California Environmental Protection Agency (Cal EPA) and the Department of Toxic Substances Control (DTSC), a department within Cal EPA, regulate the generation, transportation, treatment, storage, and disposal of hazardous waste. In 1992 the EPA approved California’s RCRA program known as the Hazardous Waste Control Law (HWCL). The DTSC has primary hazardous material regulatory responsibility, but can delegate enforcement responsibilities to

local jurisdictions that enter into agreements with the agencies for the generation, transport, and disposal of hazardous materials under the authority of the HWCL.

The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; prescribe the management of hazardous wastes; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in ordinary landfills. A hazardous waste generator must, for a minimum of three years, retain hazardous waste manifests. Hazardous waste manifests provide a description of the waste, its intended destination, and regulatory information about the waste. A copy of each manifest must be filed with the state. The generator must match copies of hazardous waste manifests with receipts from treatment, storage, and disposal facilities.

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA)

The Comprehensive Environmental Response, Compensation, and Liability Act and associated Superfund Amendments provide EPA with the authority to identify hazardous sites, to require site remediation, and to recover the costs of site remediation from polluters. California has enacted similar laws intended to supplement the federal program. The DTSC is primarily responsible for implementing California's Superfund Law.

TOXIC SUBSTANCES CONTROL ACT

The Toxic Substances Control Act requires the control of new and existing chemical substances that may pose an unreasonable risk to public health or the environment. The legislation establishes provisions for testing of chemical substances, regulation of hazardous chemical substances, manufacture and processing notices, management of imminent hazards, and reporting and recordkeeping requirements.

FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT

The federal Insecticide, Fungicide, and Rodenticide Act establish procedures for regulating the use and sale of pesticides to protect human health and the environment, and it provides federal control of pesticide distribution, sale, and use. The legislation governs the registration and labeling of pesticides and enforcement against banned and unregistered products.

U.S. DEPARTMENT OF TRANSPORTATION

The Hazardous Materials Transportation Act of 1974, as amended, is the basic statute regulating hazardous materials transportation in the United States. This law gives the U.S. Department of Transportation and other agencies the authority to issue and enforce rules and regulations governing the safe transportation of hazardous materials.

State agencies are authorized to designate highways for the transport of hazardous materials. Where highways have not been designated, hazardous materials must be transported on routes that do not go through or near heavily populated areas.

State

CALIFORNIA HEALTH AND SAFETY CODE

The California Environmental Protection Agency has established rules governing the use of hazardous materials and the management of hazardous wastes. California Health and Safety Code Sections 25531, et seq. incorporates the requirements of Superfund Amendments and Reauthorization Act and the Clean Air Act as they pertain to hazardous materials. Health and Safety Code Section 25534 directs facility owners storing or handling acutely hazardous materials in reportable quantities to develop a Risk Management Plan (RMP). The RMP must be submitted to the appropriate local authorities, the designated local administering agency, and the EPA for review and approval.

California Retail Food Code

The California Retail Food Code is an excerpt from the California Health and Safety Code, Part 7. California Retail Food Code, effective January 1, 2012. The purpose of the code is to safeguard public health and provide to consumers food that is safe, unadulterated, and honestly presented through adoption of science-based standards. The Legislature finds and declares that the public health interest requires that there be uniform statewide health and sanitation standards for retail food facilities to assure the people of this state that the food will be pure, safe, and unadulterated. Except as provided in Section 113709, it is the intent of the Legislature to occupy the whole field of health and sanitation standards for retail food facilities, and the standards set forth in this part and regulations adopted pursuant to this part shall be exclusive of all local health and sanitation standards relating to retail food facilities.

CALIFORNIA CODE OF REGULATIONS, TITLE 22, §66261.20-24

Soils having concentrations of contaminants higher than certain acceptable levels must be handled and disposed of as hazardous waste when excavated. The California Code of Regulations, Title 22, §66261.20-24 contains technical descriptions of characteristics that would cause a soil to be classified as a hazardous waste.

CALIFORNIA HAZARDOUS MATERIALS RELEASE RESPONSE PLANS AND INVENTORY LAW OF 1985 (BUSINESS PLAN ACT)

The Business Plan Act requires that any business that handles hazardous materials prepare a business plan, which must include the following:

- Details, including floor plans, of the facility and business conducted at the site;
- An inventory of hazardous materials that are handled or stored onsite;
- An emergency response plan; and
- A safety and emergency response training program for new employees with annual refresher course.

HAZARDOUS MATERIALS TRANSPORTATION REGULATIONS (26 CCR)

The State of California has adopted U.S. Department of Transportation (DOT) regulations for the intrastate movement of hazardous materials. State regulations are contained in 26 CCR. In addition, the State of California regulates the transportation of hazardous waste originating in the state and passing through the state (26 CCR). Both regulatory programs apply in California. The two State agencies with primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans).

CALIFORNIA VEHICLE CODE §32000

Common carriers are licensed by the CHP, pursuant to California Vehicle Code §32000. This section requires the licensing of every motor (common) carrier who transports, for a fee, in excess of 500 pounds of hazardous materials at one time, and every carrier, if not for hire, who carries more than 1,000 pounds of hazardous material of the type requiring placards.

CALIFORNIA EMERGENCY SERVICES ACT

Pursuant to the California Emergency Services Act, the State has developed an Emergency Response Plan to coordinate emergency services provided by federal, State, and local governmental agencies and private persons. Response to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services (OES). The OES coordinates the responses of other agencies, including Cal EPA, CHP, the California Department of Fish and Game (CDFG), the Regional Water Quality Control Boards (RWQCB), the local Air Pollution Control Districts, and local agencies.

CALIFORNIA ACCIDENTAL RELEASE PREVENTION PROGRAM

California Accidental Release Prevention Program (CalARP) regulations became effective January 1, 1997, replacing the California Risk Management and Prevention Program. The CalARP was created to prevent the accidental release of regulated substances. It covers businesses that store or handle certain volumes of regulated substances at their facilities. A list of regulated substances is found in §2770.5 of the CalARP regulations. If a business has more than the listed threshold quantity of a substance, an accidental release prevention program must be implemented and a risk management plan may be required. The California Office of Emergency Services is responsible for implementing the provisions of CalARP.

PROTECTION OF UNDERGROUND INFRASTRUCTURE [CALIFORNIA GOVERNMENT CODE, SECTION 4216]

This law requires that an excavator must contact a regional notification center (i.e., Underground Service Alert, URS) at least 2 days prior to excavation of any subsurface installations. An Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the excavation. Representatives of the utilities are required to mark the specific location of their

facilities within the work area prior to the start of excavation. The construction contractor is required to probe and expose the underground facilities by hand prior to using power equipment.

CEQA AND THE CORTESE LIST

The Cortese List (Hazardous Waste and Substances Site List) is a planning document used by the State, local agencies, and developers to comply with CEQA requirements to consider Government Code Section 5962.5 in evaluating proposed development projects. Section 65962.5 states that:

The list should contain all hazardous waste facilities subject to corrective action, all hazardous waste property or border zone property designations, all information received on hazardous waste disposals on public land, all hazardous substance release sites listed pursuant to Government Code Section 25356, and all sites that were included in the former Abandonment Site Assessment Program.

The Cortese List is maintained by the State's Department of Natural Resources and available online. The Department of Toxic Substances Control compiles and updates the list annually and submits it to the Secretary for Environmental Protection (California Environmental Protection Agency 2007).

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CAL EPA)

Government Code Section 65962.5 requires the California Environmental Protection Agency (Cal EPA) to develop a Cortese List at least annually. The Department of Toxic Substances Control is responsible for a portion of the information on the list, and other local and State government agencies are required to provide additional information. The Cal EPA operates the Air Resources Board, the Department of Pesticide Regulation, Department of Toxic Substances Control, Integrated Waste Management Board, Office of Environmental Health Hazard Assessment, and the State Water Resources Control Board. The function of each of these six offices is discussed below.

California Air Resources Board (ARB): To promote and protect public health, welfare and ecological resources through the effective and efficient reduction of air pollutants in recognition and consideration of the effects on the economy of the State.

Department of Pesticide Regulation (DPR): Regulates all aspects of pesticide sales and use to protect the public health and the environment for the purpose of evaluating and mitigating impacts of pesticide use, maintaining the safety of the pesticide workplace, ensuring product effectiveness, and encouraging the development and use of reduced risk pest control practices.

Department of Toxic Substances Control (DTSC): The Department's mission is to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention. DTSC protects residents from exposures to hazardous wastes. DTSC operates programs to:

- Deal with the aftermath of improper hazardous waste management by overseeing site cleanups;
- Prevent releases of hazardous waste by ensuring that those who generate, handle, transport, store and dispose of wastes do so properly;
- Take enforcement actions against those who fail to manage hazardous wastes appropriately;
- Explore and promote means of preventing pollution, and encourage reuse and recycling; and
- Evaluate soil, water and air samples taken at sites, and develop new analytical methods.

Department of Resources Recycling and Recovery (CalRecycle): Protects the public health and safety and the environment through waste prevention, waste diversion, and safe waste processing and disposal. The Integrated Waste Management Board (IWMB) is responsible for managing California's solid waste stream. The Board is helping California divert its waste from landfills by:

- Developing waste reduction programs;
- Providing public education and outreach;
- Assisting local governments and businesses;
- Fostering market development for recyclable materials;
- Encouraging used oil recycling;
- Regulating waste management facilities; and
- Cleaning up abandoned and illegal dump sites.

Office of Environmental Health Hazard Assessment (OEHHA): The OEHHA is responsible for developing and providing risk managers in State and local government agencies with toxicological and medical information relevant to decisions involving public health. OEHHA also works with federal agencies, the scientific community, industry and the general public on issues of environmental as well as public health. Specific examples of OEHHA responsibilities that directly relate to Fresno include:

- Developing health-protective exposure standards for air, water, and land to recommend to regulatory agencies, including ambient air quality standards for the Air Resources Board and drinking water chemical contaminant standards for the Department of Health Services;
- Assessing health risks to the public from air pollution, pesticide and other chemical contamination of food, seafood, drinking water, and consumer products; and
- Providing guidance to local health departments, environmental departments, and other agencies with specific public health problems, including appropriate actions to take in emergencies that may involve chemicals.

State Water Resources Control Board (SWRCB): Preserves and enhances the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations. The SRWQCB maintains the Leaking Underground Storage

Tank Information System (LUTIS) Database, which contains information on registered leaking underground storage tanks (LUSTs) in the State.

California Occupational Safety and Health Agency (CalOSHA): CalOSHA sets and enforces standards that insure safe and healthy working conditions for California's workers. The Division of Occupational Safety & Health is charged with the jurisdiction and supervision over workplaces in California that are not under federal jurisdiction. CalOSHA regulates issues involving unsafe workplace conditions, worker exposure to chemicals, illness due to workplace exposure, or improper training.

STATE REGULATORY PROGRAMS DIVISION (SRPD)

The SRPD oversees the technical implementation of the State's Unified Program; a consolidation of six environmental programs at the local level, and conducts reviews of Unified Program agencies to ensure their programs are consistent statewide, conform to standards, and deliver quality environmental protection at the local level. The State's hazardous waste recycling and resource recovery program is also overseen by the SRPD which is designed to facilitate recycling and reuse of hazardous waste. The SRPD conducts a corrective action oversight program that assures any releases of hazardous constituents at generator facilities that conduct onsite treatment of hazardous waste are safely and effectively remediated, and oversees the hazardous waste generator and onsite waste treatment surveillance and enforcement program carried out by local Unified Programs.

CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) AND CALIFORNIA HIGHWAY PATROL

The California Vehicle Code Section 31303 requires that hazardous materials be transported via routes with the least overall travel time, and prohibits the transportation of hazardous materials through residential neighborhoods. In California, the California Highway Patrol (CHP) is authorized to designate and enforce route restrictions for the transportation of hazardous materials. To operate in California, all hazardous waste transporters must be registered with the Department of Toxic Substances Control (DTSC). Unless specifically exempted, hazardous waste transporters must comply with the California Highway Patrol Regulations, the California State Fire Marshal Regulations, and the United States Department of Transportation Regulations. In addition, hazardous waste transporters must comply with Division 20, Chapter 6.5, Article 6 and 13 of the California Health and Safety Code, and the Title 22, Division 4.5, Chapter 13 of the California Code of Regulations, both of which are administered by DTSC.

CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD (RWQCB)

There are nine Regional Water Quality Control Boards (RWQCBs) throughout the state. The Central Valley RWQCB has jurisdiction over Stanislaus County. Individual RWQCBs function as the lead agencies responsible for identifying, monitoring, and cleaning up LUSTs. Storage of hazardous materials in USTs is regulated by the State Water Resources Control Board (SWRCB), which oversees the nine RWQCBs.

Local

STANISLAUS COUNTY

General Plan

As stated in the Stanislaus General Plan the use, transportation and disposal of hazardous materials is becoming an issue of increasing concern. State laws were passed in 1985 that require users of hazardous materials to disclose the type and location of such materials so that emergency response teams can be prepared for potential disasters. Routes are being specified to limit transportation of hazardous material such as nuclear waste.

Pursuant to California Code Title 14, Section 65300 the 1994 Stanislaus County General Plan addresses hazards and hazardous materials in several of its Safety Element policies. The plan also includes local, regional, State, and federal programs and regulations as well as a comprehensive set of guiding and implementing policies, as listed below:

SAF: Policy Seven- Adequate fire and sheriff protection shall be provided;

SAF: Policy Ten-The County shall limit the siting of air strips;

SAF: Policy Eleven- Restrict large communications antennas within the agricultural area with respect to maximum height, markings (lights) and location to provide maximum safety levels;

SAF: Policy Thirteen- The Department of Environmental Resources shall continue to coordinate efforts to identify locations of hazardous materials and prepare and implement plans for management of spilled hazardous materials as required; and

SAF: Policy Fourteen- The County will continue to enforce state-mandated structural Health and Safety Codes, including but not limited to the Uniform Building Code, the Uniform Housing Code, the Uniform Fire Code, the Uniform Plumbing Code, the National Electric Code, and Title 24 (Comment: The Uniform Building Code includes provisions for safe construction under the most current standards. The Uniform Housing Code provides for upgrading of existing dwellings to eliminate health and safety problems without requiring upgrading of non-hazardous conditions).

Hazards and hazardous materials are addressed at the county level through the Stanislaus County Department of Environmental Health which implements the policies listed above. The Uniform Housing Code eliminates health and safety problems including lead hazards.

Stanislaus County Department of Environmental Resources

A Certified Unified Program Agency (CUPA) is an agency of a county or city that administers several State programs regulating hazardous materials and hazardous wastes. The Stanislaus County Department of Environmental Resources is the CUPA within Stanislaus County. The

department consists of a team which includes a program manager for each division. The program manager has the following responsibilities under the hazardous materials division.

- Implement Risk Management and Prevention laws to minimize chemical releases in the community;
- Maintain hazardous materials response team to assist public and fire agencies during transportation and industrial accidents involving chemical spills;
- Prepare and implement the County's Area Plan for emergency response to chemical spills in the community;
- Permit and inspect the removal of underground storage tanks;
- Oversee site investigation for soil and groundwater contamination and clean-up;
- Permit and monitor underground storage tanks;
- Inspect hazardous waste generators. Review procedures for storage, treatment and disposal of hazardous wastes;
- Implement the County's Electronic Waste collection program;
- Develop and implement the County's Household Hazardous Waste collection program;
- Inspect medical facilities to ensure compliance with State medical waste management laws; and
- Implement hazardous materials disclosure laws (business plans) to ensure access to information about chemicals handled by businesses. (County of Stanislaus 2013a).

The department works with other agencies around the county in the management of hazardous matters. Starting January 1, 2013, all CUPA businesses were required by Assembly Bill (AB) 2286 to submit business information electronically through the California Environmental Reporting System (CERS) (Stanislaus County 2013b).

Stanislaus Consolidated Fire

In 1995 the Stanislaus Consolidated Fire Protection District was formed out of four fire agencies in order to reduce costs by combining equipment and staff. Currently there are 51 employees and depending on the needs, approximately 10 volunteers that operate six fire stations. The Fire District is governed by a five-member Board of Directors.

The Fire District coordinates with the Forestry and Fire Protection (CalFire) Department in the County's State Responsible Areas (SRA). While the Fire District is responsible structures for in the SRA, and the CalFire is responsible for land. Portions of Highways 108 and 132 run through

the District as well as the Burlington Northern Santa Fe Railroad. The Stanislaus and Tuolumne rivers also run through portions of the District. The Fire District serves approximately 217 square miles which includes the cities of Waterford and Riverbank, and communities of Empire, Hickman and LaGrange and a large unincorporated area.

The Fire District responds to a variety of needs including: medical aids, extrication, water rescue, structural fires, hazardous materials responses, vegetation fires, and miscellaneous calls such as car fires, trash fires, etc. (Stanislaus Consolidated Fire Protection District 2011).

Multi-Jurisdictional Hazard Mitigation Plan

The County's Multi-Jurisdictional Hazard Mitigation Plan Updated 2010 replaces the 2006 version, and was submitted to the Chief Executive Officer by the Stanislaus County Board of Supervisors.

On April 14, 2011, the Stanislaus Consolidate Fire Protection District's Board of Directors passed Resolution 2010-03, which authorizes participation in the Local Multi-Jurisdictional Hazard Mitigation Plan (LHMP). According to the District's website:

Stanislaus County's Local Multi-Jurisdictional Hazard Mitigation Plan is a countywide plan that identifies risks posed by disasters, and identifies ways to minimize damage from those disasters. The plan is a comprehensive resource document that serves many purposes, including: enhancing public awareness and understanding, creating a decision tool for management, promoting compliance with State and Federal program requirements, enhancing local policies for hazard mitigation capability, and providing inter-jurisdictional coordination. The SCFPD's plan specifically targets the risks posed to the Fire District (Stanislaus Consolidated Fire Protection District 2013).

All jurisdictions within Stanislaus County are invited to participate in the plan development process and to formally adopt the final plan. In order to be in compliance with the Federal Emergency Management Agency's Disaster Mitigation Act, jurisdictions must adopt the plan or develop their own mitigation plan (2013).

CITY OF TURLOCK

Westside Industrial Specific Plan

As previously mentioned, the right-of-way of North Washington Street is in the Turlock city limits. The road is classified as an expressway in the Turlock General Plan. In addition to landscape screening for onsite parking areas, frontage improvements including curb, gutter, and sidewalk will be required along with a right turn lane into the project site. The proposed driveway would be aligned with the new traffic signal into the Blue Diamond facility on North Washington Road. All of these activities would generate traffic and be directly related to hazards and hazardous issues. Compliance with the Westside Industrial Specific Plan will include the following policies:

I-P- 49: The City will evaluate the potential detrimental effect, if any, from locating a hazardous waste management site in the Plan Area, and if appropriate, will seek amendment of the Stanislaus County Hazardous Waste Management Plan to eliminate for any future consideration the southwest quadrant of the City as a candidate location of a hazardous waste management facility;

I-P- 50: The City will encourage industrial development that utilizes solid waste material for recycling or co-generation;

I-P- 62: All development is required to meet the fire protection standards established by the City. Typical standards include, but are not limited to hazardous materials plans;

R-P 10: The discharge of oil, gasoline, diesel fuel, or any other petroleum derivative, or any toxic chemical or hazardous water is prohibited; and

R-P 18: Comply with the National Emission Standards for Hazardous Air Pollutants (NESHAPS) and the SJVAPCD Compliance Assistance Bulletin, Asbestos Synopsis, during renovation and/or demolition of existing buildings, specifically as it relates to asbestos.

Chapters 5 and 6 of the WISP plan provide a detailed overview of the specific plan area including its infrastructure and services and land use objectives as related to hazards and hazardous materials. The plan can be accessed at the City of Turlock's website using the following path:

<http://www.ci.turlock.ca.us/pdfink.asp?pdf=documents/developmentservices/planning/guidelines/WISP.pdf?o=o&title=Westside%20Industrial%20Specific%20Plan>.

Turlock Mosquito Abatement District

The Turlock Mosquito Abatement District was created in 1946 to protect the health of residents of the cities of Ceres, Hughson, Grayson, Newman, Patterson and Turlock from the transmission of mosquito borne viruses and to provide relief from the nuisance of the insects. "Originally, the District was established to control mosquitoes within a 342-square mile area; however, over time the area of service expanded to include all of southern Stanislaus County (south of the Tuolumne River) which covers 966-square miles." The District also provides services to the southern portion of the county.

Pursuant to the Health and Safety Code, Chapter 1, Division 3 the District can perform the following duties:

- Conduct surveillance programs and other appropriate studies of mosquito and mosquito borne diseases;
- Take any and all necessary or proper actions to prevent the occurrence of mosquito and mosquito borne diseases;

- Take any and all necessary actions to abate or control mosquito and mosquito borne diseases; and
- The District may also levy special benefit assessments to raise revenues if there are inadequate revenues to meet the costs of providing facilities, programs, projects, and services (including vector control projects or programs).

The District is governed by an eight member Board of Trustees under the California Mosquito and Vector Control Law (Turlock Mosquito Abatement District 2013).

3.8.2 PHYSICAL SETTING

Hazardous materials are those which, by their nature (chemical, physical, or biological properties), have the potential to cause death or serious illness during the: use/consumption, processing, storage, transport, or when improperly disposed of. Materials may be: flammable, explosive, corrosive, chemically reactive, toxic, carcinogenic, radioactive, infectious, or may harm people through skin contact, inhalation, or pharmaceutical action. Associated risks have generated a great deal of regulation at federal, State, and local levels. Due to this comprehensive definition, almost all land uses may involve these materials. Projects where they are stored and used require identification and special development standards. Sites previously contaminated by hazardous materials are required to be identified and cleaned. Transport of these materials on local, regional, State, and federal roadways is also regulated. The 1994 Stanislaus General Plan Safety Element provides policies intended to keep the County in compliance with existing regulations, and to preserve public health and life safety.

Geotracker Database

The California State Water Resources Board’s Geotracker is an online database and geographic information system that is defined by the agency as follows:

“Geotracker” is the State Board’s Internet-accessible database system used by the State Board, regional boards, and local agencies to track and archive compliance data from authorized or unauthorized discharges of waste to land, or unauthorized releases of hazardous substances from underground storage tanks. This system consists of a relational database, on-line compliance reporting features, a geographical information system (GIS) interface and other features that are utilized by the State Board, regional boards, local agencies, regulated industry and the public to input, manage, or access compliance and regulatory tracking data. Geotracker was initially known as the Geographical Environmental Information Management System (GEIMS) database (California Environmental Protection Agency, State Water Resources Control Board 2011).

Table 3.8-1 lists sites within 1 mile of the proposed project site. For each site listed information is also provided on its distance from the proposed project site, the type of contaminant, and status of the cleanup.

**Table 3.8-1
Hazardous Site Records Within One Mile**

Name	Distance	Potential Contaminants	Cleanup Status
Hammer Residence	0.8	Diesel, Heating Oil/Fuel Oil	Completed/Case Closed 3/19/1996
Fikses Hardware	0.9	Gasoline	Completed/Case Closed 3/6/2006

Source: California Water Boards, 2013.

According to Table 3.8-1, there are two sites within less than a mile from the project site. The first is identified as the Hammer Residence, which is located to the north of the proposed project site. Records indicate that a diesel heating oil/fuel oil spill occurred, and as of 3/19/1996 the clean up was completed and the case closed. The second is identified as Fikses Hardware, which is located to the south of the proposed project site. Records indicate that a gasoline leaked from an underground fuel storage tank, and as of 3/6/2006 the clean up was completed and the case closed.

Hazardous Materials

Agriculture facilities that store and transport produce may use various substances, some of which are considered hazardous by federal, State, and local agencies¹. The most common hazardous materials include:

- Gasoline;
- Diesel;
- Lubricants; and
- Fumigation.

The use, storage, or release of hazardous materials can occur for a variety of reasons. For example, if fuels are stored onsite in aboveground or belowground tanks there could be an accidental leak. There could also be spillage if hauling trucks are fueled or serviced onsite. Other potentially hazardous materials could be released during fumigation of storage facilities for management of rodents and insects. Stanislaus County has an Agricultural Element in its general plan. According to the element, chemicals are regulated by the Agricultural Commission.

PHYSICAL SAFETY HAZARDS

Many of the materials discussed above are hazardous if not managed properly and could affect the physical safety of agricultural workers. Some hazardous materials present physical hazards such as the use of gasoline and diesel which are both flammable. In addition to the health hazards already described, some individuals at the project site will be exposed to hazards associated with the equipment they use. For example, large semi trucks will be moving onsite to load produce for transport which could pose vehicle or pedestrian accidents. Other accidents could occur from operating machinery inside of the warehouse.

¹ Agencies that oversee hazardous materials include the Occupational Safety & Health Administration, California Occupational Safety and Health Regulations, and Agricultural Commission.

TURLOCK AIRPARK

The proposed project site is located approximately 4.8 miles northwest of the Turlock Airpark. According to the Federal Aviation Administration the airport is classified as private use only, with an activation date of July 1946. The runways are 2,075 feet long by 60 feet wide (Federal Aviation Administration 2013).

3.8.3 IMPACT EVALUATION CRITERIA

Analysis Methodology

The methodology used to determine whether the proposed project would result in significant impacts related to hazards and hazardous materials relied on a literature review of federal, State, and local regulation. This data provided both qualitative and quantitative information which was applied to the thresholds of significance listed below.

Thresholds of Significance

According to the CEQA Guidelines, a project will normally have significant adverse impacts associated with hazards and hazardous materials if the project would:

- a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.*
- b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment or risk of explosion.*
- c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.*
- d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.*
- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area. (Refer to Initial Study, Appendix A, Found No Impact)*
- f) *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area. (Refer to Initial Study, Appendix A, Found No Impact)*
- g) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (See Chapter 7, Impacts Found to Be Less Than Significant).*

h) *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. (See Chapter 7, Impacts Found to Be Less Than Significant).*

3.8.4 IMPACTS AND MITIGATION MEASURES

Impact #3.8-1 – Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Impact #3.8-2 – Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Phase I/Phase II Environmental Site Assessments (ESA)

A Phase I and II ESA was completed by J House Environmental, Inc. at the proposed project site (Appendix D) in conformance with the American Society for Testing and Materials (ASTM [E1527-05]). The purpose of the assessment was to identify if “recognized environmental conditions”, as defined in ASTM E1527-05, or other potential environmental concerns exist at the proposed project site. The Phase I ESA concluded that a Phase II soil sampling should be completed to evaluate whether chemical residues associated with historic site operations are present in soil in concentrations that could pose a health risk. Specifically, the soil sampling was recommended for two potential environmental concerns, as follows:

- The project site has been used for agricultural production since at least 1946. Due to the lengthy period of site use as orchard land and for growing irrigated row crops, organochlorine pesticides (OCPs) and lead and arsenical-based pesticides may have been applied and chemical residues may be present; and
- Two areas in the eastern portion of the site have been used for agricultural support facilities, including dwellings, barns, outbuildings and equipment storage areas, since at least 1946. Support operations conducted during this period may have included farm equipment maintenance and fueling as well as agricultural chemical storage and mixing. Due to the lengthy period of use of this area for support activities, petroleum products, pesticides and other materials may have been released and chemical residues may be present.

The Phase I ESA also recommended that the following concerns be addressed during project development and implementation of the proposed project:

1. The northeastern portion of the project site is presently used for agricultural support operations, including agricultural chemical storage and mixing and farm equipment storage, maintenance, repair, fueling and washing. At the time of the site inspection, the areas where chemicals were being stored and/or handled appeared generally clean and well maintained. With implementation of the warehouse project, storage and use of agricultural chemicals and petroleum products will continue. Activities involving the storage and/or use of agricultural chemicals and petroleum products will need to be conducted in accordance with any

applicable Stanislaus County or State regulatory standards to ensure that operations do not pose a risk of release of hazardous materials; and

2. Due to the age of the structures at the project site, asbestos containing materials (ACMs) and surfaces painted with lead-based paint may be present. Prior to any demolition or renovation activities that could disturb suspect ACMs and painted surfaces, material testing should be conducted to ensure worker safety and confirm proper disposal methods for any demolition debris.

Concern 1: The proposed construction activities may involve the use of hazardous materials. These materials might include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, State, and local statutes and regulations. Disposal of these types of hazardous waste would occur at the permanent collection facility located at County Center IV, 1710 Morgan Road, in the city of Modesto.

Operation activities will include refueling of trucks used to haul produce to distribution centers in Los Angeles, northern California, Oregon and Washington. A 500-gallon aboveground fuel storage tank will be installed on the proposed project site. In addition to the fuel tank, fertilizers used to destroy and/or prevent pests, disease, and weeds will also be stored onsite. These activities would be regulated by various federal and State laws regarding hazardous materials. The project will exceed the “55 gallons of a liquid” threshold listed below so would be required to prepare and submit a Hazardous Materials Business Plan (Health and Safety Code 25503.5 and AB 408) to the Stanislaus County Environmental Resources Department which acts as the County’s CUPA:

- 500 pounds of a solid;
- 55 gallons of a liquid;
- 200 cubic feet of a compressed gas at standard temperature and pressure;
- Any amount of hazardous waste; and
- Amounts of radioactive materials requiring an emergency plan pursuant to Parts 30, 40, or 70 of Title 10 Code of Federal Regulations.

Chapter 6.95 of the Health and Safety Code establishes minimum statewide standards for Hazardous Materials Business Plans. Business Plans contain basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed in the state.

Concern 2: The proposed project does not include any demolition. Any future demolition would have to comply with the San Joaquin Air Pollution Control District’s regulation for asbestos.

The Phase I and II ESA completed by J House Environmental Inc. concluded the following:

- Soil sampling at the site did not show the presence of chemical residues in concentrations that are considered to pose a significant health risk under the commercial/industrial land use scenario. Samples collected to provide characterization of the former orchard land and crop field areas show no detectable concentrations of OCPs. Samples collected from the support operations area show the presence of two OCPs as well as motor oil range petroleum hydrocarbons; however, reported concentrations are below human health screening levels for commercial/industrial land use. Reported arsenic and lead concentrations in samples collected from the site are below levels that would be considered to pose a significant adverse health risk to workers; and
- Although Phase II ESA sampling does not show the presence of chemical residues in soil in concentrations that are considered to pose a significant health risk under the commercial/industrial land use scenario, as an added precaution, J House Environmental Inc. recommends that the project proponent consider implementing the following risk management measure:
 - Work areas and areas with heavy foot traffic inside the eastern, unpaved portion of the barn/packing shed should be surfaced to reduce worker exposure to dust in this area, where concentrations of 4,4'-DDT (2,600 micrograms per kilogram [ug/kg]) and 4,4'-DDD (240 ug/kg) were detected in soil.

This recommendation will also be incorporated into the proposed project to reduce impacts to less than significant.

Other Considerations

In addition, large warehouses can have pest problems that include birds nesting inside of structures. This is usually due to large warehouse doors constantly opening and closing or remaining open for long periods of time while workers load trucks. Pest-birds have been linked to transmissible diseases that can be passed on to humans (zoonotic diseases). The Center for Disease Control and other experts have provided extensive literature on this issue. A list of some well known diseases is included in Table 3.8-2. Birds can also damage or compromise the quality of produce by leaving droppings that could lead to sickness. Accidents caused from workers colliding with birds or slipping on bird droppings are also safety issues of concern.

Other pests which are known to frequent agricultural crops and venture into nearby buildings include rats and mice. "Commensal mice and rats pose a significant economic and health risk to people. Worldwide, rats and mice spread over 35 diseases. These diseases can be spread to humans directly, through handling of rodents, through contact with rodent feces, urine, or saliva, or through rodent bites. Diseases carried by rodents can also be spread to humans indirectly, through ticks, mites or fleas that have fed on an infected rodent (Centers for Disease Control and Prevention 2010). Table 3.8-2 includes some of these diseases.

**Table 3.8-2
Diseases Found in Birds, Rats, Mouse and other Rodents**

Disease Name	Description	Prevention
BIRDS		
Psittacosis (Ornithosis, Chlamydiosis)	Psittacosis is caused by the bacteria <i>Chlamydia psittaci</i> . <i>C. psittaci</i> is common in wild birds and can occur in laboratory bird colonies. Infected birds are highly contagious to other birds and to humans. The organism is spread to humans by aerosolization of respiratory secretions or feces from the infected birds. Typical symptoms in the bird are diarrhea, ocular discharge, and nasal discharge. The infection in humans by <i>C. psittaci</i> , can cause fever, headache, myalgia chills, and upper and lower respiratory disease. Serious complications can occur and include pneumonia, hepatitis, myocarditis, thrombophlebitis and encephalitis. It is responsive to antibiotic therapy but relapses can occur in untreated infections.	<i>Prevention:</i> Only disease-free flocks should be allowed into the research facility. Wild-caught birds or birds of unknown status should be treated prophylactically for 45 days with chlortetracycline. Animal Biosafety Level 2 practices are recommended for personnel working with naturally infected birds or experimentally infected birds. Wearing NIOSH certified dust masks should be considered in rooms housing birds of unknown health status.
Newcastle Disease	Newcastle disease is caused by a paramyxovirus and can be seen in birds both wild and domestic. Transmission is mainly by aerosol but contaminated food, water and equipment can also transmit the infection within bird colonies. Pathogenic strains produce anorexia and respiratory disease in adult birds. Young birds often show neurologic signs. In humans the disease is characterized by conjunctivitis, fever, and respiratory symptoms.	<i>Prevention:</i> The disease can be prevented by immunizing susceptible birds and obtaining birds from flocks free of infection. Good personal-hygiene practices which include hand washing after handling animals or their waste should be in place.
Salmonellosis	Along with a variety of other species, <i>Salmonella</i> , and other enteric bacteria are capable of causing disease in humans. Salmonellae are transmitted by the fecal-oral route. Infection produces an acute enterocolitis and fever with possible secondary complications such as septicemia.	<i>Prevention:</i> Use of protective clothing, personal hygiene which include hand washing after contact with animals or their waste, and sanitation measures prevent the transmission of the disease.
Campylobacter	<i>Campylobacter</i> species can be found in pet and laboratory animal species. Transmission to humans is by the fecal-oral route and can produce an acute enteritis. Symptoms include diarrhea, abdominal pain, fever, nausea, and vomiting.	<i>Prevention:</i> Use of personnel protective clothing, good personal hygiene, and sanitation measures will help to prevent the transmission of the disease.

Disease Name	Description	Prevention
RATES AND MICE		
Lymphocytic Choriomeningitis Virus	<p>Lymphocytic choriomeningitis virus infects wild mice world-wide and laboratory animal species including mice, hamsters and guinea pigs.</p> <p>Humans can be infected by inhalation and by contact with tissues or fluids from infected animals. Symptoms include fever, myalgia, headache and malaise. More severe symptoms can occur such as lymphadenopathy, meningoencephalitis and neurologic signs.</p>	<p><i>Prevention:</i> Serologic surveillance of animal colonies at risk and screening of all tumors and cell lines intended for animal passage will help to prevent LCM. Personnel should wear gloves when handling animals and practice appropriate personnel hygiene which includes hand washing.</p>
Hantavirus Pulmonary Syndrome	<p>Hantavirus Pulmonary Syndrome is a virus occurring throughout most of North and South America. The disease spreads through breathing in dust that is contaminated with rodent urine or droppings, direct contact with rodents or their urine and droppings, and bite wounds, although this does not happen frequently. The rodents include Deer mouse (<i>Peromyscus maniculatus</i>), Cotton rat (<i>Sigmodon Hispidus</i>), Rice rat (<i>Oryzomys palustris</i>), White-footed mouse (<i>Peromyscus leucopus</i>).</p>	<p><i>Prevention:</i> eliminate or minimize contact with rodents in your home, workplace, or campsite.</p>
Leptospirosis	<p>Leptospirosis is widely distributed in domestic and wild animals. The possibility of transmission to humans from most animal species maintained in the laboratory should be considered but livestock and dogs would be the most common reservoirs. Transmission of the organism to humans can occur through skin abrasions and mucous membranes by contact with urine or tissues of animals infected with Leptospirosis. Inhalation or ingestion of organisms can also transmit the diseases. Disease can vary from asymptomatic infection to severe disease ranging from flu-like symptoms to liver and kidney failure, encephalitis, and pulmonary involvement.</p>	<p><i>Prevention:</i> Control of this infection in laboratory animal populations along with use of protective clothing and gloves by persons working with and caring for infected animals will help prevent disease.</p>
Rat-Bite Fever	<p>Rat-bite fever is caused by <i>Streptobacillus moniliformis</i> or <i>Spirillum mino.</i>, These organisms are in the respiratory tracts and mouths of rodents, especially rats. Most human infections are the result of a bite wound.</p>	<p><i>Prevention:</i> Animals need to be handled properly to prevent bites.</p>

Disease Name	Description	Prevention
Campylobacter	Symptoms include chills, fever, malaise, headache and muscle pain. A rash can develop along with painful joints, abscesses, endocarditis, pneumonia, hepatitis pyelonephritis, and enteritis. <i>Campylobacter</i> species can be found in pet and laboratory animal species. Transmission to humans is by the fecal-oral route and can produce an acute enteritis. Symptoms include diarrhea abdominal pain, fever, nausea, and vomiting.	<i>Prevention:</i> Use of personnel protective clothing, good personal hygiene, and sanitation measures will help to prevent the transmission of the disease.

Source: Centers for Disease Control and Prevention, 2011.

In a report released on June 27, 2013 by the Department of Pesticide Regulation (DPR), the California Department of Fish and Wildlife (CDFW) requested that the DPR designate all second generation anticoagulant rodenticides as restricted materials due to secondary poisoning of wildlife (Department of Pesticide Regulation 2013). To reduce impacts to surrounding wildlife, mitigation shall be applied to the proposed project which will require the owner to hire a biologist to complete a Pest Management Plan. The plan shall make recommendations for addressing both pest-birds and rodents.

In addition to mitigation, the proposed project would also be required to comply with the California Health and Safety Code, California Retail Food Code, Part 7. California Retail Food Code, Effective January 1, 2012. The code requires certain safety, building, and food handling predicts. Section 113947.1 will require the owner to become certified as follows:

- a. Food facilities that prepare, handle, or serve non-prepackaged potentially hazardous food, except temporary food facilities, shall have an owner or employee who has successfully passed an approved and accredited food safety certification examination as specified in Sections 113947.2 and 113947.3. There shall be at least one food safety certified owner or employee at each food facility. No certified person at a food facility may serve at any other food facility as the person required to be certified pursuant to this subdivision. The certified owner or employee need not be present at the food facility during all hours of operation.
- b. Food facilities that are not subject to the requirements of subdivision (a) that prepare, handle, or serve non-prepackaged, non-potentially hazardous foods, except temporary food facilities, shall do one of the following:
 1. Have an owner or employee who has successfully passed an approved and accredited food safety certification examination as specified in Sections 113947.2 and 113947.3.
 2. Demonstrate to the enforcement officer that the employees have an adequate knowledge of food safety principles as they relate to the specific operation involved in their assigned duties.

- c. On and after July 1, 2007, temporary food facilities that prepare, handle, or serve non-prepackaged food shall have an owner or person in charge who can demonstrate to the enforcement officer that he or she has an adequate knowledge of food safety principles as they relate to the specific food facility operation.
- d. For the purposes of this section, multiple contiguous food facilities permitted within the same site and under the same management, ownership, or control shall be deemed to be one food facility, notwithstanding the fact that the food facilities may operate under separate permits.
 - 1. This subdivision shall not apply to the premises of a licensed winegrower or brandy manufacturer utilized for wine tastings conducted pursuant to Section 23356.1 of the Business and Professions Code of wine or brandy produced or bottled by, or produced and prepackaged for, that licensee when use is limited to wine tasting.
- e. A food facility that commences operation, changes ownership, or no longer has a certified owner or employee pursuant to this section shall have 60 days to comply with this subdivision.
- f. The responsibilities of a certified owner or employee at a food facility or an owner or person in charge of a temporary food facility described in subdivision (c) shall include the safety of food preparation and service, including ensuring that all employees who handle, or have responsibility for handling, non-prepackaged foods of any kind, have sufficient knowledge to ensure the safe preparation or service of the food, or both. The nature and extent of the knowledge that each employee is required to have may be tailored, as appropriate, to the employee's duties related to food safety issues.
- g. The food safety certificate issued pursuant to Section 113947.3 shall be retained on file at the food facility at all times, and shall be made available for inspection by the enforcement officer.
- h. Certified individuals shall be recertified every five years by passing an approved and accredited food safety certification examination.
- i. A food safety program that was not in effect prior to January 1, 1999, shall not be enacted, adopted, implemented, or enforced, unless the program fully conforms to the requirements of this part.

The owner will also have to follow other safety measures which require compliance with local building codes. The California Retail Food Code can be reviewed by the owner at <http://www.cdph.ca.gov/services/Documents/fdbRFC.pdf>.

Conclusion: In summary, the proposed project would have to submit a Hazardous Materials Business Plan to the Stanislaus County Environmental Resources Department for the 500-gallon fuel storage tank. Other chemicals such as fertilizers which exceed the thresholds listed before would also have to be included in the plan. Therefore those impacts would be *less than significant*.

According to the Phase I/Phase II ESA, areas in and around the barn/packing shed need to be resurfaced for health reasons.

Other hazards that could jeopardize the health of workers and consumers who will be purchasing produce (melons and sweet potatoes), could become ill from disease carried by birds and/or rats and mice. However, with Mitigation Measure 3.8-2a and 3.8-2b incorporated, and compliance with the California Retail Food Code, impacts would be *less than significant*.

Mitigation Measure #3.8-2a: During construction of the proposed project, work areas and areas with heavy foot traffic inside the eastern, unpaved portion of the barn/packing shed shall be surfaced to reduce worker exposure to dust in this area, where concentrations of 4,4'-DDT (2,600 micrograms per kilogram [ug/kg]) and 4,4'-DDD (240 ug/kg) were detected in soil.

Mitigation Measure #3.8-2b: Before building permit issuance, the owner shall hire a biologist to complete a Pest Management Plan which will make recommendations for addressing both pest-birds and rodents inside and around the warehouse. The plan shall be submitted to the Stanislaus County Environmental Health Department and made available to employees at the warehouse.

Effectiveness of Mitigation: The above mitigation measures would reduce hazardous health conditions both caused from dust conditions and pest-birds and rodents that may affect workers, consumers, and wildlife. A *less than significant* impact would occur with mitigation applied.

Impact #3.8-3 – Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

The project site is served by the Turlock Unified School District. The nearest school to the project site is John B. Allard School, which is located 2.4 miles southeast of the project's southeastern boundary. Other schools in the vicinity include Cunningham Elementary School, 4.9 miles southeast of the project's southeastern boundary, and Turlock High School, 5.1 miles east of the project's eastern boundary.

Conclusion: The proposed project is over 2 miles from the closest school. Impacts would be *less than significant*.

Mitigation Measures: No mitigation measures are required.

Impact #3.8-4 – Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.

Government Code Section 65962.5 requires the Department of Toxic Substances Control, the State Department of Health Services, the State Water Resources Control Board, and the California Integrated Waste Management Board to compile and annually update lists of hazardous waste sites and land designated as hazardous waste property throughout the state. The Secretary for Environmental Protection consolidates the information (also known as the "Cortese

List”) submitted by these agencies and distributes it to each city and county where sites on the lists are located (California Environmental Protection Agency 2007).

According to the California Department of Toxic Substances Control’s Cortese List, there are 12 hazardous waste and substances sites listed within 5 miles of the proposed project site. Table 3.8-3 includes each site as identified on the Cortese List as well as the status, project type, address, and distance from the proposed project site.

**Table 3.8-3
List of Hazardous Waste and Substances Sites
Within 5 Miles of the Proposed Project Site**

Project Name	Status	Project Type	Address	City	Distance From Proposed Project Site
John H. Pitman High School	No Further Action	School Investigation	2631 West Zeering Road	Turlock	1.8
Alternative Education School Site	Inactive-Needs Evaluation	School Investigation	400 Dianne Drive	Turlock	2.2
Banquet Foods	Certified	State Response	107 S Kilroy Road	Turlock	2.5
Turlock Rehab Center	Inactive-Needs Evaluation	Military Evaluation	-	Turlock	3.0
U.S. Rentals	Refer: Other Agency	Evaluation	2800 North Golden State Blvd.	Turlock	3.1
Turlock Cleaners	Refer: RWQCB	Evaluation	429 East Main Street	Turlock	3.6
Durite Cleaners	Refer: Other Agency	Evaluation	141 North Center Street	Turlock	3.7
Snow White Cleaners	Refer: RWQCB	Evaluation	352 East Olive Street	Turlock	3.8
Carr’s Cleaners	Refer: RWQCB	Evaluation	500 East Main Street	Turlock	4.0
So Cal Gas/Turlock	Active	Voluntary Cleanup	650 South Golden State Blvd.	Turlock	4.2
Walnut Elementary 2-Acre Addition	Certified	School Investigation	4219 North Walnut Avenue	Turlock	4.5
Walnut Avenue Elementary	No Further Action	School Investigation	South Walnut Road ¹	Turlock	4.8

Source: California Department of Toxic Substances Control, 2007.

Note: All measurements were taken in a straight line (or “as a crow flies”) from the proposed project site.

Note: - means no address is available.

Note: ¹Street number has been emitted as it does not match Google map.

As shown in the table, the proposed project site is not listed on the Cortese List. John H. Pitman High School, which is located at 2631 West Zeering Road, is the closest listing to the proposed project site (1.8 miles). The status of this site indicates that no further action is being taken. The So Cal Gas/Turlock site is the only site that is currently listed as active. It is located at 650 South Golden State Blvd. and is approximately 4.2 miles from the proposed project site. Two of the sites are inactive but need evaluation while 5 of the sites have been referred to other agencies. The Walnut Elementary 2-Acre Addition is the only site listed as certified.

Conclusion: The proposed project site is not on the California Environmental Protection Agency's Cortese List. Out of the 12 sites, the closest to the proposed project site is over a mile away. There would not be a significant hazard to the public or environment. Impacts would be *less than significant*.

Mitigation Measures: No mitigation measures are required.

Impact #3.8-5 – For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

Impact #3.8-6 – For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

Turlock Airpark is located approximately 4.8 miles northwest of the proposed project site. As mentioned in Section 3.8.2 of this Draft EIR, according to the Federal Aviation Administration the airpark is classified as private use only, with an activation date of July 1946. There are two runways identified as Runway 13 and 31 which measure 2,075 feet long by 60 feet wide with amber approach lights. There are no centerline or runway end identifier lights and no traffic control tower (Federal Aviation Administration 2013).

The Airport Land Use Commission Plan of 1978 lists the Turlock Airpark as one of four public and privately owned airports in Stanislaus County. These airports are facilities which the Airport Land Use Commission (ALUC) must: 1) establish airport land use planning boundaries; 2) develop airport land use plans within these boundaries; 3) recommend compatible land use within these boundaries and advise the appropriate jurisdictions on implementation; and, 4) make recommendations for height restrictions and building standards for soundproofing within the planning boundary. Specifically, the following recommendations have been made for the Turlock Airpark:

- Existing land use conflicts surrounding the Turlock Airpark consist of a road right-of-way, Greenway Avenue at the south end of the airport and Freeway 99 at the north end of the airport. Approximately one-third of the planning area is within the city limits of Turlock. Much of this area has been general planned and zoned for commercial, industrial, and low and medium density residential uses. The uses could pose some conflicts due to their close proximity to the airport runway. In addition, there are two schools in the approach patterns of the airport. These schools concentrate large numbers of small children and could also pose some problem to the airpark at a time in the future.
- The County general plan and zoning for the area is industrial, urban transition, and agricultural uses, with approximately one-half of the area within the "Agricultural" designation. It is recommended the "Agricultural" designation remain, as agricultural use tends to be the most compatible use surrounding an airport. It is also recommended the airport encourage the use of landing patterns which approach this airport from the south and patterns which take off towards the south, thereby avoiding the two schools and the existing medium and high density uses to the north.

When determining if a particular type of proposed use will be compatible with the ALUC's planning boundary, it is evaluated with the Airport Land Use Compatibility Listing which is included in the plan. The concept of the list is one delineating distinctive land use areas within the planning area and indicating additional restraints relative to conventional land use regulations, the result of which would be to impose additional restraints to applicable general plans and zoning.

In some areas, such as approach and climb-out extensions, noise and hazard were the primary conditions. In other areas only noise was considered to be a relevant factor. This Airport Land Use Compatibility listing divides the planning area into four separate categories:

1. Airport Building Areas: includes the terminal area, fixed base operator buildings, hangers, tie-down areas, parking areas and areas planned for such future uses;
2. Other Airport Property: land owned by the airport but not in use nor planned for use as building areas;
3. Approach and Transitional Surfaces: that area under the approach and take-off extensions and transitional surfaces as defined by the flight paths in use at the airport and Federal regulations. This area is primarily concerned with safety, but, by virtue of its location, noise can be a consideration; and
4. Other Land Within the Planning Area: lands within the planning areas with possible height and or noise problems envisioned in the future.

The following Airport Land Use Compatibility Listing, for land use areas on the Airport Land Use Compatibility Maps (found on pages 15 through 21) designates uses which are considered: (1) incompatible in a particular area (marked with an X); (2) compatible in a particular area (marked with an O); or, (3) conditionally compatible (marked with a C); where land could, with some conditions attached, be made a compatible land use. Where a C designation is given to a land use, the condition will be found on pages 24 through 29.

The proposed project site is over 2 miles away from the ALUC's planning boundary for the as shown on the Airport Land Use Compatibility Map on page 19 of the Airport Land Use Commission Plan. However, if it were to be the planning boundary, it would have been classified (2) compatible in a particular area (marked with an O) (Stanislaus County Planning Commission 2004).

Conclusion: The proposed project site is not within the ALUC's planning boundary. There would not be a significant hazard to the public or environment. Impacts would be *less than significant*.

Mitigation Measures: No mitigation measures are required.

Impact #3.8-7 – Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Responsibility for the day-to-day administration of Stanislaus County's disaster preparedness, mitigation, response, and recovery programs has been assigned to the Office of Emergency Services (OES) Division which is overseen by the Modesto Regional Fire Authority. The OES develops and maintains the Stanislaus County Emergency Operations Plan and its associated annexes. It also coordinates training, planning and exercises for first responders throughout the Stanislaus Operational Area (Modesto Regional Fire Authority 2012).

The OES maintains the Emergency Operations Center (EOC) in Modesto and the Alternate Emergency Operations Center in Ceres in partnership with Ceres Emergency Services. The EOC is the focal point for local coordination during a disaster. Both the Operational Area Council and the Disaster Council are facilitated by the OES.

A hazardous materials response team is also provided by the Modesto Regional Fire Authority (MRFA) which works with the surrounding fire agencies and the Stanislaus County Department of Environmental Resource. All personnel is certified at the Hazardous Materials Specialist level. The team members train monthly as a regional team as well as numerous times throughout the year with specialty classes to include Hazardous Materials Identification, Weapons of Mass Destruction and Nuclear and Biological training. All other companies throughout MRFA are trained to the Hazardous Material First Responder / Decontamination level. Members of the Haz-Mat team provide training and instruction through the Training Division (2012).

The proposed project's construction phase will include improvements along North Washington Road. Traffic signalization improvements will be installed to accommodate access to and from the site onto N. Washington Road. Additionally, the applicant will provide dedication and street improvements along the road as may be required by the City of Turlock. Improvements would include curb, gutter, street re-striping, and road widening to accommodate acceleration and deceleration lanes onto N. Washington Road. These improvements will likely include flag men that will direct traffic. Construction could potentially interfere with emergency response equipment. To lesson this impact, notification of the proposed project and construction dates will be sent to all local responders in the City of Turlock and to the OES.

Operation would have trucks hauling produce from the warehouse to distributors in southern California and in northern California, Oregon, and Washington. However, drivers would have to comply with the motor vehicle code that requires all vehicles to yield to emergency responders.

Conclusion: Construction activities that would likely require flagmen to direct traffic may interfere with emergency vehicles. To lesson this impact mitigation will have to be incorporated into the proposed project. With mitigation, impacts would be *less than significant*.

Mitigation Measure #3.8-7: The applicant shall notify the City of Turlock's fire, sheriff, and ambulance service which serve the proposed project site, as well as the Office of Emergency Services (OES) Division (Modesto Regional Fire Authority) of the proposed project and construction dates. This notification shall occur two weeks prior to the start of construction.

Impact #3.8-8 – Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Stanislaus County's Multi-Jurisdictional Hazard Mitigation Plan Updated 2010 addresses and provides mitigation for the following hazards: earthquakes, landslides, dams, floods, and wildfires. According to the plan:

Generally from May to October of each year, Stanislaus County experiences its wildfire season. Most of the fire susceptible areas are located in the extreme eastern and western portion of the County. This is due to the underdeveloped, rugged terrain and the highly flammable, grass and brush covered land. Within Stanislaus County, the areas of potential brush fires are the Diablo Range, generally located west of Interstate 5, and the Sierra Nevada foothills in the eastern portions of the County. The urban areas of Stanislaus County are not normally susceptible to wildfires, however, there is still potential for smaller fires in and around the less developed areas where patches of vegetation are present (Stanislaus County 2006).

The proposed project site is clear of brush and tall grasses which would normally be fuels for fire. If a fire would occur during operation of the proposed project, the closest responder would be the City of Turlock's Fire Station #2. Station #2 is located at 791 South Walnut Road, which is approximately 3.1 miles from the proposed project site. Turlock Rural Fire Department located at 690 West Canal Drive, and Turlock Fire Department located at 156 South Broadway Street is also nearby.

Conclusion: Impacts would be *less than significant*.

Mitigation Measures: No mitigation measures are required.

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3.9 Hydrology/Water Quality

This section provides an evaluation of the potential hydrology and water quality impacts that would be caused by implementation of the proposed project. The discussion starts with an overview of regulation that is normally applicable to the hydrology and water quality environmental factor, followed by a description of the physical setting of both the site and surrounding lands. An analysis is then provided to determine whether the impact(s) would be less than significant, significant without mitigation, or significant and unavoidable. If an impact is significant and can be reduced with mitigation, then a description of the mitigation measure(s) is provided.

3.9.1 REGULATORY SETTING

Federal

FEDERAL WATER POLLUTION CONTROL ACT

The federal Water Pollution Control Act also known as the Clean Water Act (CWA) is the principal statute governing water quality. The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and gives the United States Environmental Protection Agency (EPA) the authority to implement pollution control programs, such as setting wastewater standards for industry. The statute's goal is to end all discharges entirely and to restore, maintain, and preserve the integrity of the nation's waters. The CWA regulates both the direct and indirect discharge of pollutants into the nation's waters, sets water quality standards for all contaminants in surface waters, and makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit is obtained under its provisions. It mandates permits for wastewater and storm water discharges, requires states to establish site-specific water quality standards for navigable bodies of water, and regulates other activities that affect water quality, such as the dredging and filling of wetlands.

Section 402(p) of the act requires that storm water associated with industrial activity that discharges either directly to surface waters or indirectly through municipal separate storm sewers must be regulated by a National Pollutant Discharge Elimination System (NPDES) permit. On December 8, 1999, the EPA circulated Phase II regulations for non-point sources requiring permits for storm water. Permits are required for discharges from Small Municipal Separate Storm Sewer System (MS4s) operators. In California, the NPDES Program is administered by the State.

SAFE DRINKING WATER ACT

The federal Safe Drinking Water Act (SDWA) provides regulations for drinking water quality. The SDWA gives the EPA the authority to set drinking water standards, such as the National Primary Drinking Water regulations (NPDWRs or primary standards). The NPDWRs protect drinking water quality by limiting the levels of specific contaminants that are known to occur or have the potential to occur in water and can adversely affect public health. All public water systems that provide service to 25 or more individuals are required to satisfy these legally enforceable standards. Water purveyors must monitor for these contaminants on fixed schedules and report to the EPA when a maximum contaminant level (MCL) has been exceeded. MCL is

the maximum permissible level of a contaminant in water that is delivered to any user of a public water system. Drinking water supplies are tested for a variety of contaminants, including organic and inorganic chemicals (e.g., minerals), carcinogens, radionuclides (e.g., uranium and radon), and microbial contaminants (e.g., coliform and Escherichia coli). Changes to the MCL list are typically made every three years, as the EPA adds new contaminants or, based on new research or new case studies, revised MCLs for some contaminants are issued. The California Department of Health Services, Division of Drinking Water and Environmental Management, is responsible for implementation of the SDWA in California.

FEDERAL EMERGENCY MANAGEMENT AGENCY

Floodplain zones are determined by the Federal Emergency Management Agency (FEMA) and used to create Flood Insurance Rate Maps (FIRMs) designating flood areas. These tools assist cities in mitigating flooding hazards through land use planning and building permit requirements. To address the need for insurance to cover flooding issues, FEMA administers the National Flood Insurance Administration (NFIA) program. The NFIA program provides federal flood insurance and federally financed loans for property owners in flood prone areas. The 100-year floodplain is the area that has a statistical probability of being flooded every 100 years. To qualify for federal flood insurance, a city must identify flood hazard areas and implement a system of protective controls.

State

ARTICLE X OF THE CALIFORNIA CONSTITUTION

This law prohibits the waste and unreasonable use of water. Section 2 of the law specifically states:

It is hereby declared that because of the conditions prevailing in California the general welfare requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The right to water or to the use or flow of water in or from any natural stream or water course in California is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water. Riparian rights in a stream or water course attach to, but to no more than so much of the flow thereof as may be required or used consistently with this section, for the purposes for which such lands are, or may be made adaptable, in view of such reasonable and beneficial uses; provided, however, that nothing herein contained shall be construed as depriving any riparian owner of the reasonable use of water of the stream to which the owner's land is riparian under reasonable methods of diversion and use, or as depriving any appropriator of water to which the appropriator is lawfully entitled. This section shall be self-executing, and the Legislature may also enact laws in the furtherance of the policy in this section contained.

AGRICULTURAL WATER MANAGEMENT PLANNING ACT

Under this act, agricultural water suppliers supplying more than 50 thousand acre-feet of water annually were required to submit a report to the Department of Water Resources (DWR) indicating whether a significant opportunity exists to conserve water or reduce the quantity of highly saline or toxic drainage water through improved irrigation water management. The act provides that agricultural water suppliers who indicate that they have an opportunity to conserve water or reduce the quantity of highly saline or toxic water should prepare a water management plan and submit it to the DWR.

AGRICULTURAL WATER SUPPLIERS EFFICIENT MANAGEMENT PRACTICES ACT

The Agricultural Water Suppliers Efficient Management Practices Act, adopted in 1990, requires that DWR establish an advisory committee to review efficient agricultural water management practices. Under the act, DWR is required to offer assistance to agricultural water suppliers seeking to improve the efficiency of their water management practices. The advisory committee developed a Memorandum of Understanding to implement the practices and to establish an Agricultural Water Management Council. The advisory committee adopted the MOU in October 1996. The MOU was declared in effect in May 1997 after 15 agricultural water suppliers, representing 2 million irrigated acres, had signed. The Council was established and held its first meeting in July 1997. The Council consists of members of the agricultural and environmental communities and other interested parties with the expressed goal for water suppliers to voluntarily develop Water Management Plans and implement Efficient Water Management Practices (EWMPs) to further advance water use efficiency while maintaining and enhancing economic, environmental and social viability and sustainability of soil and crop production.

AGRICULTURAL WATER CONSERVATION AND MANAGEMENT ACT OF 1992

This act gives any public agency that supplies water for agricultural use authority to institute water conservation or efficient management programs. The programs can include irrigation management services, providing information about crop water use, providing irrigation consulting services, improving the supplier's delivery system, providing technical and financial assistance to farmers, encouraging conservation through pricing of water, and monitoring (AB3616, Statutes of 1992).

WATER RECYCLING ACT OF 1991

This act describes the environmental benefits and public safety of using recycled water as a reliable and cost-effective method of helping to meet California's water supply needs. It sets a statewide goal to recycle 700 thousand acre-feet per year by the year 2000 and 1 million acre-feet per year by 2010.

CALIFORNIA'S WATER CODE SECTION 375

Allows any public entity that supplies water to adopt and enforce a water-conservation program that requires the installation of water-saving devices.

ASSEMBLY BILL 1881

Assembly Bill 1881 requires water conservation measures associated with development landscaping be implemented by local agencies having responsibility for development approval. Stanislaus County requires a Landscape and Irrigation Plan be submitted as part of an application for a land use entitlement, for new development, and the significant expansion or redevelopment of an existing use as determined by the director. All landscape and irrigation plans shall be prepared in compliance with applicable county or city ordinances regarding water efficient landscaping for new construction and development. (Ord. CS 832 Exh. A, 2003).

According to the Westside Industrial Specific Plan (WISP), the Turlock Zoning Ordinance requires that "All land area within the public right-of-way adjoining all sides of any parcel or building site that is not otherwise covered with a building, structure, paving, or similar impervious surface shall be landscaped and maintained in conjunction with the landscaping installed on the adjoining property as regulated in this Article". (Section 9-2-109 (e)(8)).

These development standards supplement the Zoning Ordinance standards with distinct streetscape features in the Plan Area.

REGIONAL WATER QUALITY CONTROL BOARD

The State's Porter-Cologne Water Quality Control Act outlines the responsibilities of the Regional Water Quality Control Boards (RWQCB) and the procedures for coordinating with the state Water Quality Control Board (SWQCB) to meet federal CWA standards. Stanislaus County falls within the Central Valley Region, which is the largest in California, stretching from the Oregon border south to Los Angeles County. It encompasses 60,000 square miles, or about 40 percent of the State's total area, and includes 38 of California's 58 counties.

The Central Valley Regional Water Quality Control Board (CVRWQCB) headquarters are in Sacramento with branch offices in Fresno and Redding. The CVRWQCB mission is to "preserve and enhance the quality of California's water resources for the benefit of present and future generations." This duty is carried out by formulating and adopting water quality control plans for specific ground and surface water basins and by prescribing and enforcing requirements on waste discharges. As mentioned above, jurisdictions submit various water quality and storm water plans to the regional and State boards for approvals.

STATE WATER RESOURCES CONTROL BOARD

The State Water Resources Control Board (SWRCB) is responsible for implementing the CWA and does so through issuing NPDES permits to cities and counties through regional water quality control boards. Federal regulations allow two permitting options for storm water discharges,

individual permits and general permits. The SWRCB elected to adopt a statewide general permit (Water Quality Order No. 2003-0004-DWQ) for MS4s covered under the CWA to efficiently regulate numerous storm water discharges under a single permit. Permit applicants must meet the requirements in Provision D of the General Permit, which requires development and implementation of a Storm Water Management Plan (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable.

Pursuant to the CWA, in 2001, the SWRCB issued a statewide general NPDES Permit for stormwater discharges from construction sites (NPDES No. CAS000002); it was updated in 2010. Under this Statewide General Construction Activity permit, discharges of stormwater from construction sites with a disturbed area of one or more acres are required to either obtain individual NPDES permits for stormwater discharges or to be covered by the General Permit. Each permit must list Best Management Practices (BMPs) to be implemented on the construction site to protect stormwater runoff and must contain a visual monitoring program, a chemical monitoring program for nonvisible pollutants to be implemented if there is a failure of BMPs; and a monitoring plan if the site discharges directly to a water body listed on the state's 303(d) list of impaired waters. Updated regulations (July, 2010), further define the Board's stormwater discharge permit requirements.

Local

STANISLAUS COUNTY

General Plan

Pursuant to California Code Title 14, Section 65300 the 1994 Stanislaus County General Plan addresses hydrology in several of its elements including its Safety Element, Land Use Element, Conservation and Open Space Element, and Agriculture Element. The plan also includes local, regional, State, and federal programs and regulations as well as a comprehensive set of guiding and implementing policies. The following policies are applicable to the proposed project site:

SE: Policy Two: Development should not be allowed in areas that are within the designated floodway. (Comment: The FEMA has developed floodway maps which identify areas prone to flooding.);

LU: Policy Twenty: Two-Future growth shall not exceed the capabilities/capacity of the provider of services such as sewer, water, public safety, solid waste management, road systems, schools, health care facilities, etc.;

CON/OS: Policy Five: Protect groundwater aquifers and recharge areas, particularly those critical for the replenishment of reservoirs and aquifers;

CON/OS: Policy Seven: New development that does not derive domestic water from pre-existing domestic and public water supply systems shall be required to have a documented water supply that does not adversely impact Stanislaus County water resources;

CON/OS: Policy Nine: The County will investigate additional sources of water for domestic use;

AG: Policy 3.4: The County shall encourage the conservation of water for both agricultural and urban uses; and

AG: Policy 3.5: The County will continue to protect the quality of water necessary for crop production and marketing.

Stanislaus County Code

The Stanislaus County Code Title 11, Chapters 16.50 and 16.05 govern certain activities throughout the county that are related to the hydrology section of this report. The proposed project's construction phases would include building a 180,000 square foot warehouse for the storage of produce and related infrastructure. Compliance with the following regulations will be required:

Title 16, Chapter 16.50 Flood Damage Prevention; and
Title 16, Chapter 16.05 Building Code.

North Washington Road is in the City of Turlock's WISP limits and designated as an expressway in the City's General Plan. Consequently, the proposed project will also be subject to the City of Turlock's WISP. The next section provides an overview of applicable regulations.

CITY OF TURLOCK

Westside Industrial Specific Plan

As previously mentioned, the North Washington Street right-of-way is in the Turlock city limits. The road is classified as an expressway in the Turlock General Plan. In addition to landscape screening for onsite parking areas, frontage improvements including curb, gutter, and sidewalk will be required along with a right turn lane into the project site. The proposed driveway would be aligned with the new traffic signal into the Blue Diamond facility on North Washington Road. All of these activities would generate traffic and be directly related to hydrology issues. Compliance with the WISP will include the following policies:

UD-P 1: Storm water management, (and detention basins, where necessary) shall be included in the site design for each development;

UD-P 3: The use of grassy swales and other best management practices are encouraged to filter storm water;

I-P- 37: New infrastructure systems shall be designed with consideration of life-cycle costs, and shall be innovative in conserving and recycling water and energy;

I-P 40: Encourage potable water conservation in site landscaping and streetscape landscaping;

I-P 46: The incorporation of grassy swales and other best management practices are encouraged to filter storm water;

R-P 5: Comply with the Uniform Building Code (UBC), Chapter 70, regulating grading activities including drainage and erosion control;

R-P 7: Comply with the Regional Water Control Board's regulations and standards to maintain and improve groundwater and surface water quality; and

R-P 10: The discharge of oil, gasoline, diesel fuel, or any other petroleum derivative, or any toxic chemical or hazardous water is prohibited.

Chapters 4, 5, and 6 of the WISP provide a detailed overview of the specific plan area including its infrastructure and services and land use objectives as related to hydrology. The plan can be accessed at the City of Turlock's website using the following path:

<http://www.ci.turlock.ca.us/pdfink.asp?pdf=documents/developmentservices/planning/guidelines/WISP.pdf?o=o&title=Westside%20Industrial%20Specific%20Plan>.

TURLOCK IRRIGATION DISTRICT

The Turlock Irrigation District (TID) owns and maintains more than 250 miles of gravity-fed canals and laterals serving over 4,900 irrigation customers covering approximately 150,000 acres of farmland. Among other services, the TID provides electric retail energy directly to homes, farms, and businesses. The various generating facilities include small and large hydroelectric, natural gas power plants, and wind and solar (Turlock Irrigation District 2013).

STANISLAUS COUNTY STORM WATER MANAGEMENT PROGRAM

According to the Stanislaus County Department of Public Works, the County has prepared a Storm Water Management Program (SWMP) that has been developed to meet the terms of the General Permit. The SWMP consists of the six minimum control measures established by SWRCB for Phase II storm water discharges. Implementation of these control measures are expected to result in significant reductions of pollutants discharged into receiving water bodies. The six control measures contained in the County's SWMP are summarized below.

Each control measure contains BMPs necessary for proper storm water management. The BMPs contain specific tasks to meet the objective of that control measure. This SWMP is intended to be a living document with BMPs added and deleted as new management practices arise and management practices are found not to work. A schedule for implementing each BMP is provided at the end of each section. The following provides a summary of each minimum control measure.

Section One – Public Education and Outreach on Storm Water Impacts Program

This measure is intended to ensure greater public support for the SWMP and greater compliance through education. An informed public can significantly contribute to the success of the program.

In general, the County is emphasizing education in the SWMP because it is a cost-effective BMP and is proactive in trying to reduce storm water pollutants rather than reactive by treating the storm water pollutants.

Section Two – Public Involvement/Participation Program

This measure is intended to provide opportunities for the public to play an active role in both the development and implementation of the SWMP. An active community is important to the success of the program. The BMPs in this section not only serve to involve the public, but also function to educate the public on the SWMP and related regulations.

Section Three – Illicit Discharge Detection and Elimination Program

This measure is intended to minimize illicit discharges into the storm sewer system. Illicit discharges are discharges that are not composed entirely of storm water. Storm sewer systems are not designed to accept process or discharge such non-storm water wastes. Minimizing these discharges can help to prevent high levels of pollutants from entering receiving waters.

Section Four – Construction Site Storm Water Runoff Control Program

This measure is intended to minimize polluted storm water runoff from construction activities. Construction activities can contribute significant levels of sediment to storm water runoff if erosion and sediment controls are not implemented.

Section Five – Post-Construction Storm Water Management in New Development and Redevelopment Program

This measure is intended to minimize the impact to storm water quality caused by development and redevelopment. The increase in impervious areas caused by development can cause an increase in the type and quantity of pollutants in storm water runoff. Prior planning and design to minimize pollutants in runoff from these areas is an important component to storm water quality management.

Section Six – Pollution Prevention/Good Housekeeping for Municipal Operations Program

This measure is intended to ensure a reduction in the amount and type of storm water pollutants by establishing routine activities in the operation and maintenance of municipal operations that address storm water runoff. Setting particular guidelines for source controls and materials management is an important component to storm water quality management.

TURLOCK GROUNDWATER MANAGEMENT PLAN

The Turlock Groundwater Management Plan is intended to provide a flexible, adaptive plan for achieving the overall goal that groundwater will continue to be a reliable, safe, efficient, and cost-effective water supply. The plan presents numerous potential actions that can be undertaken by local water agencies and coordinated through the Turlock Groundwater Basin Association (TGBA). The following measures are proposed as suggested management actions that the local agencies may draw from to achieve the Basin Management Objectives (BMO):

Management Objectives

1. Protection of natural recharge areas through mapping and identification, education of the public and planning entities, and encouraging the maintenance of land use practices that promote groundwater recharge.
2. Feasibility evaluation of artificial recharge projects, by building upon mapping efforts to protect natural recharge and investigating additional water supplies for percolation, and promoting in-lieu recharge.
3. Management and optimization of well field operations to reduce well interference, control the migration of contaminant plumes, and optimize supply blending programs.
4. Support of public health programs to protect water quality through proper well construction and destruction.
5. Water quality management, beginning with conducting a hydrogeologic assessment to identify contaminant sources and develop strategies to control the migration and movement of poor quality water into or within the Basin.
6. Continue the groundwater monitoring and subsidence monitoring program and evaluate the effectiveness of the groundwater level and quality monitoring programs as well as the database used to store and manipulate the data.
7. Provide a forum for policy assessment and coordination of regional programs with policy implications or requirements.
8. Continue promoting coordination and cooperation between water agencies on regional issues, outreach programs, and actions to implement the BMOs.
9. Identification and feasibility study of conjunctive use projects to increase supply flexibility and promote recharge in years when water is available.

The implementation of several of these recommended actions is contingent upon securing funding. Both grant funding and local funding options will be evaluated. Local funding may be especially important for grant eligibility because of matching or local contribution requirements. Availability of funding for groundwater management activities, as well as future regulatory

requirements, will influence the speed and level to which each of the measures is evaluated and implemented (Turlock Groundwater Basin Association, 2008).

3.9.2 PHYSICAL SETTING

Water Supply and Groundwater

No domestic water or wastewater services are proposed. All water will be obtained from wells on site and disposed of on site. Water for processing of produce and other uses (e.g., employee sinks and toilets) will be obtained from private wells on the site. A septic leachfield system will be used to dispose of wastewater from employee sinks and toilets.

According to the 2008 Turlock Groundwater Management Plan, this portion of Stanislaus County draws its groundwater supply from the Turlock Subbasin which is a subunit of the San Joaquin Valley Groundwater Basin. The Turlock Subbasin lies in the eastern portions of Stanislaus and Merced counties and has an aerial extent of approximately 347,000 acres. As described above, the subbasin is bounded by the Tuolumne River to the north, the Merced River to the south, the San Joaquin River to the west, and by crystalline bedrock of the Sierra Nevada foothills to the east. Groundwater supplies municipal, industrial, and agricultural demands of the region. Surface water from the Tuolumne River, and to a lesser extent the Merced River, supplies a large proportion of agricultural irrigation demands within the Turlock Subbasin. The following sections summarize the subbasin hydrogeology, water balance, and water quality issues described in the Groundwater Management Plan.

A water balance study of the Turlock Subbasin was prepared in 2003 and updated in 2007 to estimate the inflows and outflows from the subbasin between 1952 and 2006. Outflows from the subbasin result from municipal, domestic, and agricultural supply and drainage well pumping, discharge to the local rivers, discharges from subsurface agricultural drains, and consumption by riparian vegetation. The estimated average total outflow for the 1997-2006 period is 541,000 af/yr. The majority of outflow comes from estimated agricultural, municipal and rural residential, and drainage well pumping, which collectively averaged 457,000 af/yr for the 1997- 2006 period.

Inflows to the subbasin result primarily from deep percolation of agricultural and landscape irrigation water and infiltration of precipitation. The estimated average total inflow for the 1997-2006 period is 519,000 af/yr. Approximately 72 percent of this quantity occurs on 245,000 irrigated acres of cropland within the subbasin.

Most of the inflows and outflows can be estimated for the Turlock Basin. The net discharge to rivers is an unknown outflow and must be derived through a mass balance calculation of the known inflows, outflows, and storage change in the basin. Storage change is calculated from the groundwater contour maps derived from local monitoring data, and confirmed using the groundwater model.

The contour maps used in the water budget study indicate that estimated groundwater storage decreased by approximately 21,500 af/yr between 1997 and 2006. Recent reductions in the California Department of Water Resources (DWR) monitoring network have introduced uncertainty in the measurement of groundwater levels. Uncertainty in the estimated groundwater

elevation translates into uncertainty in storage estimates. Therefore, the magnitude and direction of changes in groundwater storage cannot be fully characterized through an analysis based solely on the groundwater contours. The Turlock Subbasin groundwater model was used to supplement the analysis and confirm that groundwater storage has decreased slightly in recent years, particularly between 2002 and 2006. The estimated reduction in storage between 2002 and 2006 suggests that the subbasin may no longer be in the equilibrium state that existed in the 1990s. Increases in land use types that rely on groundwater for supply have increased the net discharge from the subbasin. Slight decreases in storage are likely to continue if urban or irrigated land uses are developed in areas dependent upon groundwater.

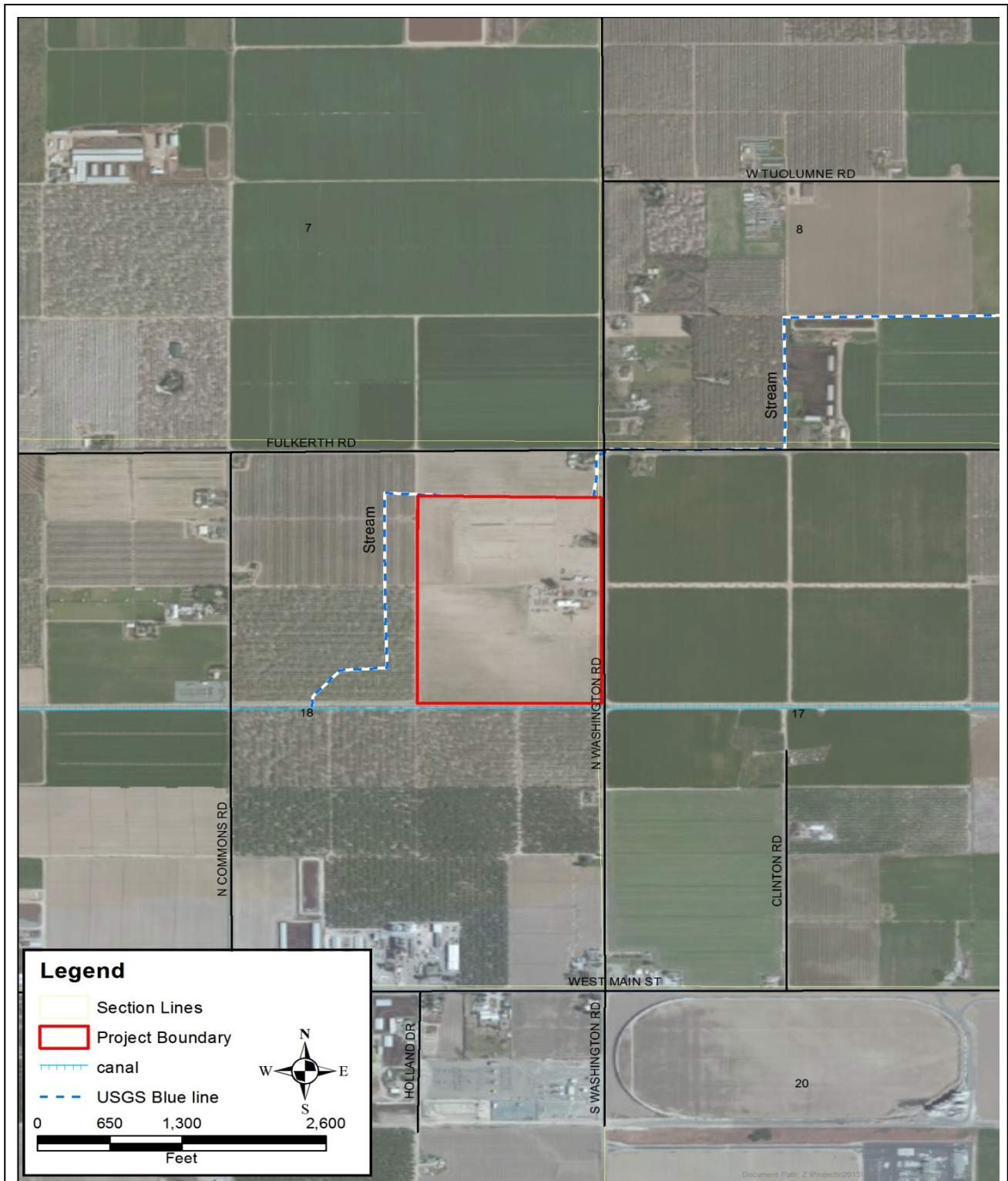
In any groundwater basin, groundwater storage will fluctuate both seasonally and annually, depending upon the water year classification, distribution of rainfall, and numerous other physical and biological factors. Alternating periods of decline and recovery in groundwater levels are a response to this natural variation. Long-term declines in storage without recovery could be a concern and represent net declines in storage. Continued monitoring by the local public agencies will be important for tracking changes in groundwater conditions and evaluating whether additional management actions should be considered. As part of the Association's goals and objectives, the Association should consider the need to evaluate changes in land use patterns to understand the range of potential impacts to the groundwater supply. The TGBA has initiated a study to evaluate future land use change scenarios and the potential impacts to groundwater resources. This study will help the Association understand how groundwater storage may change in the future and what types of management actions may be appropriate for maintaining adequate storage in the groundwater basin.

Deep percolation of irrigation water is the largest inflow to the groundwater basin and plays an important role in maintaining groundwater storage. Surface water from the Turlock Irrigation District, and to a lesser extent, the Merced Irrigation District is used to supply more than half of the total irrigation water applied within the Basin. Hence, under current conditions the continued use of surface water for agricultural irrigation is vital for sustaining recharge in the subbasin. Future changes to inflows or outflows resulting from shifts (Turlock Groundwater Basin Association, 2008).

Waterways surrounding the proposed project site include a canal which runs along its southern boundary, and a United States Geological Survey (USGS) blue line that runs along the northern boundary. The USGS blue line only appears on the map however, as no water is present. Figure 3.9-1 includes an aerial photo with the subject canal and blue line.

Water Quality

Groundwater quality in the Turlock Subbasin remains high throughout most of the region. Current knowledge indicates that salinity, nitrates, iron and manganese, boron, arsenic, radionuclides, bacteria, pesticides, trichloroethylene, and other trace organics have been found in the Turlock Subbasin. The U.S. Geological Survey, in coordination with numerous State and federal agencies, is conducting an extensive investigation of groundwater quality in the local area through the Groundwater Ambient Monitoring and Assessment Program. This study evaluates a broader range of constituents and will provide additional information on water quality issues in the subbasin.



WATERWAYS

Figure
3.9- 1

Some of the constituents described above and in detail in the Groundwater Management Plan occur naturally, while others have been introduced into groundwater from anthropogenic sources. Where the constituent concentrations have exceeded drinking water limitations, the municipal water purveyors have implemented actions ranging from wellhead protection to well closure to maintain viable supplies.

Protecting water quality is as important to maintaining the local groundwater supply as sustaining groundwater recharge. The Groundwater Management Plan is intended to create a framework for coordinating actions among different agencies with management authority to protect both the quality and quantity of groundwater resources (Turlock Groundwater Basin Association, 2008).

Drainage and Flood Control

Stormwater collected on site will be conveyed by culverts and surface flow to the runoff basin which is located approximately 130 feet from the proposed warehouse's southwest corner. The basin is shown on the site plan (See Figure 2.3-1). Stormwater would be disposed of through a combination of evaporation and absorption into the soil. In addition, stormwater may be recycled and used for irrigation.

Section 3.8 provides a discussion on the County's Multi-Jurisdictional Hazard Mitigation Plan Updated 2010. According to the plan, the FEMA recognizes that planning for future hazards in Stanislaus County can reduce impacts and thereby result in prevention of injury, loss of life and damage to our homes, businesses, and neighborhoods.

Hazard Mitigation is defined by FEMA as "any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards. The County's plan will serve as a tool for learning from disasters that have already occurred, so we can deal with them more effectively and efficiently with less expenditure than in the past" (Stanislaus County 2011).

3.9.3 IMPACT EVALUATION CRITERIA

Analysis Methodology

The methodology used for determining whether hydrology and water quality would be impacted by the proposed project included completing a literature review of regulation and reviewing online studies and plans from experts. Experts include federal, State, and local agencies and studies from those in the field of hydrology and water quality. This information was used to answer whether each of the thresholds of significance listed in the next paragraph would be exceeded. If impacts occur, then mitigation is applied in an attempt to reduce to less-than-significant levels. Where impacts still exceed thresholds after mitigation is incorporated, a finding of "significant and unavoidable" is concluded.

Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, air quality impacts resulting from the implementation of the proposed project would be considered significant if the project would:

- a) *Violate any water quality standards or waste discharge requirements.*
- b) *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).*
- c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.*
- d) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.*
- e) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.*
- f) *Otherwise substantially degrade water quality.*
- g) *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.*
- h) *Place within a 100-year flood hazard area structures which would impede or redirect flood flows.*
- i) *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.*
- j) *Inundation by seiche, tsunami, or mudflow.*

The next section provides an analysis and conclusions for each of the questions using the methodology listed before. Significant threshold questions may be included together under the same discussion when appropriate.

3.9.4 IMPACTS AND MITIGATION MEASURES

Impact #3.9-1 – Violate any water quality standards or waste discharge requirements.

Constituents found in urban runoff may degrade both surface water quality and eventually groundwater quality. Development of urban uses on the proposed project site would result in alteration in the existing site conditions and the introduction of urban pollutant sources. Urban runoff typically contains oils, grease, fuel, antifreeze, byproducts of combustion (such as lead, cadmium, nickel, and other metals) and other household pollutants. Precipitation early in the rainy season displaces these pollutants into storm water resulting in high pollutant concentrations in initial wet weather runoff. This initial runoff with peak pollutant levels can be referred to as the "first flush" of storm events.

The amount of runoff generated by the proposed project would be greater than the runoff occurring under existing conditions due to a significant increase in impervious surfaces. There would be a corresponding increase in urban runoff pollutants and "first flush" roadway contaminants such as heavy metals, oil, grease, as well as an increase in nutrients (i.e., fertilizers), and other chemicals from landscaped areas. These constituents will result in water quality impacts that have the potential to be significant.

Construction activities will include building a 180,000 square foot warehouse, 111 parking spaces, a milk barn and fruit stand, as well as making improvements along Washington Road. Requirements listed in Section 3.3 Air Quality of this Draft EIR will require additional measures to control onsite dust (Regulation VIII). A total of 33.9 acres would be disturbed. Consequently, the proposed project is subject to the requirements of the NPDES Permit adopted by the SWRCB. In order to be granted coverage, the applicant must submit a Notice of Intent to comply with the general permit along with a site plan map and fee to the SWRCB prior to starting construction. Additionally, as part of the NPDES process, the applicant must prepare a Storm Water Pollution Prevention Plan (SWPPP) according to the latest regulations (effective July 1, 2010) to be retained onsite. The SWPPP must include BMPs that, when implemented, prevent storm water quality degradation to the extent practical by preventing sediments and other pollutants from leaving the project site (United States Environmental Protection Agency 2013).

Conclusion: The applicant will be required to submit a SWPPP that will include BMPS for reducing runoff and degradation from polluted storm water run-off. With this requirement, impacts will be reduced to *less than significant*.

Mitigation Measure: No mitigation is required.

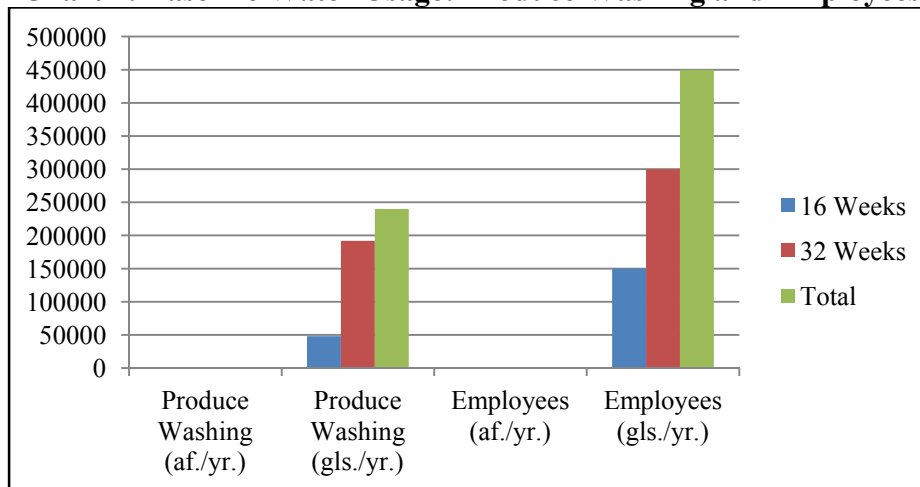
Impact #3.9-2 – Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

Impact #3.9-6 – Otherwise substantially degrade water quality.

Water would be obtained from two on-site wells. One well used for irrigation produces approximately 800 gallons per minute (gpm), while the domestic well produces 25 gpm. An enzyme biological agent would likely be added to the wash water. Wastewater from washing operations would be conveyed to the retention basin on the site and allowed to dissipate through evaporation and percolation, or it would be recycled and used for irrigation. No domestic water or wastewater services are proposed. A septic leach field system would be used to dispose of wastewater from employee sinks and toilets.

During summer, up to 3,000 gallons per week of water would be required for washing of produce. During other times of the year up to 6,000 gallons per week would be used. Specifically, water demand for washing produce between the months of June and September (approximately 16 weeks) would equal 48,000 gallons or 0.15 acre feet. During the remaining months from October to May (32 weeks), an additional 192,000 gallons or 0.59 acre feet of water would also be used for washing produce. A maximum of 75 employees would be on site at any given time. Water usage for employees was based on a worksheet for assessing baseline water consumption for factories (North Carolina Department of Natural Resources 2009). Each employee would use approximately 25 gallons of water per day, or 125 gallons per week. A total of 75 employees would use 9,375 gallons per week. Therefore, between the months of June and September (approximately 16 weeks), 150,000 gallons or 0.46 acre feet of water would be used by all 75 employees, and 300,000 gallons or 0.92 acre feet would be used from October to May (32 weeks). This would bring the total water usage from both washing produce and employee usage for 16 weeks to 240,000 gallons or 0.74 acre feet, and 450,000 gallons or 1.38 acre feet for 32 weeks. Therefore the total water usage per year will be 690,000 gallons or 2.12 acre feet. Chart 1 provides a visual representation of the usage for the 16 and 32 week periods.

Chart 1: Baseline Water Usage: Produce Washing and Employees



Source: Avila and Sons 2013, North Carolina Department of Natural Resources, 2009.
 Note: af.=acre feet, yr.=year, gls.=gallons.

As mentioned in Section 3.9.2, the 2008 Turlock Groundwater Management Plan, Stanislaus County estimated groundwater storage decreased by approximately 21,500 af/yr between 1997 and 2006 in the Turlock Subbasin. Modeling further confirmed that groundwater storage has

decreased slightly in recent years suggesting that the subbasin may no longer be in the equilibrium state that occurred in the 1990s. This is thought to be linked to land use types that rely on groundwater for supply which have increased the net discharge from the subbasin. Slight decreases in storage are likely to continue if urban or irrigated land uses are developed in areas dependent upon groundwater. However, the plan also notes that groundwater storage will fluctuate both seasonally and annually. Alternating periods of decline and recovery in groundwater levels are a response to this natural variation. Long-term declines in storage without recovery could be a concern and represent net declines in storage. Continued monitoring by the local public agencies will be important for tracking changes in groundwater conditions and evaluating whether additional management actions should be considered.

The largest inflow to the groundwater basin is deep percolation of irrigation water which plays an important role in maintaining groundwater storage. Surface water from the Turlock Irrigation District, and to a lesser extent, the Merced Irrigation District is used to supply more than half of the total irrigation water applied within the basin. Hence, under current conditions the continued use of surface water for agricultural irrigation is vital for sustaining recharge in the subbasin.

Conclusion: Water shortage in the Turlock Subbasin remains unsure and local jurisdictions have been advised to continue monitoring to track water levels and conditions. Results from monitoring will determine whether additional management actions should be considered. The proposed project would use approximately 2.12 acre feet of water per year. However, some of this water will be used for agricultural irrigation which will contribute to recharging the subbasin. According to the 2008 Turlock Groundwater Management Plan, this is vital for sustaining recharge in the subbasin. Therefore, potential adverse impact on groundwater due to the proposed project is assumed to be *less than significant*.

Mitigation Measures: No mitigation measures are required.

Impact #3.9-3 – Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-site.

Impact #3.9-4 – Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

Impact #3.9-5 – Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

The project site is relatively flat. Runoff from precipitation currently percolates into the ground or drains into neighboring areas and eventually into drainage basins. According to the Natural Resources Conservation Service (NRCS) Web Soil Survey website, the soils on the project site have a ponding frequency class of "none" meaning that ponding is not probable; the chance of ponding is nearly 0 percent in any year. Due to the proposed project site's level terrain, existing

drainage patterns will not be altered in a manner which would result in substantial erosion, siltation or flooding on or off-site and watercourses (streams/rivers) do not exist within, or near, the proposed project site.

Development of the site will result in the addition of impervious surfaces in the form of a warehouse, parking area, and other concrete and asphalted areas. Based on submitted concept plans, the proposed project will result in the creation of up to 33.9 acres of new impervious surfaces. A minimal amount of impervious surfaces would also be constructed along North Washington Road during the road improvements.

As mentioned previously, the site will be graded the minimum amount required to facilitate collection and treatment of the majority of storm water on site. Similarly, proposed concrete and asphalt concrete areas will be graded and constructed to direct all run-off to the retention basin. Storm water collected on site would be conveyed by a combination of surface scales, culverts, and sheet flow to the retention basin. Mitigation Measure #3.9-5 will assure that before entering the retention basin, storm water would be filtered in accordance with BMPs. It will also require that the method of treatment and size of retention basin be determined prior to issuance of grading and building permits. Storm water would be disposed of through a combination of percolation into the soil and evaporation. In addition, storm water may be recycled and used for irrigation.

Storm water runoff along North Washington Road would be drained to the City of Turlock's drainage system. All improvements outside of the proposed site will have to comply with the City's WISP standards for drainage and water quality. The applicant will be required to submit a grading and drainage plan to the City of Turlock for approval which will show that the project will not endanger the structural integrity of underground storm water conveyance pipelines, or result in drainage patterns that will adversely affect the City's drainage system.

Conclusion: Compliance with the adopted regulations, which includes submitting a grading and drainage plan to the City of Turlock for improvements along North Washington Road, would reduce impacts to the City's drainage system. Mitigation Measure 3.9-5 would require that the applicant meet with the County for treatment and design of the retention basin. With regulations and mitigation applied, potential impacts associated with storm water drainage will be *less than significant*.

Mitigation Measure #3.9-5: Prior to issuance of grading and building permits, the applicant shall meet with the Stanislaus County Public Works Department to determine the appropriate BMPs for filtration of storm water and to determine the best method of treatment and required size of retention basin.

Impact #3.9-7 – Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

Impact #3.9-8 – Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

Impact #3.9-9 – Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

According to FEMA FIRM maps, and as shown in Figure 3.9-2, the 100-year Flood Zone is over 5 miles from the proposed project site. The FIRM map number for the site is 06099C0570E. The project site is located in Zone X which corresponds to areas outside the 100-year floodplain, areas of 100-year sheet flow flooding where average depths are less than one foot, areas of 100-year stream flooding where the contributing drainage area is less than one square mile, or areas protected from the 100-year flood by levees.

As mentioned previously, there is a canal which runs along the proposed site's southern boundary, and a USGS blue line that runs along the northern boundary. The USGS blue line only appears on the map however, as no water is present.

Conclusion: The proposed project will have no impact with regard to placing housing or structures in a 100-year flood zone. There are no levees or dams in the area. There is *no impact*.

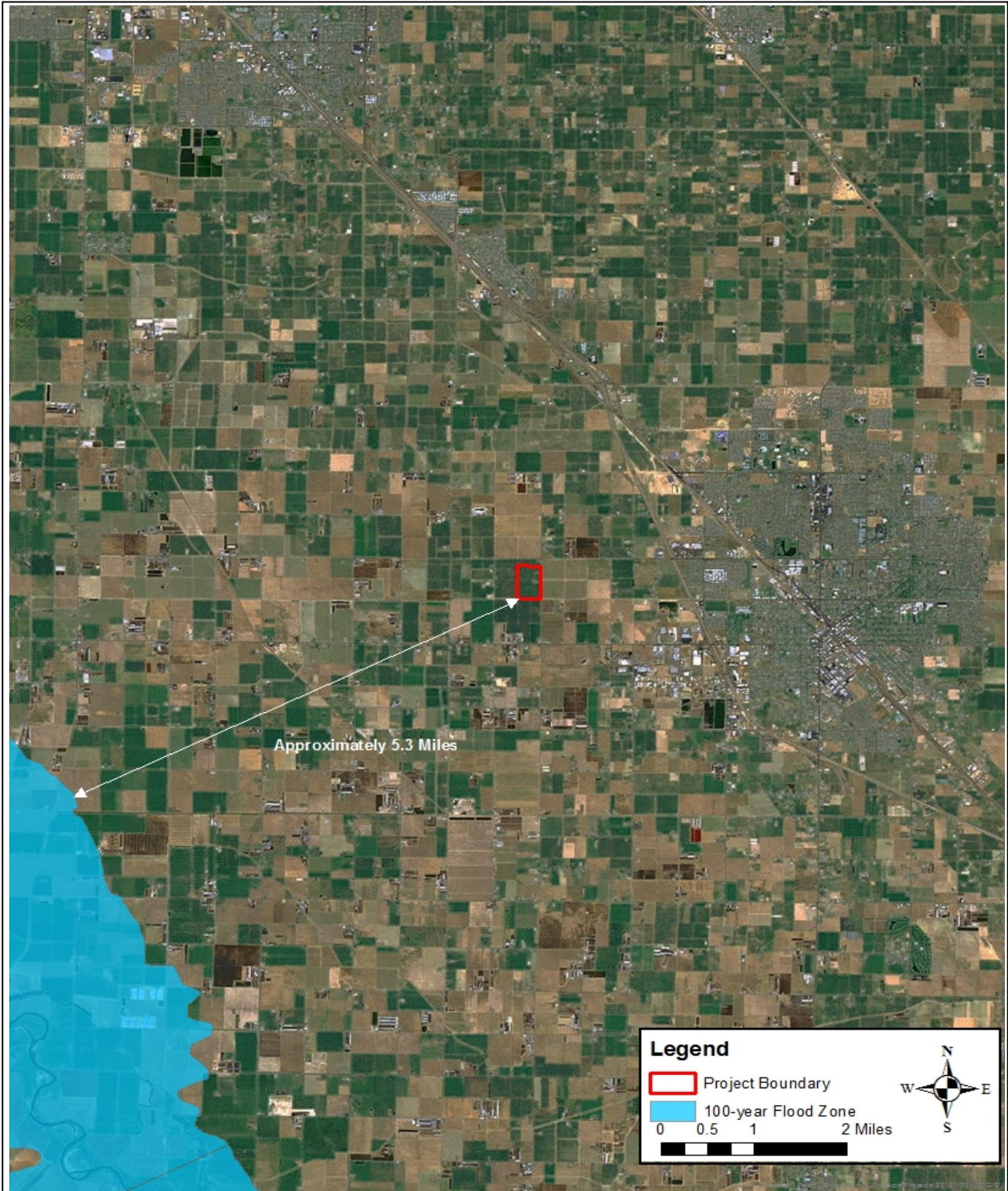
Mitigation Measures: No mitigation measures are required.

Impact #3.9-10 – Inundation by seiche, tsunami, or mudflow.

A tsunami is a series of ocean waves generated in the ocean by an impulsive disturbance. This disturbance includes earthquakes, submarine or shoreline landslides, volcanic eruptions, and explosions. Tsunamis are not a consideration as the proposed project sites are over 150.0 miles away from the Pacific Ocean, as measured in a straight line over several mountain ranges. The proposed project area is flat, eliminating the possibility of mudflow.

Conclusion: There is *no impact*.

Mitigation Measures: No mitigation measures are required.



100-YEAR FLOOD ZONE

Figure 3.9- 2

3.10 Land Use and Planning

This section provides an evaluation of the potential land use and planning impacts that would be caused by implementation of the proposed project. The discussion starts with an overview of regulation that is normally applicable to the land use and planning environmental factor, followed by a description of the physical setting of both the site and surrounding lands. An analysis is then provided to determine whether the impact(s) would be less than significant, significant without mitigation, or significant and unavoidable. If an impact is significant and can be reduced with mitigation, then a description of the mitigation measure(s) is provided.

3.10.1 REGULATORY SETTING

Federal

FARMLAND PROTECTION POLICY ACT

A National Agricultural Land Study conducted in the early 1980s found that millions of acres of farmland were being converted to other uses each year in the United States. As a result, Congress passed the Agriculture and Food Act of 1981, which contained the Farmland Protection Policy Act (FPPA). The purpose of the FPPA is to minimize the extent to which federal programs contribute to the irreversible conversion of farmland to non-agricultural uses, and to ensure that federal programs are administered in a manner that will be compatible with state, local, federal, and private programs and policies to protect farmland.

State

CALIFORNIA AIR RESOURCES BOARD

The California Air Resources Board (ARB) adopted the Air Quality and Land Use Handbook: A Community Health Perspective (Land Use Handbook) in 2005. The Land Use Handbook provides information and guidance on siting sensitive receptors in relation to sources of toxic air contaminants. The sources of toxic air contaminants identified in the Land Use Handbook are high-traffic freeways and roads, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and large gasoline dispensing facilities. If the project involves siting a sensitive receptor or source of toxic air contaminant discussed in the Land Use Handbook, siting mitigation may be added to avoid potential land use conflicts, thereby reducing the potential for health impacts to the sensitive receptors.

Regional

STANISLAUS COUNTY LOCAL AGENCY FORMATION COMMISSION

The Stanislaus County Local Agency Formation Commission (LAFCO) is responsible for developing and updating spheres of influence for each city within the county. Spheres are planning tools used to provide guidance for individual proposals involving jurisdictional changes, and are intended to encourage efficient provision of community services and prevent duplication of service delivery. One of the objectives of LAFCO is to preserve agricultural land

resources by considering the effects that proposals will have on agricultural lands. On September 26, 2012 the Stanislaus LAFCO Agricultural Preservation Policy was adopted. The goals of the policy include:

- Guide development away from agricultural lands where possible and encourage efficient development of existing vacant lands and infill properties within an agency's boundaries prior to conversion of additional agricultural lands;
- Fully consider the impacts a proposal will have on existing agricultural lands;
- Minimize the conversion of agricultural land to other uses; and
- Promote preservation of agricultural lands for continued agricultural uses while balancing the need for planned, orderly development and the efficient provision of services.

Local agencies are encouraged to identify the loss of agricultural land as early in their processes as possible, and to work with applicants to initiate and execute plans to minimize that loss, as soon as feasible. Agencies may also adopt their own agricultural preservation policies, consistent with the Stanislaus LAFCO Agricultural Preservation Policy, in order to better meet their own local circumstances and processes.

Local

STANISLAUS COUNTY

General Plan

Pursuant to California Code Title 14, Section 65300 the 1994 Stanislaus County General Plan addresses air quality in its Land Use Element and Agricultural Element. The plan also includes local, regional, State, and federal programs and regulations as well as a comprehensive set of guiding and implementing policies, as listed below.

LU Policy One: Land will be designated and zoned for agricultural, residential, commercial, industrial, or historical uses when such designations are consistent with other adopted goals and policies of the general plan.

LU Policy Three: Land use designations shall be consistent with the criteria established in this element.

LU Policy Twenty: Two-Future growth shall not exceed the capabilities/capacity of the provider of services such as sewer, water, public safety, solid waste management, road systems, schools, health care facilities, etc.

AG Policy 1.3: Efforts to expand markets for the export of local agricultural products shall be encouraged.

AG Policy 1.6: Processing facilities and storage facilities for agricultural products either grown or processed on the site shall be permissible in agricultural areas.

AG Policy 1.21: The County shall continue to work with local, state and federal agencies to ensure the safety of food produced in Stanislaus County and to maintain a local regulatory framework promoting environmental safety while ensuring the economic viability of agriculture.

AG Policy 2.3: In recognition that unincorporated land within spheres of influence of cities or community services districts and sanitary districts serving unincorporated communities ultimately will be urbanized, the County shall cooperate with cities and unincorporated communities in managing development in sphere of influence areas.

AG Policy 2.3: The County shall ensure all lands enrolled in the Williamson Act are devoted to agricultural and compatible uses supportive of the long-term conservation of agricultural land.

Stanislaus County Code

The Stanislaus County Code is the County's guideline for regulating land use activities and development within its jurisdiction. There are 24 Titles that make up the code which consists of all the regulatory and penal ordinances and certain administrative ordinances of the county of Stanislaus, California, codified pursuant to the provisions of Sections 50022.1—50022.8 and 50022.10 of the Government Code. Specifically, the code is meant to protect the: public health, safety, peace, morals, comfort, convenience, and general welfare of the inhabitants. The proposed project land use and planning specific activities are governed by the following regulations:

Title 16 Building and Construction regulates the construction of warehouses;

Title 13 Streets, Sidewalks and Public Places, Chapter 13.08 regulates the widening of streets;

Title 20 Zoning, Chapter 21.20 General Agriculture District (A-2) regulates what uses are allowed or conditionally allowed with a permit; and

Title 21.90 Produce Stands and Produce Markets, regulates produce stands.

North Washington Road is in the City of Turlock's WISP limits and designated as an expressway in the City's General Plan. Consequently, the proposed project's right-of-way improvements will also be subject to the City of Turlock's WISP. The next section provides an overview of applicable regulations.

CITY OF TURLOCK

Westside Industrial Specific Plan

As previously mentioned, the North Washington Street right-of-way is in the Turlock city limits and will have to comply with the WISP. The road is classified as an expressway in the Turlock General Plan. In addition to landscape screening for onsite parking areas, frontage improvements including curb, gutter, and sidewalk will be required along with a right turn lane into the project site. The proposed driveway would be aligned with the new traffic signal into the Blue Diamond facility on North Washington Road. All of these activities are directly related to land use and planning issues. Compliance with the WISP will include the following policies:

LU-P 2: All development shall comply with design standards established in this Specific Plan;

LU-P 4: Land use should be allocated so that the destination for heavy truck traffic is generally located on the west side of the Plan Area with access from Washington Road;

LU-P 8: Development will occur in phases linked to specific infrastructure improvements as defined in Section 5, Implementation; and

LU-15: Where industrial uses are adjacent to non-industrial uses, appropriate buffering techniques such as setbacks, screening, and landscaping need to be provided to mitigate any negative effects of industrial operations.

Chapter 3 of the WISP provides a detailed overview of the plan area including its land use objectives. The plan can be accessed at the City of Turlock's website using the following path:

<http://www.ci.turlock.ca.us/pdflink.asp?pdf=documents/developmentservices/planning/guidelines/WISP.pdf?o=o&title=Westside%20Industrial%20Specific%20Plan>.

Turlock Beautification Master Plan

The Turlock Beautification Plan was completed in 2011. Specially, the plan was created as a tool to assist in enhancing “the City's visual image and appearance and to establish a unified City identity. It is an opportunity to create a cohesive set of design criteria that will be the unified vision for proposed improvements throughout the project area”.

As required by the City of Turlock's WISP, landscape screening will be required along North Washington Road. According to the WISP:

- The City of Turlock maintains ordinances and standards that apply to development in the Plan Area. These include the Zoning Ordinance and the Beautification Master Plan. The Zoning Ordinance includes City Design Guidelines for high quality commercial and industrial development (Turlock Municipal Code 9-5-1000ART and cross-referenced at Section 9- 3-302 for commercial uses and Section 9-3-304 for industrial uses);

- The Specific Plan applies the Zoning Ordinance and the Beautification Master Plan throughout the Plan Area. However, the Plan Area includes conditions not directly addressed, or that require different standards than those found in these existing City documents. Therefore, the Specific Plan provides regulations that include the permitted land use and development standards associated with each land use category, and Development Standards that apply to private land use development and public improvements. The Urban Design section includes Design Standards that are mandatory for subsequent developments in the Plan Area. The “Design Standards” are identified in the Plan as “DS-“followed by a sequential number. These are to be interpreted as specific requirements for the applicable land use or condition identified in that section of the Plan;
- The WISP Design Standards complement the Zoning Ordinance Design Guidelines. Where the provisions of the WISP Design Standards differ from the Zoning Ordinance, the WISP Design Standards shall apply to development within the Plan Area; and
- The Specific Plan summarizes the essential development standards for each land use category, but project applicants must refer to the Zoning Ordinance development standards, the City Design Guidelines, and the Beautification Master to ensure that all applicable regulations are addressed.

A copy of the City’s Beautification Master Plan can be seen at <http://www.turlock.ca.us/pdflink.asp?pdf=documents/developmentservices/planning/guidelines/BeautificationMasterPlan.pdf>.

3.10.2 PHYSICAL SETTING

Land Use

The project site is located near the southwest corner of the intersection of Fulkerth Road and Washington Road, and north of the Turlock Irrigation District (TID) lateral #4 canal in unincorporated Stanislaus County. The site consists of the following two Assessor’s Parcels, totaling 74.69 acres: APN 023-039-017, and 023-039-018. The project site address is 1301 Washington Road.

Washington Road marks the western edge of Turlock’s city limits and is also the western boundary of the WISP¹. The project site includes several structures, including three dwellings, three barns, an existing frame structure, and a storage structure. The majority of the site is used for growing various fruits and vegetables.

¹ The Plan Area encompasses 2,615 acres on the west side of the City of Turlock adjacent to Highway (SR) 99, and is partially developed with industrial and commercial uses. Many of the industrial uses process or manufacture agriculture related products.

The WISP proposes the development of a mix of industrial, office and commercial uses in an area that is already partially developed for similar uses. The Plan Area does not contain any Environmental resources or features that require unusual approaches to development (City of Turlock, 2006).

The topography of the project site is essentially flat. Vegetation consists primarily of grown fruits and vegetables. Native trees grow at various locations along the site perimeter, including on the Washington Road frontage.

Surrounding Land Uses

Land uses surrounding the proposed project site are similar and related to agriculture. On the north, south, east, and west sides there are row crops, disked lands, and agricultural related structures. Specifically, the following uses occur:

North: A parcel developed with a single family home and agriculture crops forms the northern boundary of the project site. This property is also owned by the applicant, but is not part of the proposed project. Further north is Fulkerth Road.

East: North Washington Road forms the eastern boundary of the project site. Immediately east of the roadway lands is the Blue Diamond almond processing facility, which is in operation.

West: A dirt access road and orchards border the proposed project site on the west boundary. There appears to be three single-family residents and several agriculture accessory buildings that surround each home. The closest home is approximately 0.2 miles away.

South: South of the proposed project site are more orchards and a single-family home that fronts North Washington Road. The home is approximately 0.2 miles south of the proposed project's southern boundary. Turlock Irrigation District (TID) lateral #4 canal and power poles line the areas between the two sites.

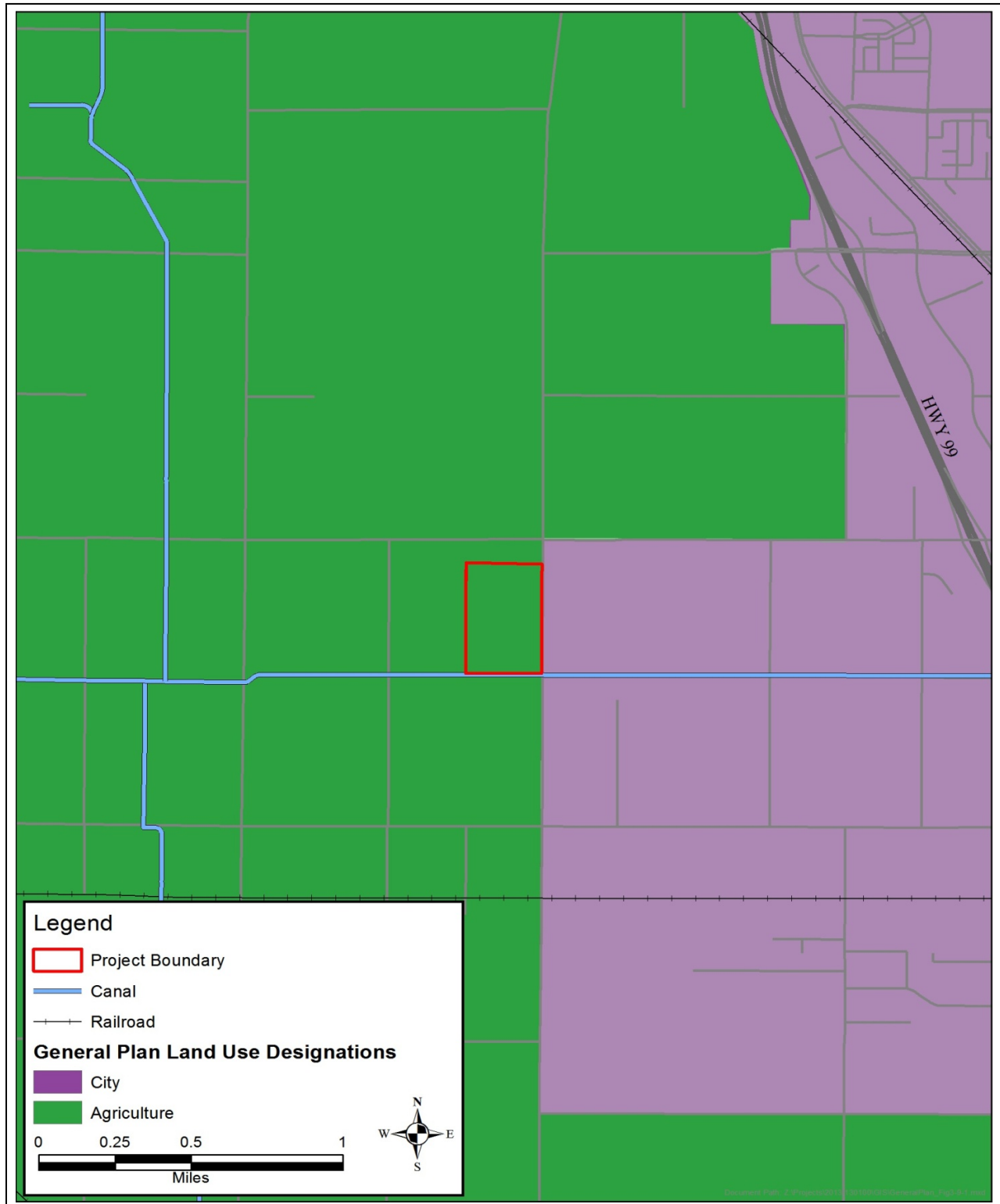
The proposed project is consistent with the surrounding uses which include single family homes, agricultural crops, and businesses related to agriculture. Historically, Stanislaus County is known for its agricultural lands and related uses. As early as 1874, the area of Ceres was referred to as the "Roman goddess of agriculture", because of the fine crops grown there (Santos, 2002). In 1868, historical documentation states that 2,317,652 bushels of wheat was harvested (Tinkham 1921).

Land Use Designations

PROJECT SITE

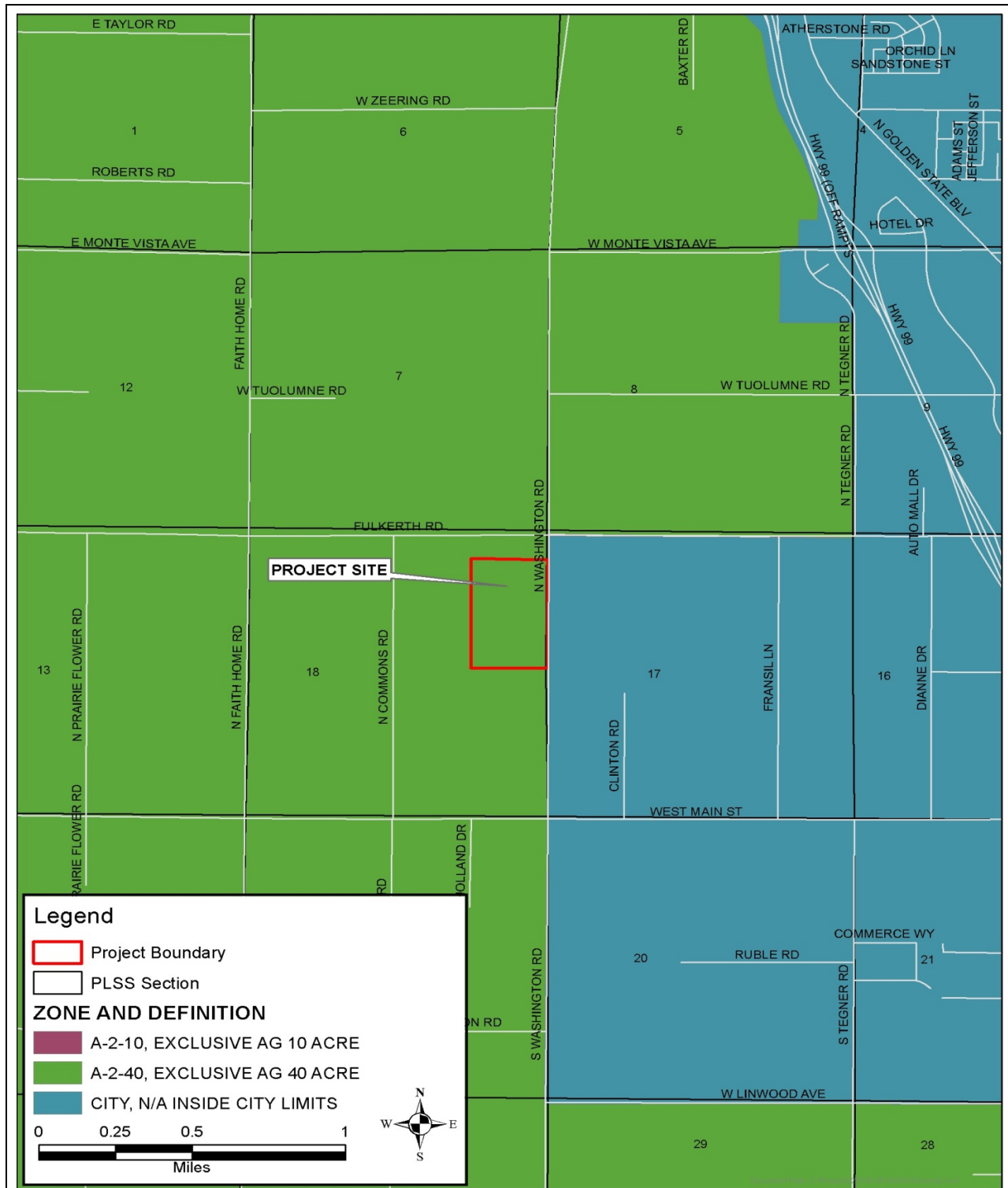
The Stanislaus County General Plan designates the project site "Agriculture", and the Stanislaus County Zoning Ordinance has a designation of "General Agriculture – 40 Acre Minimum (A-2-40)". The following designations comply with both the Stanislaus County General Plan and Zoning Ordinance.

Figures 3.10-1 and 3.10-2 include the existing land use designations and zoning for the proposed project site and surrounding areas. Further discussion of consistency is included in the analysis of impacts in Section 3.10-2.



EXISTING GENERAL PLAN LAND USE DESIGNATIONS

Figure 3.10-1



EXISTING ZONING

**Figure
3.10-2**

3.10.3 IMPACT EVALUATION CRITERIA

Analysis Methodology

The methodology used for determining whether the proposed project would have significant impacts on land use and planning relied on the 1994 Stanislaus County General Plan (with updates), Stanislaus County Code (current through Ordinance CS 1126 and the April 2013 code supplement), and the City of Turlock's WISP. Agency policies were evaluated and compared to the proposed project's activities to measure consistency.

A literature review of online reports and plans written by experts in the land use planning field and other related fields was also completed. Where applicable, information providing additional thresholds was used to assess impacts.

Thresholds of Significance

The CEQA Guidelines set forth criteria for the determination of whether a project will have a significant impact on land use and planning. A project's effect will normally be considered significant if it will:

- a) *Physically divide an established community.*
- b) *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.*
- c) *Conflict with any applicable habitat conservation plan or natural community conservation plan.*

An analysis to determine whether the proposed project would exceed the thresholds of significance for land use and planning is provided in the next section. Where impacts are significant mitigation is applied. If after applying mitigation impacts still exceed thresholds, a finding of significant and unavoidable is made.

3.10.4 IMPACTS AND MITIGATION MEASURES

Impact #3.10-1 – Physically divide an established community.

Impact #3.10-2 – Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

For CEQA purposes, to “physically divide” can be defined as to create physical barriers that change the connectivity between areas of a community in which people are separated from one

area to another. Connectivity is often provided by roadways, pedestrian paths, and bicycle paths. Some factors that would contribute to dividing or separating a community include:

- Construction of major highways or roadways;
- Closing bridges or roadways;
- Construction of utility transmission lines;
- Construction of storm channels; and
- Dams and other waterway diversions.

A “community” has a broad set of definitions, but for CEQA purposes is often defined as a region, city or county, or a neighborhood. In regards to the proposed project, the community of Stanislaus County and City of Turlock fits this definition. When considering whether a project would divide an established community, various land use plans, policies, and regulations which have been adopted for the purpose of avoiding or mitigating environmental effects, must be examined for consistency (Perea 2010). The following discussion starts with a consistency analysis of Stanislaus County’s general plan and zoning ordinance and ends with a consistency analysis of the City of Turlock’s WISP. Table 3.10-1 lists the general plan and zoning designations for the proposed project parcels.

**Table 3.10-1
Stanislaus County General Plan and Zoning by Parcel**

Parcel Number	Acreage	General Plan	Zoning
023-039-017	26.5	A (Agriculture)	A-2-40 (General Agriculture)
023-039-018	35.2	A (Agriculture)	A-2-40 (General Agriculture)
Total	61.7	-	-

Source: Stanislaus County, 2012.

The General Plan designation and zoning for Assessor’s Parcel Numbers (APNs) 023-039-017 and 023-039-018 is A (Agriculture) and A-2-40 for both parcels. Uses allowed in these designations are discussed separately.

General Plan

Chapter One, Land Use Element of the 1994 Stanislaus County General Plan states that the intent of the Agriculture designation is to “recognize the value and importance of agriculture by acting to preclude incompatible urban development within agricultural areas. It is intended for areas of land which are presently or potentially desirable for agricultural usage. These are typically areas which possess characteristics with respect to location, topography, parcel size, soil classification, water availability and adjacent usage which, in proper combination, provide a favorable agricultural environment. This designation establishes agriculture as the primary use in land so designated, but allows”:

- dwelling units;
- limited agriculturally related commercial services;
- agriculturally related light industrial uses; and
- other uses which by their unique nature are not compatible with urban uses, provided they do not conflict with the primary use.

“The Agriculture designation is also consistent with areas the overall General Plan has identified as suitable for open space or recreational use and for ranchettes.”

Table 3.10-2 lists the Stanislaus County General Plan Goals and Policies as they pertain to the proposed project. The County’s general plan includes seven mandatory elements which may or may not have goals and policies that are directly related to the proposed project.

**Table 3.10-2
Stanislaus County General Plan Goals and Policies**

Goals	Policies	Consistency
LU Goal One: Provide for diverse land use needs by designating patterns which are responsive to the physical characteristics of the land as well as to environmental, economic and social concerns of the residents of Stanislaus County.	Policy One- Land will be designated and zoned for agricultural, residential, commercial, industrial, or historical uses when such designations are consistent with other adopted goals and policies of the general plan.	Non-Applicable: This is a County function.
	Policy Two- Land designated Agriculture shall be restricted to uses that are compatible with agricultural practices, including natural resources management, open space, outdoor recreation and enjoyment of scenic beauty.	Consistency: The proposed project will include agriculture infrastructure which is in agreement with Policy Two.
	Policy Three- Land use designations shall be consistent with the criteria established in this element.	Consistent: The Land Use Element allows for “limited agriculturally related commercial services”.
LU Goal Three: Foster stable economic growth through appropriate land use policies.	Policy Sixteen- Agriculture, as the primary industry of the County, shall be promoted and protected.	Consistent: The proposed project will add 75 jobs to the toward the economic growth of the County.
LU Goal Four: Ensure that an effective level of public service is provided in unincorporated areas.	Policy Twenty-Two-Future growth shall not exceed the capabilities/capacity of the provider of services such as sewer, water, public safety, solid waste management, road systems, schools, health care facilities, etc.	Consistent: The proposed projects capacity related needs have all been evaluated and found to either be less than significant, or less than significant with mitigation applied.
	Policy Twenty- Three- New development shall pay its fair share of the cost of cumulative impacts on circulation and transit systems.	Non-applicable: Road improvements will occur in the City’s right-of-way along Washington Street.
AG Goal One: Strengthen the agricultural sector of our economy.	Policy 1.3: Efforts to expand markets for the export of local agricultural products shall be encouraged.	Consistent: Produce grown locally will be shipped to southern California, and to northern California, Oregon, and Washington.

Goals	Policies	Consistency
	Policy 1.6: Processing facilities and storage facilities for agricultural products either grown or processed on the site shall be permissible in agricultural areas.	Consistent: Produce is grown onsite and will be boxed and shipped from the warehouse.
	Policy 1.21: The County shall continue to work with local, state and federal agencies to ensure the safety of food produced in Stanislaus County and to maintain a local regulatory framework promoting environmental safety while ensuring the economic viability of agriculture.	Non-Applicable: This is a County function.
AG Goal Two: Conserve our agricultural lands for agricultural uses.	Policy 2.3: The County shall ensure all lands enrolled in the Williamson Act are devoted to agricultural and compatible uses supportive of the long-term conservation of agricultural land.	Consistent: All lands are currently under Williamson Act contracts and shall remain so.
Con/OS Goal Two: Conserve water resources and protect water quality in the County.	Policy Six: Preserve vegetation to protect waterways from bank erosion and siltation.	Non-Applicable: There are no waterways except for a canal which is not part of the proposed project site.

Source: County of Stanislaus, 1994.

Table 3.10-2 contains three goals from the Land Use Element, two from the Agricultural Element, and one from the Conservation and Open Space Element. The proposed project is consistent with each one of the six goals and their related policies.

Zoning Ordinance

Development of the site will include an 180,000 square foot agricultural warehouse for the receiving, storing, packing, and shipping of sweet potatoes and watermelons on approximately 61.7 acres. Other proposed construction will include a milk barn, fruit stand, and improvements along Washington Road which is within the City of Turlock’s right-of-way. The remainder of the project site will be used for farm equipment storage, and growing fields for watermelon and sweet potatoes.

According to the Stanislaus County Code, Title 21 Zoning, the proposed project site is zoned as Agriculture District (A-2-40). Section 21.20.030 A. 1. of the Code allows for the following conditional uses:

- stationary installations such as alfalfa and feed dehydrators;
- commercial viners;
- fuel alcohol stills designed to serve a localized area;
- nut hulling, shelling, and drying;
- agricultural experiment stations;
- warehouses for storage of grain and other farm produce;
- weighing, loading and grading stations;

- wholesale nurseries and landscape contractors when conducted in conjunction with a wholesale nursery;
- agricultural backhoe services;
- sale of firewood; and
- similar agricultural facilities.

In accordance with County requirements, the proposed project applied for Condition Use Permit (CUP) No. PLN2012-0017 on September 25, 2012. This EIR is in support of that entitlement as a result of the air quality/greenhouse gas emissions study which concluded that environmental impacts cannot be mitigated to a level of less than significant.

Westside Industrial Specific Plan

The proposed project lands along North Washington Road are designated in the WISP as Industrial Reserve (IR) and in the City of Turlock’s General Plan as Urban Reserve (UR). This discussion will focus primarily on the WISP designations as they are required to be consistent with the City of Turlock’s General Plan by implementation of its objectives and policies.

There is currently 535 acres within the WISP. This accounts for 20.5 percent of the total lands within the plan’s boundary. According to the plan, the purpose and intent of the IR designation is to industrialize the area consistent with the WISP, beyond the life of the current General Plan 1992-2012. “Areas designated IR may be suitable for annexation and development upon updating the City’s master infrastructure and urban service plans, that is, a “municipal services review”.” Table 3.10-3 summarizes the proposed project’s consistency with all applicable objectives and policies of WISP.

As shown in the table, the proposed project would be consistent with all applicable land use and planning objectives and policies. Therefore the proposed project is consistent with the City of Turlock’s WISP.

Conclusion: The proposed project would not alter the physical arrangement of the surrounding communities in the area as similar uses already exist in this area of Stanislaus County and the City of Turlock. The project is consistent with the County’s and City’s various land use plans, policies, and regulations. This impact would be *less than significant*.

Mitigation Measures: No mitigation measures are required.

Impact 3.10-3 – Conflict with any applicable habitat conservation plan or natural community conservation plan?

A search of the United States Fish and Wildlife’s website and the California Department of Fish and Wildlife’s web indicated that neither Stanislaus County nor City of Turlock currently has a habitat conservation plan (HCP) nor a natural community conservation plan (NCCP). Pacific Gas & Electric (PG&E) adopted an Operations and Maintenance (O&M) HCP in 2008 which covers the company’s existing gas and electric infrastructure which includes land from Eureka in the north to Bakersfield in the south. Unlike most HCPs which govern habitat protection for future

land development, PG&E's O&M HCP is the first to be activity-based, addressing protection for existing land uses. Other innovative aspects of the program include the wide range of sensitive species to be covered and the governance of many small-scale operational activities dispersed over a large geographic area (Pacific Gas & Electric 2008).

**Table 3.10-3
Westside Industrial Specific Plan Consistency Analysis**

Objectives	Policies	Consistency Determination
	Policy LU-P 2: All development shall comply with design standards established in this Specific Plan.	Consistent: The proposed project's landscaping plan is intended to provide visual screening of the development area from passersby on North Washington Road. Landscaping along the road's frontage will be consistent with guidance contained in the WISP. The plan includes a row of Chinese fringe trees along the site frontage in front of a 5-foot high chain link fence. Star jasmine will be planted along the fence and trained to grow upon the fence. In addition, 14 redwood trees are proposed in groups of two and three behind the fence and Chinese fringe trees.
	Policy LU-P 15: Where industrial uses are adjacent to non-industrial uses, appropriate buffering techniques such as setbacks, screening, and landscaping need to be provided to mitigate any negative effects of industrial operations.	
Objective 6: Maintain coordination between land development and expansion of public utilities and streets to ensure that utilities are available in a timely manner.	Policy LU-P 4: Land use should be allocated so that the destination for heavy truck traffic is generally located on the west side of the Plan Area with access from Washington Road.	Consistent: Access to the site is proposed from a single driveway onto North Washington Road aligned with the existing traffic signaled driveway to the Blue Diamond facility. Additional traffic signalization improvements will be installed to accommodate access to and from the site onto North Washington Road.
	Policy LU-P 8: Development will occur in phases linked to specific infrastructure improvements as defined in Section 5, Implementation.	Consistent: Section 5, Implementation I-P-47 requires that site grading shall be designed to create positive drainage throughout the site and to collect the storm water for the storm water drainage system. The site will be graded the minimum amount required to facilitate collection and treatment of all storm water on site, before being conveyed to an on-site retention basin shown on the site plan.

Source: City of Turlock, 2006.

Conclusion: According to both federal and State wildlife agencies, the County and City are not covered by a HCP and/or NCCP. Although PG&E has an O&M HCP, it only covers activities undertaken by the company in the operation and maintenance of gas and electric infrastructure. This impact would be *less than significant*.

Mitigation Measures: No mitigation measures are required.

3.11 Noise

This section provides an evaluation of the potential noise impacts that would be caused by implementation of the proposed project. The discussion starts with an overview of regulation that is normally applicable to the noise environmental factor, followed by a description of the physical setting of both the site and surrounding lands. An analysis is then provided to determine whether the impact(s) would be less than significant, significant without mitigation, or significant and unavoidable. If an impact is significant and can be reduced with mitigation, then a description of the mitigation measure(s) is provided. This section is based on the Environmental Noise Analysis, dated November 5, 2013, prepared by Bollard Acoustical Consultants, Inc.

3.11.1 REGULATORY SETTING

Federal

Noise is regulated at the federal, State, and local levels through regulations, policies, plans, and/or local ordinances. Local policies are commonly adaptations of federal and State guidelines, based on prevailing local conditions or special requirements.

FEDERAL HIGHWAY ADMINISTRATION

The Federal Highway Administration (FHWA) has a noise regulation that applies when a state department of transportation requests federal funding for participation in the project. Although funding sources for proposed roadway work along existing streets are not known at this time, it is not uncommon for federal funds to be used for local roadway projects. Therefore, Public Law 91-605, 84 Stat. 1713 (23 Code of Federal Regulations 772) Procedures of Abatement of Highway Traffic Noise and Construction Noise may apply during roadway construction. This regulation requires the highway agency to investigate traffic noise impacts in areas adjacent to federally-aided highways, for either a highway in a new location or the reconstruction of an existing highway. The regulation requires a three-part approach, including land use planning and control, source control (e.g., controlling major sources of noise), and highway project noise mitigation.

Mitigations require:

- Identification of traffic noise impacts and examination of potential mitigation measures;
- Incorporation of reasonable and feasible noise mitigation measures into the highway project; and
- Coordination with local officials to provide helpful information on compatible land use planning and control.

According to Title 23 CFR Part 772.5 of the FHWA standards, traffic noise impacts occur when the predicted traffic noise level in the design year approaches or exceeds the Noise Abatement

Criteria (NAC) specified by 23 CFR 772 or substantially exceeds the existing noise level. A noise level is considered to approach the NAC for a given activity if it is within 1 dB (A-weighted decibels) of the NAC.

A substantial noise increase occurs when the project’s worst-hour design-year noise level, as defined by the equivalent sound level (Leq), exceeds the existing worst-hour noise level by 12 dB or more.

Table 3.11-1 summarizes NAC corresponding to various land use activity categories. Activity categories and related traffic noise impacts are determined based on the actual land use in a given area.

**Table 3.11–1
Activity Categories and Noise Abatement Criteria (NAC)**

Activity Category	NAC, Hourly A-Weighted Noise Level (dBA – Leq [h])	Description of Activities
A	57 Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B	67 Exterior	Picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals
C	72 Exterior	Developed lands, properties, or activities not included in categories A or B above
D	--	Undeveloped lands
E	52 Interior	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums

Source: U.S. Department of Transportation, Federal Highway Administration. 2011.

In identifying noise impacts, primary consideration is given to exterior areas of frequent human use. In situations where there are no exterior activities, or where the exterior activities are far from the roadway or physically shielded in a manner that prevents an impact on exterior activities, the interior criterion (Activity Category E) is used as the basis for determining a noise impact.

Noise Abatement Criteria

Code of Federal Regulations (CFR) Title 23, Part 772 of the FHWA standards and the Caltrans Traffic Noise Analysis Protocol (Protocol) require that noise abatement be considered for projects that are predicted to result in traffic noise impacts. A traffic noise impact is considered to occur when future predicted design-year noise levels with the project “approach or exceed” Noise Abatement Criteria (NAC) defined in CFR Title 23, Part 772 or when the predicted design-year noise levels with the project substantially exceed existing noise levels.

Where traffic noise impacts are identified, noise abatement must be considered for reasonableness and feasibility as required by 23 CFR 772 and the Protocol. The overall reasonableness of noise abatement is determined by considering factors such as cost, absolute predicted noise levels, predicted future increase in noise levels, expected noise abatement benefits, build date of surrounding residential development along the highway, environmental impacts of abatement construction, opinions of affected residents, input from the public and local agencies, and social, legal, and technological factors.

Code of Federal Regulations Title 23, Part 772 states that for noise abatement to be considered acoustically feasible, it must be predicted to provide at least a 5 dB minimum reduction at an impacted receptor. Additionally, 23 CFR 772 now requires an acoustic design goal for abatement. The Caltrans acoustic design goal is that noise abatement must be predicted to provide at least 7 dB of noise reduction at one or more benefited receptors. In addition, barriers should be designed to intercept the line-of-sight from the exhaust stack of a truck to the first tier of receivers, as required by the Highway Design Manual, Chapter 1100. Other factors that affect feasibility include topography, access requirements for driveways and ramps, presence of local cross streets, utility conflicts, other noise sources in the area, and safety considerations.

Construction Noise and Vibration

There are no Caltrans or FHWA standards for construction noise or vibration. One reference suggesting vibration standards is the Federal Transit Administration (FTA) publication concerning noise and vibration impact assessment from transit activities. Although the FTA guidelines are to be applied to transit activities and construction, they may be reasonably applied to the assessment of the potential for annoyance or structural damage resulting from other activities. To prevent vibration annoyance in residences, a vibration velocity level of 80 VdB or less is suggested when there are fewer than 70 vibration events per day. A level of 100 VdB or less is suggested by the FTA guidelines to prevent damage to fragile buildings.

State

CALTRANS VIBRATION GUIDANCE

Construction vibration is regulated in accordance with standards established by the Transportation and Construction-Induced Vibration Guidance Manual, issued by the California Department of Transportation (Caltrans). Table 3.11-2 presents these standards.

**Table 3.11-2
Groundborne Vibration Exposure Standards**

Structure and Condition	Maximum Peak Particle Velocity (inches/second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic building, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and older residential structures with plaster walls and ceilings	0.50	0.25
New residential structures with gypsum board walls and ceilings	1.00	0.50
Modern commercial and industrial buildings	2.00	0.50

Source: Jones & Stokes, 2004.

Transient sources create a single, isolated vibration event, such as blasting or drop-ball impacts according to Table 3.11-2. Continuous/frequent intermittent sources include multiple impacts from pile drivers, the use of vibratory compaction equipment, and other construction equipment that creates vibration other than in single events. This Manual applies to Caltrans initiated projects.

Local

STANISLAUS COUNTY

General Plan

Pursuant to California Code Title 14, Section 65300 the 1994 Stanislaus County General Plan addresses noise in its Noise Element. The plan also includes local, regional, State, and federal programs and regulations as well as a comprehensive set of guiding and implementing policies. These policies are listed below:

NOS: Policy One - It is the policy of Stanislaus County to utilize the noise exposure information contained within the General Plan to identify existing and potential noise conflicts through the Land Use Planning and Project Review processes;

NOS: Policy Two - It is the policy of Stanislaus County to develop and implement effective measures to abate and avoid excessive noise exposure in the unincorporated areas of the County by requiring that effective noise mitigation measures be incorporated into the design of new noise generating and new noise sensitive land uses;

NOS: Policy Three - It is the objective of Stanislaus County to protect areas of the County where noise-sensitive land uses are located; and

NOS: Policy Four - It is the objective of Stanislaus County to ensure that the Noise Element is consistent with and does not conflict with other elements of the Stanislaus County General Plan.

The Stanislaus County General Plan Noise Element establishes acceptable noise level limits for both transportation and non-transportation noise sources. The primary objective of the Noise Element is to prescribe policies that lead to the preservation and enhancement of the quality of life for the residents of Stanislaus County by securing and maintaining an environment free from excessive noise.

For residential uses affected by transportation noise sources (off-site traffic in this case), the Noise Element identifies 60 dB Ldn (or CNEL) shown in Table 3.11-3. This is consistent with State of California standards recommended for transportation noise sources. Agricultural uses are not considered to be noise sensitive, but for the purposes of this assessment, residential dwellings located on agriculturally designated properties were considered to be sensitive, and the 60 dB Ldn criterion was assumed to be applicable.

**Table 3.11-3
Maximum Allowable Noise Exposure for Transportation Noise Sources
Stanislaus County Noise Element of the General Plan**

Land Use Category	Exterior Noise Exposure Ldn or CNEL, dBA	
	Normally Acceptable	Conditionally Acceptable
Residential- Low Density	60	70
Multi Family Residential	65	70
Hotels and Motels	65	70

Source: Bollard Acoustical Consultants, Inc., 2013.

Noise analyses in environmental assessments typically identify a threshold of significance and then compare the project impact to that threshold. For stationary noise sources such as aggregate extraction and processing operations, Stanislaus County regulates the level of noise that may impact adjacent noise-sensitive uses. For this project, the evaluation period is considered to be the worst-case hour during which on-site equipment would be operating. If the proposed project has the potential to exceed the County’s noise exposure limits at the closest noise-sensitive uses, such an impact would likely be considered environmentally significant. The noise exposure limits applicable to this project are summarized in Table 3.11-4.

**Table 3.11-4
Maximum Allowable Noise Exposure for Stationary Noise Sources
Stanislaus County Noise Element of the General Plan**

	Daytime Standard (7 a.m.-10 p.m.)	Nighttime Standard (10 p.m.-7 a.m.)
Hourly Leq, dB	55	45
Maximum Level (Lmax), dB	75	65

Source: Bollard Acoustical Consultants, Inc., 2013.

Stanislaus County Code

Noise standards for Stanislaus County are contained in the Stanislaus County Code Title 10, Chapter 10.46, Section 10.46.050 which states that it is unlawful for any person at any location within the unincorporated area of the county to create any noise or to allow the creation of any noise which causes the exterior noise level, when measured at any property situated in either the incorporated or unincorporated area of the county, to exceed the noise level standards. The following exterior noise level standards apply to all properties within the designated noise zone.

**Table 3.11-5
Exterior Noise Level Standards**

Designated Noise Alone	Maximum A-Weighted Sound Level as Measured on a Sound Level Meter (LMAX)	
	7:00 a.m - 9:59 p.m.	10:00 p.m. - 6:59 a.m.
Noise Sensitive	45	45
Residential	50	45
Commercial	60	55
Industrial	75	75
Noise Sensitive	45	45

Source: Stanislaus County, 1994.

The noise zones defined in Table 3.11-5 include:

1. Noise sensitive which is defined as a public or private school, hospital, church, convalescent home, cemetery, sensitive wildlife habitat, or public library regardless of its location within any land use zoning district;
2. Residential consists of all parcels located within a residential land use zoning district;
3. Commercial, defined as parcels located within a commercial or highway frontage land use zoning district;
4. Industrial. Includes all parcels located within an industrial land use zoning district; and
5. The noise zone definition of any parcel not located within a residential, commercial, highway frontage, or industrial land use zoning district shall be determined by the Director of Stanislaus County Planning and Community Development Department, or designee, based on the permitted uses of the land use zoning district in which the parcel is located. (Ord. CS 1070 §2, 2010)

In addition to the above requirements, the County has cumulative duration allowance standards that shall not exceed the following criteria as listed in Table 3.11-6 below.

**Table 3.11-6
Cumulative Duration Allowance Standards**

Cumulative Duration	Allowance Decibels
Equal to or greater than 30 minutes per hour	Table A plus 0 dB
Equal to or greater than 15 minutes per hour	Table A plus 5 dB
Equal to or greater than 5 minutes per hour	Table A plus 10 dB
Equal to or greater than 1 minute per hour	Table A plus 15 dB
Less than 1 minute per hour	Table A plus 20 dB

Source: Stanislaus County, 1994.

Allowance decibels as listed in the table would not allow noises such as those originating from commercial to exceed 60 dB between the hours of 7:00 a.m.—9:59 p.m. for more than 30 minutes per hour. Residential could not produce a noise of 15 dB from 10:00 p.m.—6:59 a.m. for more than 1 minute per hour. The noise sensitive could only produce 55 dB between the hours of 7:00 a.m.—9:59 p.m. for no more than 5 minutes per hour.

The Stanislaus County Code, Title 9, Chapter 9.32, Sections 9.32.020 through 9.32.080 address nuisance complaints associated with agricultural related activities which includes noise. Pursuant to Section 9.32.020 Findings and policy C., the County requires a transfer disclosure statement where the seller of a piece of land shall disclose all information on the property to prospective buyers including:

If the property is adjacent to or near property used for agricultural operations or on agricultural lands, you may be subject to inconveniences or discomforts arising from such operations, *including but not limited to noise*, odors, fumes, dust, the operation of machinery of any kind during any 24-hour period (including aircraft), the storage and disposal of manure, and the application by spraying or otherwise of chemical fertilizers, soil amendments, herbicides and pesticides. Stanislaus County has determined that inconveniences or discomforts associated with such agricultural operations shall not be considered to be a nuisance if such operations are consistent with accepted customs and standards. Stanislaus County has established a grievance committee to assist in the resolution of any disputes which might arise between residents of this County regarding agricultural operations. If you have any questions concerning this policy or the grievance committee, please contact the Stanislaus County Planning and Community Development Department.

In addition, Section 9.32.050 Right-to-Farm Notice provides all property owners with constructive notice of Stanislaus County’s right-to-farm policy. As a condition of approval for final recorded parcel and subdivision maps involving agricultural lands, or adjacent to such lands, the following note must be included on the map:

All persons purchasing lots within the boundaries of this approved map should be prepared to accept the inconveniences associated with agricultural operations, *such as noise*, odors, flies, dust or fumes. Stanislaus County has determined that such inconveniences shall not be considered to be a nuisance if agricultural operations are consistent with accepted customs and standards.

Failure to comply with any provision in the regulation shall not prevent the recording of any document, nor shall it affect title to real property or any mortgage or deed of trust made in good faith or for value. However, any person who violates any provisions is guilty of an infraction punishable as set forth in Section 1.36.020 of the Stanislaus County Code.

Construction Hours

Stanislaus County Code Title 10, Chapter 10.46, Section 10.46.060 requires the proposed project be subject to the following additional standards. Failure to comply with these additional standards constitutes a separate violation:

B. Power Tools and Equipment. No person shall operate any power tools or equipment between the hours of ten p.m. and seven a.m. such that the power tools or equipment are audible to the human ear inside an inhabited dwelling other than a dwelling in which the power tools or equipment may be located. No person shall operate any power tools or equipment at any other time such that the power tools or equipment are audible to the human ear at a distance greater than one hundred feet from the power tools or equipment; and

E. Construction Equipment. No person shall operate any construction equipment so as to cause at or beyond the property line of any property upon which a dwelling unit is located an average sound level greater than seventy-five decibels between the hours of seven p.m. and seven a.m.

The proposed project would include both short and long-term noise that will be generated from construction equipment and truck traffic during operations.

CITY OF TURLOCK

Westside Industrial Specific Plan

As previously mentioned, the entire right-of-way of North Washington Street along the frontage of the project site is in the Turlock city limits and within the Westside Industrial Park Specific Plan (WISP). The road is classified as an expressway in the Turlock General Plan. In addition to landscape screening for onsite parking areas, frontage improvements including curb, gutter, and sidewalk will be required along with a right turn lane into the project site. The proposed driveway would be aligned with the new traffic signal into the Blue Diamond facility on North Washington Road. All of these activities would generate traffic and be directly related to noise issues. Compliance with the WISP will include the following applicable policies:

R-P 53: Require stationary noise sources proposed in areas adjacent to noise-sensitive uses to be mitigated so as to not exceed the noise level performance standards;

R-P 54: Work in cooperation with the City, Caltrans, and the Union Pacific Railroad to maintain noise level standards for the Plan Area in compliance with noise standards;

R-P 56: Control noise at the source through use of insulation, berms, building design and orientation, buffer space, staggered operating hours, sound walls, enclosing certain noise creating equipment/activities, use of muffling or silencing equipment, as necessary to ensure compliance with the City of Turlock Noise Standards. Use noise barriers to attenuate noise to acceptable levels;

R-P 57: Noise-producing equipment shall be set back from the noise sensitive property line to the maximum practical extent; and

R-P 58: Operation of mechanical refrigeration units on trucks shall be prohibited during loading/unloading in areas adjacent to noise-sensitive uses.

Chapter 6 of the WISP provides a detailed overview of the specific plan area including its infrastructure and services and land use objectives as related to noise. The plan can be accessed at the City of Turlock's website using the following path:

<http://www.ci.turlock.ca.us/pdflink.asp?pdf=documents/developmentservices/planning/guidelines/WISP.pdf?o=o&title=Westside%20Industrial%20Specific%20Plan>.

3.11.2 PHYSICAL SETTING

Noise Fundamentals

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard, and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz). Definitions of acoustical terminology used in this report are presented in Appendix E. Appendix E includes the Environmental Noise Analysis, dated November 5, 2013, that was completed for this section of the EIR by Bollard Acoustical Consultants, Inc.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals of pressure) as a point of reference defined as 0 dB. Other sound pressures are then compared to the reference pressure and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in decibel levels correspond closely to human perception of relative loudness. Table 3.11-7 illustrates common noise levels associated with various sources.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by weighting the frequency response of a sound level meter by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the

standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels.

**Table 3.11-7
Typical A-Weighted Sound Levels of Common Noise Sources**

Loudness Ratio	dBA	Description
128	130	Threshold of pain
64	120	Jet aircraft take-off at 100 feet
32	110	Riveting machine at operators position
16	100	Shotgun at 200 feet
8	90	Bulldozer at 50 feet
4	80	Diesel locomotive at 300 feet
2	70	Commercial jet aircraft interior during flight
1	60	Normal conversation speech at 5-10 feet
1/2	50	Open office background level
1/4	40	Background level within a residence
1/8	30	Soft whisper at 2 feet
1/16	20	Interior of recording studio

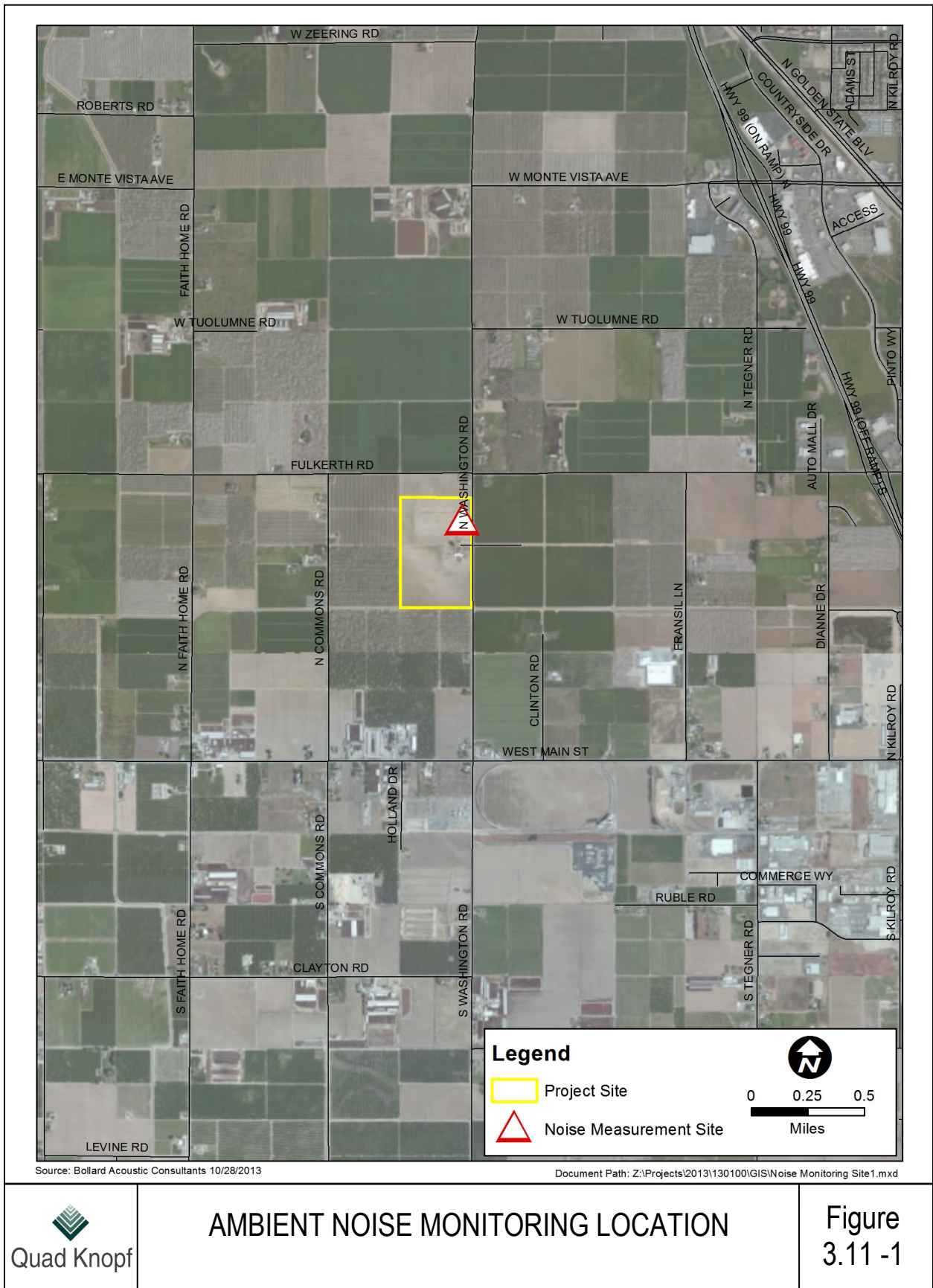
Source: Bollard Acoustical Consultants, Inc., 2013.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to describe the ambient noise level is the average, or equivalent, sound level (Leq). The Leq is the foundation of the day/night average noise level (Ldn) and shows very good correlation with community response to noise.

Existing acoustical literature and application of accepted noise prediction and sound propagation algorithms were used to predict project related noise levels. Specific noise sources evaluated in this section were onsite noise sources associated with the commercial development. Average Sound Exposure Level (SEL) estimates were used to predict noise levels due to truck circulation on the project site. The SEL noise descriptor is the equivalent sound energy of an acoustical event normalized to one second duration.

Existing Land Uses in the Project Vicinity

The project site is bordered by a variety of different land uses. The site is bordered to the west by North Commons Road and agricultural uses (walnut orchards). The project site is bordered to the south by West Main Street and agricultural uses (walnut orchards). The project site is bordered to the east by North Washington Road and agricultural uses including a Blue Diamond almond processing facility. The project site is bordered to the north by Fulkerth Road, agricultural uses (planted row crops) and six single family homes.



AMBIENT NOISE MONITORING LOCATION

Figure 3.11 -1

Existing General Ambient Noise Environment in the Project Vicinity

The ambient noise environment in the immediate project vicinity is primarily defined by traffic on North Washington Road and to a lesser extent, Fulkerth Road, as well as by operations at the new Blue Diamond facility on the east side of North Washington Road.

To generally quantify the existing ambient noise environment in the immediate project vicinity, continuous hourly noise level measurements were conducted at the project site on October 5-7, 2013. The noise measurement location is shown on Figure 3.11-1. A Larson-Davis Laboratories (LDL) Model 820 precision integrating sound level meter was used to complete the noise level measurement survey. The meter was calibrated before use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

The noise level measurement survey results are summarized below in Table 3.11-8. The detailed results of the ambient noise surveys are contained in Appendix E of this EIR.

**Table 3.11-8
Summary of Ambient Noise Measurement Results
Dan Avila & Sons Warehouse Project, Stanislaus County – October 5-7, 2013**

Date	Ldn	Daytime (7 am - 10 pm)		Nighttime (10 pm - 7 am)	
		Leq	Lmax	Leq	Lmax
October 5	58	55	73	51	70
October 6	59	56	73	51	69
October 7	60	58	73	52	69

Source: Bollard Acoustical Consultants, Inc., 2013.

Existing Traffic Noise Environment

To predict existing noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD 77 108) was used. The Model uses the Calveno reference noise factors for automobiles, medium trucks, and heavy trucks. The Model considers vehicle volume and speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the sound propagation path.

Table 3.11-9 summarizes the calculated existing traffic noise levels in terms of Ldn at a reference distance of 100 feet from the centerlines of existing project-area roadways. The table also includes the distances to existing traffic noise contours. Appendix E contains the detailed FHWA Model inputs, predicted traffic noise levels, and distances to noise contours.

**Table 3.11-9
Existing Traffic Noise Levels Dan Avila & Sons Warehouse Project Area Roadways**

Seg.	Intersection	Direction	Ldn @ 100 ft.	Distance to Traffic Noise Contours			
				75	70	65	60
1	Washington & Fulkerth Rds.	North	59	9	19	40	87
2		South	61	11	24	52	112
3		East	61	11	24	52	113
4		West	60	10	21	46	99
5	Washington & Main Rds.	North	61	12	25	54	117
6		South	57	6	13	28	60
7		East	64	17	37	80	172
8		West	63	17	36	77	166

Source: Bollard Acoustical Consultants, Inc., 2013.

The following table was developed by the Federal Interagency Committee on Noise (FICON) as a means of developing thresholds for identifying project-related noise level increases. The rationale for the graduated scales is that test subject's reactions to increases in noise levels varied depending on the starting level of noise. Specifically, with lower ambient noise environments, such as those below 60 dB Ldn, a larger increase in noise levels was required to achieve a negative reaction than was necessary in environments where noise levels were already elevated. Therefore, because the County does not have defined thresholds for what would be considered a substantial increase in noise levels, information from Table 3.11-10 is used.

**Table 3.11-10
Significance of Changes in Cumulative Noise Exposure**

Ambient Noise Level Without Project, Ldn	Increase Required for Significant Impact
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

Source: Bollard Acoustical Consultants, Inc., 2013.

3.11.3 IMPACT EVALUATION CRITERIA

Analysis Methodology

The methodology applied to this section of the EIR consists of using information from the Environmental Noise Analysis that was completed for the proposed project. That analysis focuses on noise generated by project construction, onsite activities (truck movements and mechanical equipment), and off-site increase in traffic noise levels resulting from the proposed project. The analysis of noise impacts also focuses on the noise-sensitive residential uses to the north. A literature review of all applicable federal, State and local noise regulations was also completed.

Thresholds of Significance

According to Appendix G, Environmental Checklist of the CEQA Guidelines, noise impacts resulting from the implementation of the proposed project would be considered significant if the project would cause:

- a) *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.*
- b) *Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels.*
- c) *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.*
- d) *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.*
- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.*
- f) *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.*

ENVIRONMENTAL NOISE ANALYSIS THRESHOLDS OF SIGNIFICANCE

According to the Environmental Noise Analysis that was completed for this project, noise impacts are considered significant if any of the following conditions are met:

- Off-site traffic noise level increases over traffic noise levels present without the project exceed the Table 3.11-10 criteria;
- Noise generated by on-site mechanical equipment exceeds the noise standards contained in Table 3.11-4 or cause a significant increase in ambient noise levels as defined by the Table 3.11-5 criteria;
- Noise generated by project construction activities causes a significant increase in ambient noise levels as defined by the Table 3.11-5 criteria.

To avoid the redundancy of referencing the same source, it should be noted that the majority of information provided in sections 3.11-3 and 3.11-4 of Section 3.11 is taken from the Environmental Noise Analysis.

3.11.4 IMPACTS AND MITIGATION MEASURES

Impact #3.11-1 – Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

These impacts address off-site traffic noise, construction noise, onsite truck circulation noise, and mechanical equipment noise. Each topic will be addressed separately in the following analyses.

Off-site Traffic Noise

To assess noise impacts due to project-related traffic increases on the local roadway network, traffic noise levels are predicted at a representative distance of 100 feet for both existing and future, with project and no-project conditions. Noise impacts are identified at existing noise sensitive areas if the noise level increases that result from project development exceed the FICON Standards included in Table 3.11-10.

To describe existing and projected noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD 77 108) was used. The model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly Leq values for free flowing traffic conditions. To predict traffic noise levels in terms of Ldn, it is necessary to adjust the input volume to account for the day/night distribution of traffic.

Traffic volumes for existing and future (cumulative) conditions, with and without the project scenarios, were obtained from KD Anderson, transportation consultants. Table 3.11-11 shows the estimated Ldn at a standard distance of 100 feet from the centerlines of project area roadways for existing and future, project and no-project conditions, as well as the increases in traffic noise levels which would result from the proposed project.

**Table 3.11-11
Predicted Traffic Noise Levels and Project-Related Traffic Noise Level Increases
(Ldn, dB @ 100 feet from C/L) Dan Avila & Sons Warehouse Project EIR**

Seg.	Intersection	Segment Direction	Existing	Existing + Project	Change	Cumulative	Cumulative + Project	Change
1	Washington & Fulkerth	North	59	60	1	60	60	0
2		South	61	62	1	63	64	1
3		East	61	62	1	63	64	1
4		West	60	60	0	61	61	0
5	Washington & Main	North	61	64	3	64	66	2
6		South	57	60	3	62	63	1

Seg.	Intersection	Segment Direction	Existing	Existing + Project	Change	Cumulative	Cumulative + Project	Change
7		East	64	65	1	65	66	1
8		West	63	64	1	65	65	0

Source: Bollard Acoustical Consultants, Inc., 2013.

The Table 3.11-11 data indicate that the project-related increase in traffic noise levels along the nearest roadways to the project site would range from 0 to 3 dB for existing conditions, and from 0 to 2 dB for future (cumulative conditions). The predicted 3 dB increase in traffic noise levels along Washington Road, between the project site and Main Street, is right at the Table 3.11-10 threshold for finding of a significant noise impact based on existing noise levels without the project being in the range of 60-65 dB Ldn.

Development of the project would generally result in increased traffic noise along roadways used by project-generated traffic. Comparison of the table data against the Table 3.11-10 criteria for a significant noise increase indicates that one segment, Washington Road between Main Street and the project site, would be considered significantly impacted by project-generated traffic. It should be noted, however, that the project truck trip generation estimates were based on the ITE trip generation factors for warehouse facilities. Using those figures, a total daily project trip generation of 817 daily trips was computed. Relative to estimates of project-generated traffic provided by the project applicant, the 817 daily trips computed using the ITE factors are believed to be conservative. As a result, the actual increases in off-site traffic noise are expected to be lower than indicated in Table 3.11-11, and below the threshold of significance. Nonetheless, because the future traffic noise levels along this one roadway segment would exceed the project thresholds of significance at existing residences this impact is considered *significant and unavoidable*.

Construction Noise Impact

During the construction phases of the proposed project, noise from construction activities would add to the noise environment in the immediate project vicinity. Activities involved in typical construction would generate maximum noise levels, as indicated in Table 3.11-12, ranging from 85 to 90 dB at a distance of 50 feet. Construction activities are proposed to occur during normal daytime working hours and would be short-term in nature.

**Table 3.11-12
Construction Equipment Noise**

Type of Equipment	Maximum Level, dB at 50 feet
Bulldozers	87
Heavy Trucks	88
Backhoe	85
Pneumatic Tools	85
Portable Crushing Plant	90

Source: Bollard Acoustical Consultants, Inc., 2013.

The nearest existing noise-sensitive land uses are located approximately 500 feet north of the main construction area on the project site. At that distance, the construction noise levels shown in Table 3.11-12 would be reduced by approximately 26 dB based on distance alone (assuming 6 dB decreases per doubling of distance from the reference noise source). The resulting noise levels would range from 59-64 dB Lmax at the nearest residences. This range of levels is both below the County's exterior noise level standards shown in Table 3.11-4 as well as below measured existing maximum noise levels shown in Table 3.11-8. As a result, this impact is considered *less than significant*.

On-Site Truck Circulation Noise

According to the traffic study prepared for the project, approximately 114 peak hour trips would be generated during the a.m. peak hour. For purposes of this analysis, it was assumed that approximately 75% of those trips would be trucks and 25% employee vehicles, resulting in approximately 85 heavy truck movements during the peak hour.

To quantify the noise generation of on-site parking lot noise emissions, Bollard Acoustical Consultants, Inc. utilized noise measurement data for slow-moving heavy trucks. The mean sound exposure level (SEL) resulting from these tests was 75 dB SEL at a distance of 50 feet from the effective noise center of the passby area. The peak hour parking lot average noise level (Leq) can be determined using the following formula:

- Peak Hour Leq = $75 + 10 * (\log Neq) - 36$, dB where:

Seventy-five is the assumed sound exposure level (SEL) for a typical truck movements, Neq is the number of truck movements during the peak hour, and 36 is 10 times the logarithm of the number seconds in an hour.

Based upon the equation above, the predicted peak hour truck movement noise level at 50 feet would be 58 dB Leq at a distance of 50 feet. At the nearest residences to the on-site truck movement areas, located approximately 500+ feet away, the computed Leq for peak hour truck movements would be approximately 30-35 dB Leq. This level is well within compliance with the County noise standards shown in Table 3.11-4 and well below measured existing average noise levels shown in Table 3.11-8. As a result, this impact is considered *less than significant*.

Mechanical Equipment Noise

The proposed warehouse includes a 5 horsepower evaporative cooler capable of moving 35- 50K cubic feet per minute. BAC file data for evaporative coolers of this size indicate that a sound power level of approximately 105 dB can be expected. After consideration of distance to the nearest residences and shielding provided by the proposed warehouse building, the predicted noise level at the nearest residences would be approximately 40 dB Leq or less. This level complies with the County's exterior noise standards shown in Table 3.11-5 and well below measured existing average noise levels shown in Table 3.11-8. As a result, this impact is considered *less than significant*.

Conclusion: The proposed project would not expose people to noise levels in excess of standards established in the County's noise ordinance during construction. Noise impacts from construction would be less than significant. However, because the future traffic noise levels along Washington Road between Main Street and the project site would be considered significantly impacted by project-generated traffic, project thresholds of significance at existing residences would be exceeded. A *significant and unavoidable* impact would occur.

Mitigation Measure: No mitigation measures are available. Other development contributions to traffic noise levels on streets affected by project-related traffic contribute, and will contribute, to noise level violations. Because the project contributes only a portion of the noise impact, there is no legal ability for the County to demand full mitigation from the project as a condition of approval to correct traffic-related individual-parcel noise levels emanating from the entire project area. In addition, the County has no fee program in place to address this impact.

Impact #3.11-2 – Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels.

The effects of ground-borne vibration include movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings.

The most common sources of man-made vibration are sonic booms, blasting, pile driving, pavement breaking, demolition, diesel locomotives, and rail-car coupling. None of these sources are anticipated during construction of the project or operation of mechanical equipment after project construction. The primary vibratory source during the construction of the project could be large bulldozers and loaded trucks. Typical bulldozer or loaded truck activities generate an approximate vibration level of 0.076 to 0.089-inch per second peak particle velocity (PPV), and 86-87 Vibration Velocity Level (VdB) at a distance of 25 feet. Typically, vibration levels must exceed 80 VdB before annoyance occurs or 100 VdB before building damage occurs. The Caltrans Transportation and Construction-Induced Vibration Guidance Manual recommends a threshold of 0.25-inch-per-second PPV as the significance level for continuous events, near older residential structures during construction activities. The nearest existing noise-sensitive land uses are located approximately 1,000 feet north of the main construction area on the project site. It is anticipated that the vibration levels caused by a large bulldozer operating on the edge of the area to be disturbed during construction of the proposed project at that nearest structure will be less than 0.089-inch-per-second PPV, and other sensitive land uses located further away would experience even lower vibration levels.

Conclusion: This impact would be *less than significant*.

Mitigation Measures: No mitigation measures are required.

Impact #3.11-3 – A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Stanislaus County has developed significance criteria for project-related increases in ambient noise levels which are shown in Table 3.11-3. As mentioned before, activities associated with onsite truck circulation and operation of the proposed evaporative cooler are predicted to be in compliance with both daytime and nighttime noise level standards of Stanislaus County (Table 3.11-4), as well as below measured existing ambient noise levels, at the nearest potentially affected noise-sensitive land uses. As a result, this impact is considered *less than significant*.

Future development within Stanislaus County and neighboring counties, including the proposed project, would incrementally affect the future (cumulative) ambient noise environment. While it is difficult to project exactly how the ambient noise conditions within the area would change, it is known that traffic noise levels would increase slightly due to cumulative development within the region, both with and without the proposed project. Table 3.11-11 shows the projected traffic noise levels at a reference distance of 100 feet from the various roadway centerlines for Cumulative plus Project conditions, and the increases associated with those levels over cumulative conditions without the proposed project.

As noted in the Standards of Significance, a substantial increase in traffic noise levels is defined as 1.5 to 5 dB Ldn, depending on the baseline noise environment without the proposed project. Because the cumulative increase in project-generated traffic would not cause traffic noise levels to increase in excess of the standards shown in Table 3.11-12, the project's contribution to the cumulative noise environment is not considerable, resulting in a finding of *less than significant impact*.

Conclusion: The proposed project would not result in a substantial permanent increase in ambient noise levels resulting from onsite truck circulations and operation of the evaporative cooler. Cumulative ambient noise levels are not predicted to reach significant levels. Impacts are expected to be *less than significant*.

Mitigation Measures: No mitigation measures are required.

Impact #3.11-4 – A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Activities associated with construction of the project would be temporary in nature, limited to daytime hours, and would generate noise levels below the County's noise standards and measured existing ambient noise levels.

Conclusion: There would be a temporary or periodic increase in ambient noise levels in the project vicinity during construction. However, noise levels would not exceed local regulation and therefore would not be considered substantial. Impacts would be *less than significant*.

Mitigation Measures: No mitigation measures are required.

Impact #3.11-5 – For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

Impact #3.11-6 – For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

Conclusion: As discussed in Section 3.8, Turlock Airpark is located approximately 4.8 miles northwest of the proposed project site. The proposed project site is over 2 miles away from the ALUC's planning boundary for the as shown on the Airport Land Use Compatibility Map on page 19 and the Airport Land Use Commission Plan. However, if it were to be the planning boundary, it would have been classified (2) compatible in a particular area (marked with an O) (Stanislaus County Planning Commission 2004). There is *no impact*.

Mitigation Measures: No mitigation measures are required.

3.12 Public Services and Utilities

This section describes the existing public services and utilities and potential effects from project implementation on the site and its surrounding area. Per Appendix G of the CEQA Guidelines, utilities described and analyzed include water and wastewater treatment and storm drainage facilities. Services addressed in this chapter include fire, emergency services, police, schools, parks and recreational facilities, and libraries. Descriptions and analysis in this section are based on information provided by the Stanislaus Consolidated Fire Protection District, the Stanislaus County Sheriff's Department, the Turlock Irrigation District, and Cal Recycle, as well as other regional, State, and federal sources.

3.12.1 REGULATORY SETTING

Federal

UNIFORM FIRE CODE

The National Fire Protection Association publishes the Uniform Fire Code with provides standards for fire protection. The nationally recognized standards require that fire departments “have the capability to deploy an initial full alarm assignment within eight (8) minute response time to 90 percent of the incidents.” (NFPA 1710)

CLEAN WATER ACT

The Clean Water Act (CWA) is the principal federal law that addresses water quality. The primary objectives include the regulation of pollutant discharges to surface water, financial assistance for public wastewater treatment systems, technology development, and non-point source pollution prevention programs. The Clean Water Act also requires that states adopt water quality standards to protect public health and welfare and enhance the quality of water.

SAFE DRINKING WATER ACT

The Safe Drinking Water Act (SDWA), administered by the U.S. Environmental Protection Agency (EPA) in coordination with the states, is the main federal law that ensures the quality of drinking water. Under the SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. The Department of Public Health administers the regulations contained in the Act in the State of California.

RESOURCE CONSERVATION AND RECOVERY ACT (AMENDED 1986)

The Resource Conservation and Recovery Act is a federal act regulating the potential health and environmental problems associated with solid waste hazards and non-hazardous wastes. Specific regulations addressing solid waste issues are contained in Title 40, Code of Federal Regulations.

State

CALIFORNIA BUILDING STANDARDS CODE

Title 24 of the California Code of Regulations, also known as the California Building Standards Code, is a compilation of three types of building standards from three different origins:

- Building standards that have been adopted by state agencies without change from building standards contained in national model codes;
- Building standards that have been adopted and adapted from the national model code standards to meet California conditions; and
- Building standards, authorized by the California legislature, that constitute extensive additions not covered by the model codes that have been adopted to address particular California concerns

The California Fire Code is a component of the California Building Standards Code and contains fire safety-related building standards.

CALIFORNIA GREEN BUILDING STANDARDS CODE

The California Green Building Standard Code was adopted January 12, 2009. The purpose of this code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories:

- Planning and design;
- Energy efficiency;
- Water efficiency and conservation;
- Material conservation and resource efficiency; and
- Environmental air quality.

The Code addresses exterior envelope, water efficiency, and material conservation components. The aim is to reduce energy usage in non-residential buildings by 20 percent by 2015 and help meet reductions contemplated in AB 32.

TITLE 24, CALIFORNIA'S ENERGY EFFICIENCY STANDARDS FOR RESIDENTIAL AND NONRESIDENTIAL BUILDINGS

Title 24, Part 6, of the California Code of Regulations establishes California's Energy Efficiency Standards for Residential and Nonresidential Buildings. The standards were updated in 2005 and recently amended in 2008. The 2008 standards set a goal of reducing growth in electricity use by 561.2 gigawatt-hours per year (GWh/y) and growth in natural gas use by 19 million therms per year (therms/y).

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE

The Model Water Efficient Landscape Ordinance was adopted by the Office of Administrative Law in September 2009 and requires local agencies to implement water efficiency measures as part of its review of landscaping plans. All local agencies must adopt a water efficient landscape ordinance by January 1, 2010. The local agencies may adopt the state Model Ordinance, or craft an ordinance to fit local conditions. In addition, several local agencies may collaborate and craft a region-wide ordinance. In any case, the adopted ordinance must be as effective as the Model Ordinance in regard to water conservation.

CALIFORNIA WATER CODE

California Water Code (Porter-Cologne Act) establishes a program to protect water quality and beneficial uses of state water resources and addresses groundwater and surface water. The State Water Resources Control Board and the Regional Water Quality Control Boards (RWQCBs) are the principal state agencies responsible for control of water quality.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

The CWA requires local jurisdictions to address the problems of pollutants in stormwater runoff from development. The CWA provides for the control of the discharge of any pollutant into navigable waters from any point sources. To regulate point source pollution, the CWA provides that the EPA may issue NPDES permits. NPDES permits are issued by the EPA or the states under EPA-approved permit programs that incorporate CWA's technological standards. California's NPDES permit program is implemented through the State Water Resources Control Board (SWRCB) and the RWQCBs. Section 402(p) of the CWA establishes a framework for regulating municipal and industrial stormwater discharges under the NPDES program, and requires controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and systems, design and engineering methods.

The RWQCBs implement the CWA's municipal storm water requirements through the State's Municipal Storm Water Permitting Program. While federal regulations allow the permitting options for storm water discharges (individual and general permits), the SWRCB has elected to adopt only one Statewide General Permit. In September 2009, the SWRCB adopted a new NPDES General Permit for the stormwater discharges associated with construction and land disturbance activities (No. 2009-0009-DWQ) that, among other things, requires compliance with certain numeric effluent limitations. This General Permit will become effective on July 1, 2010. It requires development of a site-specific SWPPP that specifies Best Management Practices (BMPs) that will prevent construction pollutants from contacting stormwater with the interest of keeping all products of erosion from moving offsite to receiving waters. This General Permit is implemented and enforced by the nine RWQCBs.

WASTE DISCHARGE REQUIREMENTS

The SWRCB adopted Resolution 68-16 regarding a "Statement of Policy with Respect to Maintaining High Quality of Waters in California." The SWRCB declared in this resolution that

any activity that produces or could produce a waste or increased volume or concentration of waste will be required to meet waste discharge requirements that will result in the best practicable treatment or control of the discharge necessary to ensure a nuisance will not occur and that high water quality will be maintained for the benefit to the people of the state. These waste discharge requirements are administered by the Central Valley Regional Water Quality Control Board through Basin Plan Waste Discharge Requirements and apply to the wastewater treatment plant that will serve the proposed project site.

2009 COMPREHENSIVE DELTA/WATER LEGISLATION

In November 2009, the California legislature passed the comprehensive 2009 Delta/Water Legislation. The package consists of five bills, the content of which reflects the inextricable linkages between the health of the California Delta and California's statewide water supply management practices and policies. Pertinent components of this legislation include:

- Groundwater monitoring: Local water agencies will be required to monitor groundwater elevations throughout the state, and to provide the data to DWR. This bill addresses the need for consistent, reliable data—currently not measured at all, or measured with wide inconsistencies—on groundwater levels;
- Water conservation for urban and agricultural users: Between now and 2020, California must achieve a 20 percent drop in urban per capita water use across the state; and
- Water diversion and use reporting: The legislation sets out new requirements for the water diversion statements that must be filed by DWR.

SENATE BILL X7-7

Senate Bill X7-7 was enacted on November 9, 2009 mandating water conservation targets and efficiency improvements for urban and agricultural water suppliers, respectively. There are 18 actions in this legislation for which the Department of Water Resources (DWR) is assigned as the lead agency. These actions have been designated by DWR as “projects” for implementation of the legislation.

The legislation requires that DWR implement certain provisions of the law through public processes. To meet this requirement, DWR has formed:

- An Urban Stakeholder Committee (USC); and
- An Agricultural Stakeholder Committee (ASC).

In addition, DWR is seeking public input through:

- Holding public workshops;
- Posting information on SB X7-7 Website;

- Convening a Commercial, Industrial, and Institutional (CII) Task Force with public process; and
- Rulemaking process.

RENEWABLE PORTFOLIO STANDARD PROGRAM [SENATE BILL 1078]

This program requires retail sellers of electricity to increase their purchases of electricity generated by renewable sources and establishes a goal of having 20% of California’s electricity generated by renewable sources by 2017. In 2010, the California Air Resources Board (CARB) extended this target for renewable energy resource use to 33% of total use by 2020. Increasing California’s renewable supplies will diminish the state’s heavy dependence on natural gas as a fuel for electric power generation.

LOCAL GOVERNMENT CONSTRUCTION AND DEMOLITION (C&D) GUIDE [SENATE BILL 1374]

This guide seeks to assist jurisdictions with diverting their C&D material, with a primary focus on CalRecycle (formerly California Integrated Waste Management Board) developing and adopting a model C&D diversion ordinance for voluntary use by California jurisdictions.

CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

A major component of the State Department of Public Health, Division of Drinking Water and Environmental Management, is the Drinking Water Program which regulates public water systems. Regulatory responsibilities include the enforcement of the federal and state Safe Drinking Water Acts, the regulatory oversight of public water systems, issuance of water treatment permits, and certification of drinking water treatment and distribution operators. State regulations for potable water are contained primarily within Titles 22 and 17, Chapter 5 of the California Code of Regulations.

The regulations governing recycled water are found in a combination of sources including the Health and Safety Code, Water Code, and Titles 22 and 17 of the California Code of Regulations. Issues related to treatment and distribution of recycled water are generally under the influence of the RWQCB, while issues related to use and quality of recycled water are the responsibility of the California Department of Public Health.

SB 610

Senate Bill 610 (SB 610) became effective January 1, 2002, and requires cities and counties in connection with CEQA review to consider water supply assessments to determine whether projected water supplies can meet the project’s anticipated water demand. SB 610 also requires additional factors to be considered in the preparation of urban water management plans and water supply assessments.

SB 610, under Water Code Section 10912(5) identifies a project as a proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.

CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed Assembly Bill 939, the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. The legislation requires each local jurisdiction in California to set diversion requirements of 25 percent in 1995 and 50 percent in 2000; establishes a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities; and authorizes local jurisdictions to impose fees based on the types or amounts of solid waste generated. In 2007, Senate Bill (SB) 1016, (Wiggins, Chapter 343, Statutes of 2008) introduced a new per capita disposal and goal measurement system which moves the emphasis from an estimated diversion measurement number to using an actual disposal measurement number as a per capita disposal rate factor. As such, the new disposal-based indicator (pounds per person per year) uses only two factors: a jurisdiction's population (or in some cases employment) and its disposal as reported by disposal facilities. The City of Turlock's disposal rate goal is 6.3 pounds per person per day and employment target is 21.2 pounds per employee per day.

CALIFORNIA PUBLIC UTILITIES COMMISSION

The California Public Utilities Commission (CPUC) regulates privately owned telecommunication, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. It is the responsibility of the CPUC to (1) assure California utility customers safe, reliable utility service at reasonable rates; (2) protect utility customers from fraud; and (3) promote a healthy California economy. The Public Utilities Code, adopted by the legislature, defines the jurisdiction of the CPUC.

AB 2926 SCHOOL IMPACT FEES

As of January 1987, State law allows school districts to levy three different levels of development fees directly on new residential, commercial, and industrial development (Government Code Section 65995). Level-one fees cannot exceed \$2.97 per square foot of residential construction and \$0.47 per square foot of commercial/industrial construction for K-12 facilities. Districts set their own fees within this limit based on a nexus study establishing their funding requirements. Since Proposition 1A was passed by the voters and SB 50 was passed by the State Legislature in 1996, school fees generated by new development are deemed legally sufficient mitigation of any impacts based on generation of students on school facilities.

SB 50

The Leroy F. Greene School Facilities Act of 1998 (SB 50) and the bond procedures under Proposition 1A of 1998 regulate school facilities financing and mitigation of land use approvals by setting fee caps, removing entitlement application denial authority from lead agencies, and

setting the CEQA standard for full and complete mitigation for school facilities. Prior to enactment of the legislation, a city or county had the authority to deny or require full mitigation for projects that required an amendment to a General Plan and/or a zone change. State law now prohibits a local agency from either denying approval of a land use project because of inadequate school facilities, or imposing school impact mitigation measures other than the designated fees provided for in the Government Code. Effective subsequent to 2006, if a statewide bond measure fails, SB 50 would again permit a city or county to deny or refuse to approve a development project that requires a legislative act on the basis of the inadequacy of school facilities. However, the city or county will not be able to require a higher fee than provided for in the original legislation.

QUIMBY ACT

Passed in 1975, the Quimby Act (California Government Code Section 66477) authorizes local agencies to establish an ordinance requiring new development to pay an in-lieu fee or dedicate land for park and recreation facilities to serve the subdivision. The required dedication and/or fee is based on the residential density, park land cost and other factors. Public land dedicated and/or fees collected pursuant to the Quimby Act may only be used for the purpose of developing new or rehabilitating existing park or recreational facilities. The dedication and/or fee allowed under State law is equivalent to providing three (3) to five (5) acres maximum of park land per one thousand (1,000) persons.

Local

STANISLAUS COUNTY

Storm Water Management Program

Stanislaus County has prepared a Storm Water Management Program developed to meet the term of the General Permit. The Program consists of the six minimum control measures established by the State Water Regional Control Board for Phase II storm water discharges. Implementation of these control measures are expected to result in significant reductions of pollutants discharged into receiving water bodies. Each control measure contains Best Management Practices (BMPs) necessary for proper storm water management. The BMPs contain specific tasks to meet the objective of that control measure. This Program is intended to be a 'living document with BMPs added and deleted as new management practices arise.

The six control measures include public education and outreach, public involvement and a participation program, an illicit discharge detection and elimination program, a construction site storm water runoff control program, a post-construction storm water management program for development and redevelopment projects, and a pollution prevention and good housekeeping for municipal operations program.

Emergency Operations Plan

The Office of Emergency Services (OES) Division is responsible for the day-to-day administration of Stanislaus County's disaster preparedness, mitigation, response and recovery programs. The Emergency Operations Plan details the roles of police, fire, ambulance and other services in the event of a major emergency. The Plan includes the Multi-Jurisdictional Hazard Mitigation Plan. This countywide Plan identifies risks posed by disasters, and identifies ways to minimize damage from those disasters. It is a comprehensive resource document that serves many purposes, including: enhancing public awareness and understanding, creating a decision tool for management, promoting compliance with State and federal program requirements, enhancing local policies for hazard mitigation capability, and providing inter-jurisdictional coordination.

Library Strategic Plan 2011-2015

In 2010, the Stanislaus County Board of Supervisors authorized a strategic planning process for the County Library. The Strategic Plan, developed by the Library Strategic Planning Committee in 2011, includes five-year goals with activities under consideration by the Library's management, as well as long term planning.

General Plan

The Stanislaus County General Plan establishes applicable policies related to public services and utilities that relevant to the project. Plan elements are abbreviated as follows Land Use – LU; Safety – SA; and Conservation – CO.

LU: Policy 22 - Future growth shall not exceed the capabilities/capacity of the provider of services such as sewer, water, public safety, solid waste management, road systems, schools, health care facilities, etc.

LU: Implementation Measure 22.3 - The County shall limit its approval of discretionary projects in spheres of influence to agricultural uses, churches, and projects recommended for approval by the city unless such projects are exempt from this implementation measure as a result of individual city/county agreements.

LU: SOI Policy - Whenever an application is to be considered which includes property within the sphere of influence (SOI) of a city or special district or areas of specific designation created by agreement between County and City, and when that property is considered for agricultural use which requires discretionary approval, the project should be referred to that city for comment. If the County finds that a project is inconsistent with the city's general plan designation, it shall not be approved. Agricultural use shall not be considered inconsistent if the only inconsistency is with a statement that a development within the urban transition area or sphere of influence shall be discouraged.

In the case of a proposed project within the SOI of a sanitary sewer district, domestic water district or community services district, the proposal shall be forwarded to the district board for comment.

SA: Goal 1 - Prevent loss of life and reduce property damage as a result of natural disasters.

SA: Policy 1 - The County will adopt (and implement as necessary) plan inclusive of the Multi-Jurisdictional Hazard Mitigation Plan, to minimize the impacts of natural and man-made disasters.

SA: Implementation Measure 1.2 - The County will follow the policies included in the adopted emergency plan. New development shall not conflict with policies included in that document.

SA: Policy 2 - Development should not be allowed in areas that are within the designated floodway.

SA: Implementation Measure 2.1 - Development within the 100-year flood boundary shall meet the requirements of Chapter 16.40 (Flood Damage Protection) of the County Code and within the designated floodway shall obtain Reclamation Board approval.

SA: Goal 2 - Minimize the effects of hazardous conditions that might cause loss of life and property.

SA: Policy 7 - Adequate fire and sheriff protection shall be provided.

SA: Implementation Measure 7.1 - The County shall continue to implement the funding strategies identified under Policy Twenty-Two of the Land Use Element.

SA: Implementation Measure 7.2 - All discretionary projects in the County shall be referred to the Fire Safety Department and to the appropriate fire district for comment. The comments of these agencies will be used to condition or recommend modifications of the project as it relates to fire safety and rescue issues.

SA: Implementation Measure 7.4 - Discretionary projects outside of fire districts shall be considered for approval only when they are found to include adequate fire protection.

SA: Implementation Measure 7.6 - All discretionary projects shall be referred to the Sheriff's Department for comment. Comments from the Sheriff will be used to either condition or modify the project.

SA: Implementation Measure 7.7 - All building permits and discretionary projects within the State Responsibility Areas, as identified by the California Department of Forestry and Fire Protection, shall meet the minimum development standards included in Article 1-5, Subchapter 2 SRA Fire Safe Regulations, Chapter 7 – Fire Protection, Division 1.5 –

Department of Forestry, Title 14 – Natural Resources, or more stringent specific standards as may be adopted by the Board of Supervisors for this County.

SA: Policy 9 - The County shall support the formation of improvement districts (including flood control districts) to eliminate safety hazards.

SA: Implementation Measure 9.2 - The County will work with the Fire Safety Department, the State Department of Forestry and Fire Protection and local fire districts to ensure that adequate fire suppression measures are provided in areas without access to a public water system. These measures may include restrictions on building materials as well as the provision of adequate access and appropriate facilities for suppressing a fire.

CO: Goal Seven - Support efforts to minimize the disposal of solid waste through source reduction, reuse, recycling, composting, and transformation activities.

CO: Policy 22 - The County will support the solid waste management hierarchy established by the California Public Resources Code, Section 40051, and actively promote the goals and objectives specified in the Countywide Integrated Waste Management Plan.

CO: Implementation Measure 22.5 - Encourage and promote activities, projects, legislation, businesses and industries that cause special wastes (e.g., food processing residue, demolition/construction waste, inert wastes, tires, de-watered sludge, household hazardous wastes, etc.) to be safely diverted from landfills or transformation facilities, including composting and co-composting operations.

Stanislaus County Code

Solid Waste and Drinking Water

Title 9 of the Stanislaus County Code includes ordinances regarding health and safety issues, including those for refuse (solid waste) collection (Title 9.02 through 9.10) and water wells (Title 9.36). Title 9.36 is intended to protect groundwater by regulating the location, construction, maintenance, abandonment and destruction of all wells which may affect the quality and potability of underground waters.

Stormwater Management and Discharge Control

Chapter 14.14 of the Stanislaus County Code contains regulations related to the discharge of non-stormwater discharge into the stormwater conveyance systems of the cities within the County, in order to reduce pollutants in urban stormwater discharges. The ordinances are also intended to assist in the protection and enhancement of water quality of water course, water bodies, and wetlands by reducing pollutants in stormwater discharges and prohibiting non-stormwater discharges into the storm drain systems.

Water Efficient Landscape Ordinance

Stanislaus County recently amended the Landscape Ordinance in compliance with AB 1881. Chapter 21.102 includes ordinances for landscaping and irrigation for structures on lots greater than 2,500 square feet. The ordinance is intended to encourage a reduction in water use for landscaping purposes.

TURLOCK GROUNDWATER BASIN DRAFT GROUNDWATER MANAGEMENT PLAN 2008

The Turlock Groundwater Basin Groundwater Management Plan provides an overview of the local agencies, land uses and status of groundwater resources in the Turlock Subbasin.

CITY OF TURLOCK GENERAL PLAN

The proposed project site is outside of the Turlock city limits (with the exception of the N. Washington Road right-of-way), but within the City's Planning Area Boundary. The Planning Area is the geographic area for which the General Plan establishes policies about future urban growth, long term agricultural activity, and natural resource conservation. The General Plan includes the following policies regarding lands within its Sphere of Influence (SOI):

Policy 2.9-h - Cooperate with the City/County line. Seek Stanislaus County cooperation in designating unincorporated land for uses compatible with adjacent City lands.

Policy 2.9-I - LAFCO approval for Sphere of Influence changes. Seek LAFCO approval of Sphere of Influence changes to reflect the General Plan Diagram, upon completion of the master plan updates for the sewer, water, and wastewater treatment systems, and upon completion of the Capital Facilities Fee update (within two years of adoption of the General Plan).

Policy 2.9-j - Fee sharing programs. Update the City's agreement with Stanislaus County regarding collection of the public facilities fee. The agreement should stipulate that the City will collect and pass on to the County development fees for County improvements, and the County will refer to the City applications for development in the City's Sphere of Influence.

The proposed project is also immediately west of the City's Study Area, which defines the outer limit of urban development over the next twenty years. Unincorporated areas within the Study Area shall be annexed into Turlock following an explicit phasing and master planning process. The intent is to limit development in the Study Area so that lands under agricultural production are not converted to other uses until urban development is imminent. The area on the eastern side of Washington Road is included in the City's Westside Industrial Specific Plan – an area planned only for industrial use, without residential development. Under this Specific Plan, expansion of wet and dry utilities and emergency services is not currently planned for the area outside the Study Area.

3.12.2 ENVIRONMENTAL SETTING

Fire Protection and Emergency Services

The Stanislaus Consolidated Fire Protection District provides fire protection and emergency services to the unincorporated areas of the County, as well as cooperating with the fire departments from incorporated cities within the county. The Fire Protection District headquarters is located at 3324 Topeka Street, Riverbank.

STATIONS

The District operates seven fire stations. The fire stations are staffed seven days a week, 24-hours a day. The fire stations, along with apparatus, are summarized in Table 3.12-1.

**Table 3.12-1
Fire Station Summary**

Station No.	Address	Distance from Project Site	Quantity	Apparatus Equipment
30	3324 Topeka St., Riverbank	19.5 miles		This station facilitates operations only
31	461 Mitchell Road, Modesto	10.8 miles	2	Type-one engines
			1	Medium rescue unit
			1	Hazardous materials response unit
32	4845 Yosemite Blvd., Modesto (Township of Empire)	12.6 miles	1	Type-one, 75' quint
			1	Type-one water tender
			1	Type-three engine
33	7737 Yosemite Blvd., Modesto (unincorporated area)	12.6 miles	2	Type-one engines
			1	Type-three engine
34	321 E Street, Waterford	17.5 miles	1	Type-one engine
			1	Type-one water tender
			1	Type-three engine
			1	Rescue boat
35	30198 Main Street, LaGrange	35.6 miles	1	Type-one engine
			1	Type-four engine
			1	Light rescue unit
36	3318 Topeka Street, Riverbank	19.5 miles	1	Type-one engines
			1	Type-three engine
			1	Type-one water tender
			1	Rescue boat

Source: Stanislaus Consolidated Fire Protection District website: <http://www.scfpd.us>

ORGANIZATION

Operations

The Stanislaus Consolidated Fire Protection District is a full-service, public safety organization. The career Operational staff consists of battalion chiefs, captains, engineers and firefighters working a consecutive 48-hour shift on a rotational schedule that comprises a 56-hour work week. In addition to the career personnel, volunteer/intern firefighters provide supplemental support. All Operational staff are directed to acquire and maintain skills/ proficiencies related to EMS, firefighting, rescue, and other operations.

The Deputy Chief is the Director of Operations, and leads and supervises the battalion chiefs as they respond to the fire chief's direction. A training captain's responsibilities and duties include planning, prioritizing, assigning, supervising, and participating in all training needs of the fire agency. He/she reports directly to the Deputy Chief.

The shift captains report to their assigned battalion chief. They document and maintain company records, respond to and mitigate various types of emergencies, and assure that the crew and equipment are always ready for immediate response. Captains must regularly inspect private and public facilities, provide information to the public during prevention activities, and train consistently to address any changes that may adversely impact their ability to adequately accomplish the duty of the fire service to the citizens of their community and the County.

The Operational staff respond to approximately 12 calls for emergency assistance every day, twenty-four hours a day.

Training

The Training Division's primary focus is to develop the intellectual and physical competencies of each fire department member, so that each member can expand his/her contributions to the fire service and the community and County. This division is responsible for conducting internal training to meet mandated training subject for Emergency Management Services (EMS) and firefighter didactic and manipulative skills.

Public Safety Education

The goal of these staff is to provide every citizen within the District the highest level of safety awareness training possible. The District currently provides a number of fire safety education programs for large and small groups of every age.

STAFFING

The Operations Division, which serves as the first responder to calls for service has the most personnel assigned to it. Personnel in the Operations Division include the following:

- 3 battalion chiefs;

- 15 captains;
- 21 engineers (currently 2 vacant positions);
- 6 firefighters; and
- Reserves, volunteers and interns.

PERFORMANCE

The Insurance Services Office (ISO) Public Protection Classification Program currently rates fire districts on a scale of 1 to 10, with 1 being the highest possible rating and 10 being the lowest. The ISO rating measures individual fire protection agencies against a Fire Suppression Rating Schedule, which includes such criteria as facilities and support for handling and dispatching fire alarms, first-alarm response and initial attack, and adequacy of local water supply for fire-suppression purposes. The ISO ratings are subsequently used to establish fire insurance premiums. The Stanislaus Consolidated Fire Protection District (Fire Stations 30 through 36) have an ISO rating of 7. The project area falls within the Mountain View Fire Protection District (Fire Station 1), located in Crows Landing, which has an ISO rating of 9. The area within this Fire Protection District is entirely rural and agricultural, with no City or unincorporated communities.

MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN AND MUTUAL AID RESPONSE PROGRAM

In cooperation with Stanislaus County, the Stanislaus Consolidated Fire Protection District has adopted a Local Multi-Jurisdictional Hazard Mitigation Plan: a countywide plan that identifies risks posed by disasters, and identifies ways to minimize damage from those disasters. Other departments and agencies, including the Stanislaus County Office of Education and other fire departments, school districts, and city agencies, also participate in the Local Multi-Jurisdictional Hazard Mitigation Plan.

The Fire Department participates in the California Master Mutual Aid Response program and maintains mutual aid agreements with other fire departments within Stanislaus County.

Police Protection

The Stanislaus County Sheriff's Department provides police protection throughout the unincorporated areas of the county. The Sheriff's Department is headquartered at 250 East Hackett Road, Modesto.

ORGANIZATION

The Sheriff's Department is lead by the Sheriff-Coroner and the Undersheriff. In addition to the Stanislaus Regional 911 operations, the Department includes investigations, patrol operations, the coroner's division, public safety, the men's jail, inmate programs and jail alternatives, adult detention, and court services. The Sheriff's Department includes a K9 unit, a mounted unit, a bomb squad, and other special teams. The Sheriff's Department also coordinates with the police departments from Turlock, Ceres, Oakdale, Waterford, Newman and Hughson, and with federal

FBI, DEA, IRS, and INS agents on the Stanislaus Drug Enforcement Agency. This agency is currently focusing efforts on the methamphetamine problem and major drug trafficking organizations.

Schools

The project area is within the boundaries of Stanislaus County. Most schools within the County are located in incorporated cities. However, the following schools are located in unincorporated communities:

- Denair Unified School District;
- Empire Union School District;
- Hickman School District;
- Keyes Union School District;
- Knights Ferry School District;
- Roberts Ferry Union School District;
- Salida Union School District; and
- Valley Home School District.

The project site is immediately west of Turlock's city limits and the City's WISP, which includes plans to develop the area for industrial and commercial use; no residences, schools, or parks are planned.

Parks and Recreation

Stanislaus County's park system comprises community parks and recreation corridors. There are 18 parks in unincorporated areas of the county, including Bonita Park and Pool in Crows Landing, Fox Grove on the Tuolumne River, and Laird Park on the San Joaquin River. Some facilities include basketball courts and/or baseball fields, picnic shelters and barbecue areas, playground equipment, soccer fields, restrooms, and informal play areas. Woodward Reservoir and Modesto Reservoir are also included in the County's park system. Other facilities, such as seasonal off-road vehicle areas in La Grange and Del Puerto Canyon, nature trails and fishing accesses are maintained by the County in response to other recreational needs.

Libraries

Stanislaus County Library provides services to patrons throughout the county, as well as other areas within the San Joaquin Valley. Permanent facilities are located in Modesto, Ceres, Denair, Empire, Hougson, Keyes, Newman, Oakdale, Patterson, Riverbank, Salida, Turlock, and Waterford.

Residents have access to 788,734 books, magazines, newspapers, audio books, videos, and DVD, valued at nearly \$19 million. Seventy two percent of county residents have library cards, and checked out 1.2 million items in 2011.

Water

SURFACE WATER

Agriculture and urban water supplies for Stanislaus County originate from both ground water and surface water. Irrigation of agricultural land is the largest consumptive use of water in the County. Stanislaus County has five irrigation water districts and 14 water districts. The main sources of irrigation water of the Stanislaus, Tuolumne and the San Joaquin rivers. Although these rivers contain water of excellent quality as they flow from the Sierra Nevada Mountains, the quality decreases as they flow west, due to both agricultural and domestic use and return. The San Joaquin River, in particular, serves as a drain for return water and domestic and industrial wastes through the entire San Joaquin Valley. The Tuolumne River water also suffers, due to agricultural return wastes and gas well wastes, before its confluence with the San Joaquin River (General Plan Support Documents, 1996).

GROUNDWATER

Groundwater is the major source of domestic and industrial water in Stanislaus County, and is used to supplement surface water for irrigation purposes when necessary. The quality of ground water cannot be controlled except as recharge. However, the purposes and quantity used can be controlled, and the quality of water returned as recharge is regulated in large part. In areas east of the San Joaquin River, including the proposed project area, ground water quality is higher than those areas in the western portion of the County.

WATER QUALITY

The County recommends that farmers throughout the San Joaquin River basin incorporate appropriate practices, such as those listed below, to help control various types of ground water and surface water contamination.

- Use of cover crops in vineyards and orchards
- Keep erosion-prone soils in permanent cover, especially along waterways to prevent bank erosion and siltation
- Use proper grazing management
- Use no-till and low-till practices
- Match irrigation methods to soil and topographic conditions and avoid runoff
- Construct in-channel structures to reduce runoff velocities
- Use tailwater recovery systems
- Construct sediment detention ponds

- Follow pesticide label directions and County Agricultural Commissioner’s permit requirements
- Install approved back-flow prevention devices or air gaps between water sources and irrigation systems
- When applying chemicals to sandy soils, choose an effective material with the lowest potential to move in the soil.

Depth of the water table varies throughout the county, but may be only a few feet deep around Turlock to several hundred feet. Although overall groundwater is good in areas east of the San Joaquin River, chemicals, including chloride, nitrate, arsenic, sodium, calcium, magnesium carbonate, DBCP, bicarbonate, and sulfate, may be present (California Groundwater Bulletin 118).

WATER SUPPLY PLANNING

Stanislaus County is within all or a portion of four subbasins within the San Joaquin River Hydrologic Region(s). The proposed project site is located within the Turlock Subbasin, which includes a total of 218,249 acres. The Subbasin is bordered on the west by the San Joaquin River, which flows from south to north, and by the Tuolumne River on the north, which flows from east to west. The Merced River flows along the southern boundary of the County and the Turlock Subbasin. This area is served by the Turlock Irrigation District, the Ballico-Cortez Water District, the Eastside Water District, and a small portion of the Merced Irrigation District (Groundwater Bulletin 118).

In 2007, Stanislaus County had a total of 171,634 irrigated acres, 17,273 urban acres, and 29,342 non-irrigated acres (primarily in the foothills of the Sierra Nevada Mountains on the eastern boundary of the County) (Stanislaus County Water Atlas, 2008). Using these figures, approximately 78.6 percent of the land in Stanislaus County was under irrigated agricultural uses. A summary of the water sources utilized is shown in Table 3.12-2.

**Table 3.12-2
Surface and Ground Water Utilized in the Tulare Subbasin**

	Surface Water (ac-ft/yr)*	Ground Water (ac-ft/yr)
Supply	518,000	235,000
Use		
Irrigation	451,000	168,000
Urban	67,000	0

Source: Stanislaus County Water Atlas, 2008

Although the table above indicates that no groundwater was utilized for urban purposes in 2008, the City of Turlock’s recently adopted General Plan (2012) and Urban Water Management Plan

(2011), provide information regarding the installation of new groundwater wells to supplement the City's needs through 2020.

The City expects to be able to meet water demand through groundwater extraction through 2020 by adding wells to extract the available water and infrastructure to deliver the water to the new facilities as the demand increases with buildout of the General Plan. In 2020, the City will supplement its groundwater with surface water.

Groundwater is managed in the Turlock Subbasin by the Turlock Groundwater Basin Groundwater Management Coordinating Committee. According to this source, urban land uses, irrigators in the Eastside and Ballico-Cortez water districts, and irrigators in the foothills and other non-District areas depend on groundwater for water supply. Both irrigated agricultural production and urban land use have increased significantly in the Subbasin since 1950. Until the 1990s an equilibrium was maintained on the inflow and outflow into and out of the Subbasin. Studies by the California Department of Water Resources suggest that groundwater storage decreased between 2002 and 2006. As a result of this decreased storage and increased groundwater use, the Subbasin may no longer be in equilibrium. However, because surface water from the Turlock Irrigation District is used to supply more than half of the total irrigation water applied within the Subbasin, a balance may continue to be possible.

The Turlock Groundwater Management Plan includes measures to protect groundwater, as well as surface water. Measures include:

- Protection of natural recharge areas through mapping and identification, education of the public and planning entities, and encouraging the maintenance of land use practices that promote ground water recharge;
- Feasibility evaluation of artificial recharge projects;
- Management and optimization of well field operations;
- Support of public health projects to protect water quality through proper well construction and destruction;
- Water quality management, beginning with conducting a hydrologic assessment to identify contaminant sources and develop strategies to control the migration and movement of poor quality water into or within the Subbasin;
- Continue the groundwater monitoring and subsidence monitoring program;
- Provide a forum for policy assessment and coordination of regional programs with policy implications or requirements;
- Continue promoting coordination and cooperation between water agencies; and

- Prepare a feasibility study of conjunctive use project to increase supply flexibility and promote recharge in years when water is available.

Additionally, there is concern that as currently proposed, changes to the existing Bay-Delta Plan will increase the flow requirement of water in the Merced, Stanislaus, and Tuolumne rivers. Since the Tuolumne River is the surface water supply source for the cities of Ceres, Modesto, and Turlock in Stanislaus County, the proposed increase of additional water will have an adverse impact on the underlying groundwater subbasin, by necessitating the three cities to pump more groundwater to make up for lost surface water.

Wastewater

The Turlock Regional Water Quality Control Facility (TRWQCF) provides tertiary treatment of wastewater from the cities of Turlock, Ceres and the unincorporated community service districts of Keyes and Denair. Effluent from the facility discharges to the Turlock Irrigation District (TID) Lateral No. 5 Drain (also known as the Harding Drain). The Harding Drain is an open, multipurpose drain that intercepts and conveys irrigation return flows as well as storm drain runoff and the TRWQCF's effluent. The Harding Drain discharges to the San Joaquin River. The San Joaquin River is designated an impaired water body under the authority of the Clean Water Act, Section 303(d). When a water body is listed as an impaired water body, the regulations require that no additional pollutants be discharged to the water body. Dilution credits will no longer be allowed for the effluent discharge from the TRWQCF, as the RWQCB determined that the TID Lateral No. 5 Drain was a tributary to the San Joaquin River. The regional Basin Plan requires that tributaries receive the same level of protection as the major water bodies. The discharge requirements include tertiary treatment (coagulation/flocculation and filtration), lower levels of biochemical oxygen demand (BOD), total suspended solids (TSS), ammonia, and more efficient disinfection.

According to County Code Title 16.10.040 and Stanislaus County's Measure X, primary and secondary on-site wastewater treatment is required for all new residential construction or commercial projects, except agricultural uses of the land that are permitted. Wastewater produced by non-residential uses, including agricultural, commercial, and industrial wastes, are also regulated by the State Water Resources Control Board on an individual basis.

Storm Drainage and Surface Water Runoff

The County currently protects surface water quality by requiring the implementation of Best Management Practices (BMPs) during the construction of new development projects and requires projects to comply with post-construction BMPs, as identified in the County's National Pollutant Discharge Elimination System (NPDES) 2011-2012 Storm Water Management Plan. Surface water quality is also protected by complying with the current State of California Construction General Permit Order 2009-0009-DWQ. In April 2003, the County filed a Notice of Intent to participate in the State's General Permit, in compliance with the federal stormwater quality regulations, 40 CFR Part 122 et. Seq. (Phase II), Porter-Cologne Water Quality Control Act Section 13376, and with the State Water Resources Control Board General Permit for Small Cities No. CAS000004. In addition to areas within urbanized areas, the General Permit includes

the communities of Empire, Keyes, and Salida, Crow's Landing, Denair, Diablo Grande, Del Rio, Grayson, Hickman, Knight's Ferry, La Grange, Sunset Oaks Estates, Valley Home and Westley, and the industrial area known as Beard Tract between Modesto and Empire.

In addition to the General Permit, the County provides public education, and has a number of practices in place to inform the public about dumping and other potential sources of surface water pollution. A Storm Water Pollution Prevention Program has been developed by County staff to track storm water related violations that occur in unincorporated areas. Farmers must also manage their operations to reduce runoff from water applied to crops treated with pesticides and fertilizers. These activities are administered by the Regional Water Quality Control Board through an Ag Waiver program.

Solid Waste

Four refuse collection agreements are administered by the County for the unincorporated areas, managed under the County-wide Integrated Waste Management Plan for the County and its nine cities. Stanislaus County is also responsible for administering and enforcing the Food Processing By-product Ordinance. The County administers the Service Agreement with Covanta Energy for operation of the Stanislaus Resource Recovery Facility and energy-from-waste project.

Solid waste from the project would be taken to the Fink Road landfill near Crows Landing, or to the Stanislaus Resource Recovery Facility (SRRF), a waste-to-energy facility, adjacent to the landfill. The waste-to-energy facility reduces the volume of waste going into the landfill by about 90 percent. According to the Solid Waste Management Division of the Stanislaus County Department of Environmental Resources, the Fink Road landfill—the only one operating in Stanislaus County—had capacity until 2017 for garbage (Class III waste) and 2023 for the waste-to-energy ash (Class II waste) as originally designed, with a total landfill capacity is 6.8 million tons. However, based on lower disposal rates, the County recently revised its projections for the life of the landfill to 2029 for Class III waste and 2043 for Class II. In addition, the County has initiated plans for an expansion and reconfiguration of the existing facility to extend its useful life by another 10 to 15 years beyond the revised projections. The expansion project would be complete prior to the scheduled original closure date of the landfill. In accordance with Public Resources Code Section 41000 et seq., a goal of 50 percent waste stream diversion through reduction and recycling has been established.

WASTE DIVERSION TARGETS

Public Resources Code Sections 41000 and 41300 et seq. require each city and county in the state to prepare a Source Reduction and Recycling Element (SRRE) to meet waste diversion reduction goals of 25 percent by 1995 and 50 percent by 2000.

The County's SRRE was adopted by the Board of Supervisors, and was later reviewed and approved by the California Integrated Waste Management Board (CIWMB) in 1995. The SRRE included source reduction, including recycling and composting activities for solid waste generated within the county. The study also detailed means of reducing commercial and

industrial sources of solid waste. Funding and public information components were also included.

In 2001, the Regional Solid Waste Planning Agency (RSWPA) was formed including Stanislaus County and the eight cities within the county. According to CalRecycle, the RSWPA's current per capita target is 6.3 pounds per person per day and employment target is 21.2 pounds per employee per day. In 2010, the RSWPA achieved 3.9 pounds per person per day and 16.0 pounds per employee per day.

Energy

The Turlock Irrigation District (TID) provides electricity to the southern portion of Stanislaus County, with power provided by Pacific Gas & Electric (PG&E) and the Modesto Irrigation District in the northern and middle sections of the County, respectively. PG&E provides natural gas service to the county. Below is a discussion of each energy source.

ELECTRICITY

Users in Turlock and the other areas in the southern one-third of the county receive their electricity supply from the Turlock Irrigation District (TID). Established in 1887 as the state's first publicly-owned irrigation district, TID supplies water to farmers and retail power to homes, businesses, and farms in Turlock and the surrounding area. TID was able to offer hydroelectric power beginning in 1923 with the construction of the Don Pedro Dam. Approximately 40 percent of TID's electricity is generated at the Don Pedro Dam and Powerhouse. To supplement power generated at Don Pedro, TID built numerous small hydroelectric plants on its canals, which use the gravity-fed system to generate power during periods of peak demand.

Natural gas power plants represent approximately 19 percent of TID's power generation capacity. TID operates three such plants: the Walnut Energy Center, the Walnut Power Plant, and the Almond Power Plant. TID also purchases power from numerous sources in northern California and the Pacific Northwest.

TID's electricity supply is split between power that the District generates and that which is purchased from other suppliers. TID generates just over half of its own supply and purchases the remainder. TID estimates that current electricity sources are not adequate to maintain a sufficient level of service over the next 20 years. However, TID is in the process of adding additional resources as part of its normal planning process and expects to be capable of maintaining sufficient service in future years.

Renewables

Currently, 6.5 percent of TID's electricity supply comes from renewable energy sources. Seventy percent of their renewable power supply is generated from geothermal energy, and TID also owns some solar, wind, and fuel cell facilities in the Napa area. TID is also investing in a large wind power site in the Columbia River Gorge, which will allow them to meet their State renewable requirement through 2025. Current State requirements are for power suppliers to

deliver at least 20 percent renewable energy by 2017 and 33 percent by 2020. TID's goal is to increase their renewable percentage by one to two percent per year in order to meet the requirement. TID is also currently working with the City of Turlock to develop a fuel cell plant in conjunction with the City's new wastewater treatment facility, which would utilize the facility's methane output to create energy.

The Stanislaus Resource Recovery Facility is an energy-from-waste facility that processes 800 tons per day of solid waste, generating up to 22.5 megawatts of renewable energy. This energy is sold to Pacific Gas and Electric Company (PG&E). The facility is a zero water discharge plant, which means that all waste water generated on-site is treated and reused in the process. The facility, Covanta Stanislaus, is located in the southwest corner of the county in the community of Crows Landing

NATURAL GAS

PG&E provides natural gas to all or part of 39 counties in California, including the project site, comprising most of the northern and central portions of the state. PG&E obtains more than 70 percent of its natural gas supplies from western Canada and the balance from U.S. sources. PG&E operates approximately 48,000 miles of transmission and distribution pipelines.

3.12.3 IMPACT EVALUATION CRITERIA

According to the CEQA Guidelines, a project will normally have significant adverse impacts associated with public services and utilities if it would:

Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times of other performance objectives for any of the public services:

- *Fire protection;*
- *Police protection;*
- *Schools;*
- *Parks; and*
- *Other public facilities.*

According to Appendix G of the CEQA Guidelines a project will normally be considered potentially significant if it will:

- a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.*
- b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.*

- c) *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.*
- d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.*
- e) *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.*
- f) *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.*
- g) *Comply with federal, state, and local statutes and regulations related to solid waste.*

3.12.4 IMPACTS AND MITIGATION MEASURES

Impact #3.12-1 – Increased demand for fire protection services and personnel.

The proposed project is located in the county immediately west of the city limits for the City of Turlock. Accordingly, the project area is within the Stanislaus County Fire Protection District, although response to a fire on the site could include both city and county fire services. The project includes the construction and operation of a 180,000 square foot warehouse and associated facilities for the receiving, storage, packing, and shipping of watermelons, sweet potatoes, beans, wheat, pumpkins, and squash. Several structures would be constructed in addition to the existing buildings on the site, and all would be required to comply with federal and State building and fire codes and other safety procedures, as well as with County General Plan policies.

Conclusion: Stanislaus County has impact fees that include fire facilities. In order to implement the goals and objectives of the County's general plan, and to mitigate the impacts caused by future development in the county, fire department facilities must be constructed. The Board of Supervisors has determined that an impact fee for county facilities that include the fire department are needed in order to finance these facilities and to pay for each development's fair share of the facilities' construction and acquisition costs.

Adherence to the existing policies of the Stanislaus County General Plan and payment of fire development-related impact fees will ensure that additional fire protection services and personnel are provided in the future. The increase in fire protection resulting from construction of additional facilities is a long-term objective that cannot be fully addressed in the timeframe needed to significantly improve response to the project area in the short term. However, with the incorporation of building codes and operations' safety requirements, impacts will be *less than significant*.

Mitigation Measure #3.12-1: The access to the site from Washington Road shall be provided with radio frequency gate opening devices (i.e. "Click-to-enter") in addition to the standard

police/fire bypass keyway. Manually operated gates across required fire access roadways are prohibited.

Effectiveness of Mitigation Measure: Implementation of this mitigation measure, in conjunction with payment of fire development impact fees and adherence to state and federal building codes and other requirements will result in impacts from the project to fire protection services to a level that is *less than significant*.

Impact #3.12-2 – Increased demand for law enforcement services.

The County collects impact fees specifically for Sheriff's Department services. The purpose of the fees is to implement the goals and objectives of the County's general plan. Additionally, to mitigate the impacts caused by future development in the county, certain sheriff's department facilities must be constructed. The Board of Supervisors has determined that a Sheriff's Department impact fee is needed in order to finance such facilities and to pay for each development's fair share of the facilities' construction and acquisition costs. Depending on the type facility being constructed, the County building department assesses a fee of \$9 per 1,000 square feet (warehouse facility) to \$47 per 1,000 square feet (large industrial facility) for Sheriff's Department fees.

Conclusion: Adherence to Stanislaus County General Plan policies and the payment of Sheriff's Department facilities fees will ensure that adequate law enforcement protection and public protection facilities are provided to serve the project area. The project is a warehouse, which will not increase the population of residents in the project area. It is not anticipated that the project will require construction of new law enforcement facilities to support the project. Therefore, there are *no impacts* associated with construction of new facilities as a result of the project.

Mitigation Measures: None required.

Impact #3.12-3 – Increased demand on public schools.

The proposed project is expected to employ up to 75 workers during its busiest season (June through September), with workers living in nearby Turlock. The project is not anticipated to induce growth in the area, or require the construction of new homes or increase the need for City services.

Conclusion: The project will not adversely impact or require additional school facilities, and there is *no impact* to the demand for public schools resulting from the project.

Mitigation Measures: No mitigation measures are required.

Impact #3.12-4 – Increased demand on parks and recreation.

Conclusion: The proposed project does not include the construction of residential uses that would require new parks. The project is located just outside the City limits, and would be

expected to attract City residents who would not need to relocate for work. Existing park facilities will not be impacted by this project. There will be *no impact* to the demand on park facilities resulting from the project.

Mitigation Measures: No mitigation measures are required.

Impact #3.12-5 – Increased demand on library services.

Conclusion: The proposed project does not include the construction of residential uses that would require new library facilities. Existing library facilities will not be impacted by this project. There will be *no impact* to the demand on library services resulting from the project.

Mitigation Measures: No mitigation measures are required.

Impact #3.12-6 – Increased demand on public protection facilities.

See the discussion on law enforcement protection provided under Impact #3.12-2.

Conclusion: Impacts would be *less than significant*.

Mitigation Measures: No additional mitigation measures are required.

Impact #3.12-7 – Increased demand on paramedic services.

In Stanislaus County, standards are regulated by the Mountain-Valley Emergency Medical Services Agency. Ambulance crews responding to a life-threatening emergency are expected to arrive at the scene within 11.5 minutes in suburban areas and in fewer than 20 minutes in county areas. American Medical Response covers Turlock and other areas of the county.

Although workers in packing facilities may have a higher likelihood of on-the-job injuries than in many other industries (U.S. Department of Labor Statistics and Research, 2000), many of the injuries sustained are musculoskeletal disorders that occur over time, and are not the result of falls or other isolated events. Per the California Department of Industrial Relations, the employer will develop an injury and illness prevention program, and workers will be trained on avoiding injuries in their workplace. The proposed project would not present any significant challenges to the ability of ambulance services to provide adequate ambulance services in a timely manner. Accordingly, the proposed project would have a less than significant impact on ambulance services.

Conclusion: *Less than significant* impact.

Mitigation Measures: None are required.

Impact #3.12-8 – Exceed wastewater treatment requirements of the Regional Water Quality Control Board, Central Valley Region.

The SWRCB adopted Resolution 68-16 regarding a “Statement of Policy with Respect to Maintaining High Quality Waters in California.” The SWRCB declared in this resolution that any activity that produces or could produce a waste or increased volume or concentration of waste will be required to meet waste discharge requirements that will result in the best practicable treatment or control of the discharge necessary to ensure a nuisance will not occur and that high water quality will be maintained for the benefit to the people of the state. These waste discharge requirements are administered by the Central Valley Regional Water Quality Control Board through Basin Plan Waste Discharge Requirements and apply if a wastewater treatment plant were to serve the proposed project site.

The project will result in additional wastewater, almost exclusively from washing fruit or vegetables before packaging. During the busiest months it is anticipated that up to 6,000 gallons per week would be used, and would then directed to adjacent fields as irrigation water. This water will not contain chlorine or other additives, except possibly enzymes, and will not require treatment before being transported to nearby agricultural fields. Because the wastewater will not be released offsite into a public owned sanitary sewer collection system, the California Regional Water Quality Control Board Waste Discharge Requirement (WDR) agreement is not required.

Conclusion: Avila and Sons is not required to receive an executed WDR from the RWQCB prior to discharge of additional wastewater, as all water used will remain on site or be utilized on adjacent properties for irrigation purposes. Therefore, the impact is *less than significant* resulting from additional wastewater.

Mitigation Measures: None are required.

Impact #3.12-9 – Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Water used on site for washing purposes, as well as water used by employees for sanitation and cleaning will be supplied by an existing well. The proposed project would use approximately 2.12 acre feet of water per year for all combined purposes. Wastewater resulting from the washing process will be applied to nearby fields, and will not require prior treatment.

Waste water generated from hand washing stations, restrooms, or other employee facilities would adhere to Stanislaus County requirements of both the Uniform Plumbing Code and the County Environmental Health Department for the installation and operation of an on-site, commercial septic system. The facility would have a maximum of 75 employees. During the busiest season (June through September), employees were estimated to use a total of 9,375 gallons of water per week. These employees would work two or three shifts and all would not be on site at one time. The septic system would be calculated for size based on an estimated use of 25 gallons/day per employee. The sewage disposal system would probably require an aerobic treatment unit, and not septic tanks, per County requirements.

An 800 gallon per minute (GPM) well will provide water for washing produce and sanitation, and an existing 25 GPM well can also be used for washing produce. The use of groundwater for this purpose is discussed in greater detail in Section 3.9.4

Conclusion: The project will not require the construction or expansion of existing water or wastewater facilities. No other water sources exist or are proposed. There is *no impact*

Mitigation Measures: None are required.

Impact #3.12-10 – Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

The proposed project will require installation and operation of a new or expanded retention basin, as the existing basin provides storage for 0.08 acres of water storage. The proposed project is subject to the requirements of the NPDES Permit adopted by the SWRCB. In order to be granted coverage, the applicant must submit a Notice of Intent to comply with the general permit along with a site plan map and fee to the SWRCB prior to starting construction. Additionally, as part of the NPDES process, the applicant must prepare a Storm Water Pollution Prevention Plan (SWPPP) according to the latest regulations (effective July 1, 2010) to be retained onsite. The SWPPP must include BMPs that, when implemented, prevent storm water quality degradation to the extent practical by preventing sediments and other pollutants from leaving the project site (United States Environmental Protection Agency 2013).

Construction activity subject to this permit includes clearing, grading, grubbing, and disturbance to the ground for activities such as excavation. The drainage basin will prevent on-site drainage from flowing off-site, and will not have significant environmental effects on the site. Water stored in the basin will disperse by way of evapotranspiration. The basin would be used to store stormwater from the site only, and would not cause negative environmental effects. The project will also be in compliance with the Industrial Storm Water General Permit Order No. 97-03-DWQ as appropriate, which further regulates stormwater discharges for industrial sites.

During the construction phase of the project, Best Management Practices (BMPs), in compliance with MS4 permit requirements will be implemented to ensure that on-site pollutants and runoff is controlled. These BMPs typically include dust control measures, control and clean up of track out, and installation of straw or other waddles to control surface water runoff. Low Impact Development standards will be included as well, where appropriate.

Conclusion: With the implementation of BMPs and other measures as required under the NPDES General Permit and the Phase I and II MS4 permits, the project's stormwater impact is *less than significant*.

Mitigation Measures: None are required.

Impact #3.12-11 – Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

The project does not qualify under SB 610, under Water Code Section 10912(5) as a “Project” (a proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area). A “project,” as defined under SR 610 requires that water supply assessments be conducted and that the “project” be considered in the preparation of urban water management plans and water supply assessments.

The proposed project will use a maximum of 1,000 gallons per day during the busiest seasons and approximately 335 gallons per day during the slower seasons, primarily for rinsing fruit and vegetables. Water would be extracted from an existing, on-site, agricultural well, which produces water at a rate of 800 GPM. Washing water may be used to irrigate the adjacent fields, so that less surface water would be needed for irrigation purposes. No new entitlements will be needed.

Conclusion: The project will have *a less than significant* impact on the County’s ability to serve existing water users.

Mitigation Measures: None are required.

Impact #3.12-12 – Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.

An off-site wastewater treatment provider will not be required for the project. Wastewater resulting from employee’s use (e.g. bathroom and hand washing facilities) will be treated using an on-site septic system that will be designed in accordance with the County Environmental Health Department requirements. Construction of the facility will begin once the required permit from the County has been granted. The existing residential septic system will be expanded to ensure that there is capacity for the estimated 75 employees. As noted under 3.15.5(b), waste water generated from hand washing stations, restrooms, or other employee facilities would also adhere to Stanislaus County requirements to meet the Uniform Plumbing Code for the installation and operation of an on-site, commercial septic system.

Conclusion: The project will have *a less than significant* impact on the County’s or nearby City’s ability to serve existing wastewater users.

Mitigation Measures: None are required.

Impact #3.12-13 – Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs.

The project will include construction of the facility and operation of the produce processing equipment. Construction activities are expected to generate debris typical of this activity. Solid waste from the project would be taken to the Fink Road landfill near Crows Landing, or to the

Stanislaus Resource Recovery Facility (SRRF), a waste-to-energy facility, adjacent to the landfill. The waste-to-energy facility reduces the volume of waste going into the landfill by about 90 percent. According to the Solid Waste Management Division of the Stanislaus County Department of Environmental Resources, the Fink Road landfill had capacity until 2017 for garbage (Class III waste) and 2023 for the waste-to-energy ash (Class II waste) as originally designed, with a total landfill capacity is 6.8 million tons. However, based on lower disposal rates, the County recently revised its projections for the life of the landfill to 2029 for Class III waste and 2043 for Class II. In addition, the County has initiated plans for an expansion and reconfiguration of the existing facility to extend its useful life by another 10 to 15 years beyond the revised projections. The expansion project would be complete prior to the scheduled original closure date of the landfill. In accordance with Public Resources Code Section 41000 et seq., a goal of 50 percent waste stream diversion through reduction and recycling has been established.

In compliance with State, federal, and local regulations, including the Stanislaus County General Plan and Zoning Ordinance, materials will be recycled or composed to the extent possible. Facilities operations will produce solid waste in the form of culled fruit that may be removed due to bruising or other defect. Up to approximately 0.5 cubic yards of organic waste (culls and pieces of produce) may be produced daily. This will be spread over the ground on the site, and periodically tilled into the soil. The project will comply with state, federal, and local regulations regarding disposal of solid waste.

Conclusion: The proposed project would not generate the need for new solid waste facilities and the impacts would be *less than significant*.

Mitigation Measures: None are required.

Impact #3.12-14 – Comply with federal, state, and local statutes and regulations related to solid waste.

Federal regulations include the Resource Conservation and Recovery Act that regulates the potential health and environmental problems associated with solid waste hazards and non-hazardous wastes. State regulations include Local Government Construction and Demolition (C&D) Guide, also known as Senate Bill 1374. This guide seeks to assist jurisdictions with diverting their C&D material, with a primary focus on CalRecycle developing and adopting a model C&D diversion ordinance for voluntary use by California jurisdictions. Another State requirement is the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. This legislation required each local jurisdiction in California to set diversion requirements for solid waste. Legislation was updated in 2007, so that new disposal-based indicator (pounds per person per year) uses only two factors: a jurisdiction's population (or in some cases employment) and its disposal as reported by disposal facilities. The City of Turlock's disposal rate goal is 6.3 pounds per person per day and employment target is 21.2 pounds per employee per day. Although CalRecycle encourages composting of solid waste from agricultural facilities, there are no State requirements to compost culls and solid wastes strained from washing water at packing facilities.

Title 9 of the Stanislaus County Code includes ordinances regarding ordinances for refuse (solid waste) collection (Title 9.02 through 9.10). The County's Land Use Element includes Policy 22, which states that, "*Future growth shall not exceed the capabilities/capacity of the provider of services such as sewer, water, public safety, solid waste management, road systems, schools, health care facilities, etc.*" The Conservation Element includes a goal (#7) to, "*Support efforts to minimize the disposal of solid waste through source reduction, reuse, recycling, composting, and transformation activities.*"

During the construction of structures on the site, construction wastes will be disposed of properly and hauled to the Fink Road Landfill in Crows Landing. The operation of the project will result in organic waste that will remain on site, and be tilled into the soil to improve soil conditions for crop production. All other solid waste produced as a result of the washing, packing, and loading operations will be disposed of at the Fink Road landfill. Wastes are not expected to exceed the State target levels.

Conclusion: The proposed project would comply with federal, State and local statutes and regulations related to solid waste, and the impacts would be *less than significant*.

Mitigation Measures: None are required.

3.13 Transportation and Traffic

This section describes the existing transportation systems and traffic and potential effects from project implementation on area roadways and transportation systems. Descriptions and analysis in this section are based on a traffic impact study prepared by KD Anderson & Associates, Inc., dated October 15, 2013.

3.13.1 REGULATORY SETTING

Federal

FEDERAL CLEAN AIR ACT

The Clean Air Act (CAA) requires that, in areas experiencing air quality problems, transportation planning must be consistent with air quality goals. This is determined through the transportation conformity process. In some areas, this process has forced State and local transportation officials to make tough decisions in order to meet both air quality and mobility goals. Where CAA goals were not being met, some State and local transportation officials have been challenged to find ways to reduce vehicle emissions by developing transportation plans, TIPs, and projects that will alter travel patterns, reduce the number of single-occupant vehicles, and make alternative modes of transportation (such as transit and bicycles) an increasingly important part of the transportation network (Federal Highway Administration 2013).

REGIONAL SURFACE TRANSPORTATION PROGRAM

Road improvements to city and county roads are sometimes funded with federal grants. Grants often require a match of funding from the local jurisdiction. Funds are directed to projects and programs for a broad variety of streets and road work. Typical projects that qualify to be funded under this federal program are roadway surfacing and reconstruction.

CONGESTION MITIGATION AND AIR QUALITY PROGRAM

Funds are directed to transportation projects and programs which contribute to the attainment or maintenance of National Ambient Air Quality Standards in non-attainment or air quality maintenance areas for ozone, carbon monoxide, or particulate matter under provisions in the Federal Clean Air Act.

State

SB 375

Following the passage of Assembly Bill 32 (AB 32) – The California Global Warming Solutions Act of 2006, which specifies that by the year 2020, greenhouse gas (GHG) emissions within the State must be at 1990 levels, Senate Bill 375 (SB 375) – The Sustainable Communities and Climate Protection Act of 2008 was signed into law as the framework for achieving greenhouse gas emissions reductions from land use and transportation planning.

SB 375 includes four primary findings related to the RTP/SCS development process:

- That the ARB develop regional GHG emission reduction targets for cars and light trucks for each of the 18 MPOs in California, including Stan COG;
- That the Stanislaus COG, during the next RTP update is required to prepare an SCS that specifies how the GHG emission reduction target set by ARB will be achieved. If the target cannot be met through the SCS, then an Alternative Planning Strategy (APS) shall be prepared by StanCOG;
- Streamlines CEQA requirements for specific residential and mixed-use developments that are consistent with the Stanislaus County SCS or APS (as determined by ARB) to achieve regional GHG emissions reduction target; and
- Requires that StanCOG conduct the Regional Housing Needs Assessment (RHNA) process consistent with the RTP/SCS process and that the RHNA allocations be consistent with the development pattern in the SCS.

AB 1358 – CALIFORNIA COMPLETE STREETS ACT

On September 30, 2008 Governor Arnold Schwarzenegger signed Assembly Bill 1358, the California Complete Streets Act. The Act states: “In order to fulfill the commitment to reduce greenhouse gas emissions, make the most efficient use of urban land and transportation infrastructure, and improve public health by encouraging physical activity, transportation planners must find innovative ways to reduce vehicle miles traveled (VMT) and to shift from short trips in the automobile to biking, walking and use of public transit.”

The legislation impacts local general plans by adding the following language to Government Code Section 65302(b)(2)(A) and (B):

- (A) Commencing January 1, 2011, upon any substantial revision of the circulation element, the legislative body shall modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of the streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan; and
- (B) For the purposes of this paragraph, “users of streets, roads, and highways” means bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors.

Regional

REGIONAL TRANSPORTATION PLAN

The adopted Regional Transportation Plan (RTP) (2011) establishes regional transportation policy for the Stanislaus County region and focuses on achieving a coordinated and balanced

multimodal transportation system, while maintaining the integrity of the existing system. The RTP includes projects located throughout Stanislaus County region for all forms or modes of transportation, including automobiles, transit, non-motorized (including bicycle), passenger rail, freight, and aviation facilities. The RTP reflects a fiscally constrained environment and identifies those projects (considered as Tier 1 projects) that have a secure or approved funding source.

Local

STANISLAUS COUNTY

General Plan

Pursuant to California Code Title 14, Section 65300 the 1994 Stanislaus County General Plan addresses transportation and traffic in its Circulation Element, Land Use Element, and Agricultural Element. The plan also includes local, regional, State, and federal programs and regulations as well as a comprehensive set of guiding and implementing policies. The following policies are applicable to the proposed project site:

CIR: Policy One-Development will be permitted only when facilities for circulation exist, or will exist as part of the development, to adequately handle increased traffic;

CIR: Policy Two- Circulation systems shall be designed and maintained to promote safety and minimize traffic congestion;

LU: Policy Twenty-Three- New development shall pay its fair share of the cost of cumulative impacts on circulation and transit systems; and

AG: Policy 3.1- The County shall continue to coordinate with the San Joaquin Valley Air Pollution Control District.

Additional Elements may apply indirectly to transportation and traffic related impacts. In addition to the County's General Plan, the proposed project would have to comply with the Stanislaus County Code.

Stanislaus County Code

The Stanislaus County Code Title 11, Chapters 11.04 through 11.43 govern certain activities throughout the County that are related to the transportation and traffic section of this report. The proposed project's construction phases would include transporting heavy equipment to the site. After the construction phases are complete, trucks will haul produce on county roads to access other routes, and employees will commute to the site. Compliance with the following regulations will be required:

Title 11, Chapter 11.04 Speed Limits;

Title 11, Chapter 11.16 Highway Weight Limits and Alternative Routes; and

Title 11, Chapter 11.22 Construction and Maintenance Areas.

The North Washington Road right-of-way is in the City of Turlock's Westside Industrial Specific Plan (WISP) limits and designated as an expressway in the City's General Plan. Consequently, the proposed project will also be subject to the WISP with regard to road frontage improvements. The next section provides an overview of applicable regulations.

Stanislaus Council of Governments (StanCOG) Draft Final Non-Motorized Transportation Master Plan

The StanCOG Non-Motorized Transportation Plan (Plan) was updated in September 2013. StanCOG is the Regional Transportation Planning Agency (RTPA) for Stanislaus County. The Plan was prepared to prioritize investments that serve countywide and local interests, increase accessibility of competitive grant funding sources, and update the 2008 StanCOG Non-Motorized Transportation Plan. A countywide understanding of existing conditions and countywide priority bicycle and pedestrian networks as well as existing conditions analysis and recommended network for the unincorporated County and each of the nine Stanislaus County cities is provided in the Plan. Each jurisdiction has a specific stand alone chapter, which can be adopted by local agencies. Chapter 11 is the stand alone chapter for the City of Turlock. The following goals and objectives are included in the plan:

Goal 1: Increase Bicycle and Pedestrian Access and Safety:

- Objective 1.A: Implement the StanCOG Countywide Bicycle and Pedestrian Master Plan, which identifies existing conditions and planned networks, and provides specific short-term and longterm recommendations for countywide priority facilities and programs, including near-term (five to ten-year) priority projects;
- Objective 1.B: Complete a continuous network of bikeways and pedestrian facilities that are feasible, fundable, and serve the needs of bicyclists and pedestrians, especially for travel to employment centers, schools, commercial districts, transit stations, and institutions;
- Objective 1.C Objective 1.C: Address immediate and future safety needs for all roadway users, particularly bicyclists and pedestrians, who are the most vulnerable roadway users;
- Objective 1.D: Improve access and integration with transit for bicycling and walking trips.

Goal 2: Increase Bicycle and Pedestrian Trips:

- Objective 2.A: Include bikeways and pedestrians facilities in all appropriate future development projects to facilitate on-site circulation and connections to the proposed system; and
- Objective 2.B: Provide secure, covered short- and long-term bicycle parking in employment and commercial areas, in multi-family housing, at schools, and at transit facilities.

Goal 3: Improve Regional & Local Connections:

- Objective 3.A: Complete a network of bikeways that allow for intercity travel between Stanislaus County communities; and
- Objective 3 B: Align countywide bikeways through Stanislaus County cities such that local needs and destinations are served.

CITY OF TURLOCK

Westside Industrial Specific Plan

As previously mentioned, of the entire right-of-way width of North Washington Road is in the Turlock city limits. The road is classified as an expressway in the Turlock General Plan. In addition to landscape screening for onsite parking areas, frontage improvements including curb, gutter, and sidewalk will be required along with a right turn lane into the project site. The proposed driveway would be aligned with the new traffic signal into the Blue Diamond facility on North Washington Road. All of these activities would generate traffic and be directly related to transportation issues. Compliance with the WISP will include the following policies:

I-P- 1: Continue to monitor traffic service levels and implement improvements prior to deterioration in LOS to below the stated standard. (GP Policy 5.1-i);

I-P- 3: Emphasize routes for major truck traffic and out-of-area employees on the west side of the Plan Area;

I-P- 4: Emphasize access for resident employees on east-west circulation, notably Fulkerth Road, West Canal Drive, Castor Street and West Linwood Avenue;

I-P- 7: Truck traffic, other than local delivery trucks, shall be limited to the primary streets: Fulkerth Road, West Main Street, West Linwood Avenue, South Walnut Avenue, Washington Road and Tegner Road;

I-P- 11: Developments along Tegner Road, Washington Road and West Main Street shall be required to consolidate or limit driveways in order to minimize traffic conflicts consistent with General Plan Table 5.2-B, Expressway Design and Access Standards;

LU-P 2: All development shall comply with design standards established in this Specific Plan;

LU-P 3: Land use should be coordinated with reasonably foreseeable public transportation systems to ensure that land uses with a projected average employment density of 20 or more employees per acre are located within 1200 feet of likely transit routes;

LU-P 4: Land use should be allocated so that the destination for heavy truck traffic is generally located on the west side of the Plan Area with access from Washington Road; and

LU-P 8: Development will occur in phases linked to specific infrastructure improvements as defined in Section 5, Implementation.\

Chapters 5 and 3 of the WISP provide a detailed overview of the specific plan area including its infrastructure and services and land use objectives as related to traffic and transportation. The plan can be accessed at the City of Turlock's website using the following path:

<http://www.ci.turlock.ca.us/pdfink.asp?pdf=documents/developmentservices/planning/guidelines/WISP.pdf?o=o&title=Westside%20Industrial%20Specific%20Plan>

3.13.2 PHYSICAL SETTING

Study Area Roads

Washington Road: is a north south two lane roadway that traverses Stanislaus County on the west side of Turlock. The Turlock city limits and Sphere of Influence encompasses all of Washington Road along the frontage of the project site. The road extends from Taylor Road in the north to Riverside Avenue southwest of Hilmar. In the project vicinity the roadway is generally a two-lane rural road with full access. Mid-week traffic counts conducted in June 2013 shows that Washington Road has an Average Daily Traffic (ADT) volume of about 2,880 vehicles per day. Based on counts conducted in May 2010 truck traffic along Washington Road is about 2.5% of the daily trips for 3+ axles and 10% of the daily trips for 2 axles. The Turlock 2012 General Plan Update identifies Washington Road as a four-lane Expressway with a turn median.

STUDY AREA INTERSECTIONS

The quality of traffic flow is often governed by the operation of major intersections.

Intersections selected for evaluation in consultation with Stanislaus County staff include:

1. Washington Road / Fulkerth Road (all-way stop);
2. Washington Road / Main Street (all-way stop); and
3. Washington Road / Blue Diamond Growers (signal).

The Washington Road / Fulkerth Road intersection: is a rural access intersection for motorists along Fulkerth Road traveling between farmland to the west and SR 99 and Turlock to the east. This intersection is all-way stop controlled. All approaches are single lanes; however, Fulkerth Road is offset by about 12 feet on either side of Washington Road; Fulkerth Road west of Washington Road is shifted north of the west leg.

The Washington Road / Main Street intersection: provides access along a major east-west arterial (Main Street) through Stanislaus County extending from downtown Turlock east of SR 99 west

to downtown Patterson. This intersection is within a rural area of the County and is all-way stop controlled. The Washington Road approaches are single lane while the Main Street approaches include a left turn lane and a through-right lane.

The Washington Road / Blue Diamond Growers intersection: provides access to the Blue Diamond Growers processing plant located on the east side of the intersection. The intersection includes southbound left turn and through lanes, northbound right turn and through lanes and a westbound lane providing access to both northbound and southbound Washington Road. The intersection is signalized with a dedicated left turn phase for southbound to eastbound movements.

LEVEL OF SERVICE

Level of Service (LOS) is a qualitative measure of traffic operating conditions whereby a letter grade "A" through "F", corresponding to progressively worsening operating conditions, is assigned to an intersection or roadway segment. Table 3.13-1 presents the characteristics associated with each LOS grade.

**Table 3.13-1
Level of Service Definition**

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
"A"	Uncongested operations, all queues clear in a single-signal cycle. Delay ≤ 10.0 sec	Little or no delay. Delay ≤ 10 sec/veh	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. Delay > 10.0 sec and ≤ 20.0 sec	Short traffic delays. Delay > 10 sec/veh and ≤ 15 sec/veh	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. Delay > 20.0 sec and ≤ 35.0 sec	Average traffic delays. Delay > 15 sec/veh and ≤ 25 sec/veh	Ability to maneuver and select operating speed affected.
"D"	Significant congestions of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay > 35.0 sec and ≤ 55.0 sec	Long traffic delays. Delay > 25 sec/veh and ≤ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). Delay > 55.0 sec and ≤ 80.0 sec	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and ≤ 50 sec/veh	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. Delay > 80.0 sec	Intersection blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.

Sources: Transportation Research Board, 2000.

The 2010 Highway Capacity Manual (HCM) presents methodologies for calculating practical capacity and LOS at intersections. At signalized intersections and intersections controlled by all-way stop signs, traffic conditions are described in terms of the average length of the delays experienced by all motorists. Intersection configuration, traffic volumes and traffic signal timing are all factors that enter into determination of the length of average delay and the resulting LOS. One other factor that was considered in the HCM analysis was the increased percentage of truck traffic attributed to the projected along the study roadways. The 'Heavy Vehicle' percentage was increased to a minimum of 10% to account for this added truck traffic.

The delays experienced at intersections controlled by side street stop signs are different. Motorists waiting to turn must yield the right of way to through traffic, and the length of delays can vary on each approach to the intersection. For this analysis the length of delays experienced by motorists on each approach has been calculated.

A traffic impact is considered significant if it renders an unacceptable LOS on a street segment or at a signalized intersection, or if it worsens already unacceptable conditions on a street segment or at a signalized intersection. Local jurisdictions adopt minimum LOS standards for use in traffic studies and environmental impact reports. Stanislaus County employs LOS C as the minimum standard in rural areas outside of community boundaries, while LOS D is acceptable in urban areas. The Turlock 2012 General Plan Update indicates that LOS D is the city's minimum standard. Since the study intersections are within the City's Sphere of Influence the most recently published City guidelines were used as the threshold levels; however, LOS is shown for both agencies.

At unsignalized intersections, a traffic impact may be considered "adverse but not significant" if the agency LOS standard is exceeded but the projected traffic does not satisfy traffic signal warrants. Under these conditions, several methods are available to alleviate delays to stop controlled vehicles. These may include adding turn lanes, adding acceleration / two-way left turn lanes, or installation of a traffic signal. The unmet signal warrants would imply that installing a traffic signal may reduce the delay for the stop-controlled vehicles but may not justify the new delays that would be incurred by the major street traffic (which is currently not stopped). Under these circumstances, installation of a signal would not be recommended and the substandard LOS for stop-controlled vehicles would be considered an "adverse but not significant" impact.

Roadway Segment Level of Service

The quality of traffic flow can also be described in general terms based on the daily traffic volume occurring on individual roadway segments. Agencies typically make use of general LOS thresholds that equate daily traffic volume to peak hour LOS.

The Stanislaus County Congestion Management Plan (CMP) and Regional Transportation Plan (RTP) make use of LOS thresholds originally developed by the Florida Department of Transportation. These thresholds identify typical daily traffic volumes that would be expected to result in LOS B, C, D or E conditions at major intersections during the peak hour. Table 3.13-2 presents the facility classification guidelines.

Washington Road is within the Turlock city limits and Sphere of Influence; therefore, LOS criteria for roadway segments within the City were also considered. Table 3.13-2 also presents the classification guidelines for City roadways.

**Table 3.13-2
Roadway Segment Level of Service Definitions**

Street Classification	Lanes	Daily Traffic Volume at LOS				
		LOS A	LOS B (v/c < 0.45)	LOS C (v/c < 0.60)	LOS D (v/c < 0.90)	LOS E (v/c < 1.00)
Collector	2	‡	5,800	7,700	11,600	12,900
		(8,000)	(9,000)	(10,000)	(11,000)	(12,000)
Arterial	2	‡	7,000	9,200	13,700	15,450
		(10,000)	(12,000)	(13,000)	(15,000)	(16,000)
Expressway	4	‡	15,000	20,100	30,200	33,200
		(20,000)	(23,000)	(26,000)	(29,000)	(32,000)
	6	‡	16,200	21,600	32,400	36,000
		(23,000)	(27,000)	(31,000)	(35,000)	(38,000)
		‡	23,400	31,200	46,800	52,000
		(35,000)	(40,000)	(46,000)	(52,000)	(57,000)

Source: Transportation Research Board, 2000.

Notes: x – Stanislaus County, † - 6-lane divided expressway with left turn lane, (x) - City of Turlock criteria (2006 WISP), ‡ - no information available, * - 4-lane divided arterial with left turn lane

According to the City’s guidelines for arterial roads with 2 lanes and a daily traffic volume of 0 to 10,000, the LOS is A. For daily traffic volumes between 15,450 and 16,000, the LOS is E. Four lane arterial roads with a daily traffic count of 20,000 is classified as LOS A. While a 4 lane arterial with traffic volumes between 32,000 and 33,200 is LOS E.

Existing Intersection Levels of Service

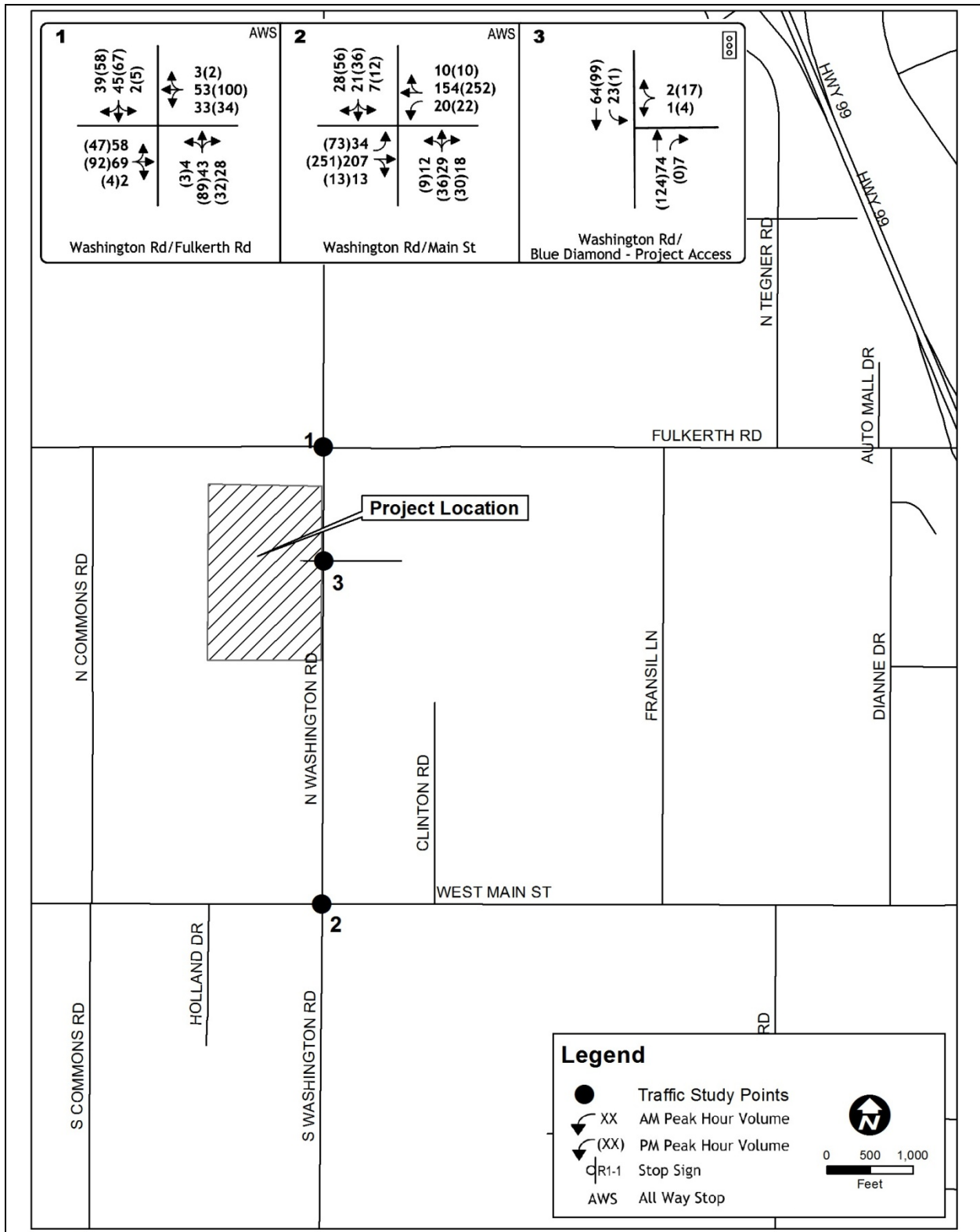
The “Traffic Impact Analysis for Washington Road Warehouse” (Appendix F) was completed by KD Anderson & Associates, Inc. on October 15, 2013. Figure 3.13-1 presents the existing traffic volumes and land configurations, while Table 3.13-3 summarizes the results of LOS for each study intersection. The LOS calculations are provided in the Appendix.

All study intersections currently operate at LOS B conditions or better and are within adopted standards at all study locations. Neither of the unsignalized intersections carries traffic volumes that satisfy peak hour traffic signal warrants.

3.13.3 IMPACT EVALUATION CRITERIA

Analysis Methodology

The methodology used to prepare Section 3.13 of this report included reviewing and applying information from the traffic impact report that was completed by KD Anderson & Associates, Inc. on October 15, 2013. Since the study intersections and roadway segment are within the City’s Sphere of Influence, the most recently published City guidelines were used as the threshold levels. The Turlock 2012 General Plan Update indicates that LOS D is the City’s minimum standard.



EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Figure 3.13-1

**Table 3.13-3
Existing Intersection Levels of Service**

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour		Meets Peak Hour Signal Warrants
		Average Delay (Seconds)	LOS	Average Delay (Seconds)	LOS	
1. Washington Rd / Fulkerth Rd	All-Way					
Overall	Stop	8.4	A	9.2	A	No
NB		8.1	A	9.0	A	
SB		8.1	A	8.9	A	
EB		8.7	A	9.4	A	
WB		8.4	A	9.3	A	
2. Washington Rd / Main St	All-Way					
Overall	Stop	9.8	A	11.9	B	No
NB		8.8	A	9.8	A	
SB		8.6	A	9.9	A	
EB		10.3	B	12.2	B	
WB		9.7	A	12.7	B	
3. Washington Rd / Blue Diamond Access	Signal	4.3	A	1.1	A	N/A

Source: KD Anderson & Associates, Inc., 2013.

Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project will normally have significant adverse impacts associated with traffic/transportation if it would:

- a) *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.*
- b) *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.*
- c) *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.*
- d) *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).*
- e) *Result in inadequate emergency access.*
- f) *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.*

g) *Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).*

Other Thresholds

As a matter of policy, Stanislaus County strives to maintain LOS C or better on all roadways. When measuring Levels of Service (LOS), Stanislaus County uses the criteria established in the Highway Capacity Manual published and updated by the Transportation Research Board.

The City of Turlock's WISP provides objectives in Chapter 5, Section 5.1.2, for LOS which includes:

Objective 1-Strive to maintain a minimum LOS Standard C on all roadway segments in the Plan Area; and

Objective 2-Strive to maintain a minimum LOS D in the PM Peak Hour on all intersections in the Plan Area.

These thresholds would apply directly to significance criteria thresholds a) and b) as related to the LOS. Inadvertently, they would apply to the other significant criteria thresholds c) through g).

3.13.4 IMPACTS AND MITIGATION MEASURES

Impact #3.13-1 – Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

Impact #3.13-2 – Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Project Trip Generation

The proposed project will construct an 180,000 square foot warehouse to be used to store, package, and ship produce to distribution centers in Los Angeles, northern California, Oregon and Washington. The Institute of Transportation Engineers (ITE) publishes trip generation rates for a variety of land uses including warehouses.

The ITE Trip Generation, 9th Edition was used to evaluate the project site. Table 3.13-4 displays the daily, a.m. peak hour, and p.m. peak hour trip generation for the proposed project. Trip generation for the 180,000 square foot warehouse was calculated following the guidelines for estimating trip generation in Chapter 3 of the Trip Generation Handbook, 2nd Edition. This

included the use of fitted curve equations for daily and p.m. peak hour traffic. The a.m. rate was based upon the average rate as insufficient data is available to develop a fitted curve equation. Using these figures the project site would generate 817 daily trips with 114 a.m. peak hour trips and 87 p.m. peak hour trips.

**Table 3.13-4
Project Trip Generation**

Land Use	Amount	Trip Rate			Trips			
		Daily	A.M. Peak Hour	P.M. Peak Hour	Daily	A.M. Peak Hour	P.M. Peak Hour	
Warehouse (LU 150)	180 ksf	4.54*	0.63†	0.48‡	817	114	87	
			A.M. Peak Hour	P.M. Peak Hour		A.M. Peak Hour	P.M. Peak Hour	
			In	Out		In	Out	
Warehouse (LU 150)			0.7	0.21	90	24	22	
			9					
			Net New Trips		817	90	24	22
						65		

Source: KD Anderson & Associates, Inc., 2013.

Notes: ksf – thousand square feet; * - rate based on fitted curve equation - $\ln(T) = 0.86\ln(X)+2.24$; † - rate based on fitted curve equation - $\ln(T) = 0.55\ln(X)+1.88$; and ‡ - rate based on fitted curve equation - $\ln(T) = 0.64\ln(X)+1.14$

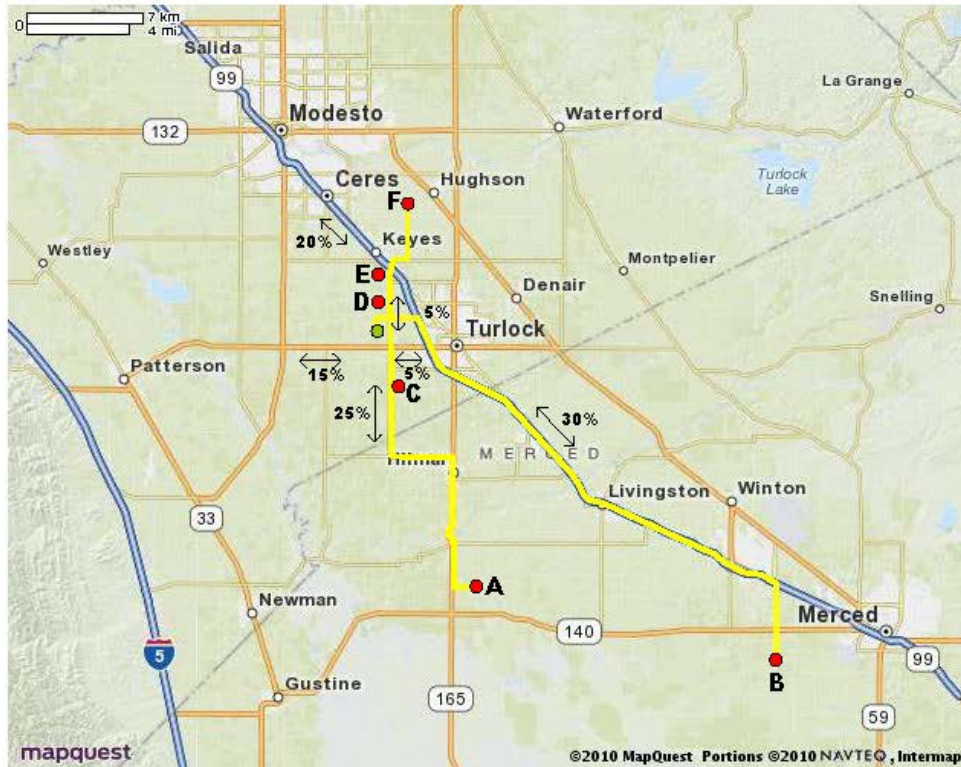
Trip Distribution and Trip Assignment

The location of the growing fields, the projected shipping directions and employee trips were all considered in developing the distribution. Figure 3.13-2 provides locations of each of the growing fields providing crops to the warehouse. The majority of the acreage is located south of the warehouse. Inbound crop delivery truck access is projected to occur along SR 99 and Washington Road. The remaining growing fields are located to the north with access provided along Washington Road. A majority of the growing fields are located near Stevinson with the shortest route along Washington Road. Outbound product distribution traffic is expected to use either SR 99 or I-5. About 50% of the product is projected to be shipped to Los Angeles with the remaining 50% split to distribution centers in Sacramento, the Bay Area, Oregon and Washington. Employee trips are expected to be spread north, south, east and west. While the site's trip distribution could change in the future based on a change in product storage and shipping there is nothing currently more valid that the trip distribution based on the applicant's projected use. Table 3.13-5 presents the projected trip distribution.

**Table 3.13-5
Project Trip Distribution**

Route	% Distribution
North to / from Grayson via Washington Road	5%
North to / from SR 99	20%
South to / from SR 99	30%
South to / from Stevinson via Washington Road	25%
East to / from Turlock via Main Street and Fulkerth Road	5%
West to / from Patterson	15%
Total	100%

Source: KD Anderson & Associates, Inc., 2013.



Legend

- Project Site
 - Fields
 - Projected Crop Truck Routes
 - \leftrightarrow Overall Trip Distribution (includes inbound crop trucks, outbound product trucks and employees)
- A) 600 acres
 B) 190 acres
 C) 135 acres
 D) 40 acres
 E) 20 acres
 F) 30 acres

KD Anderson & Associates, Inc.
 Transportation Engineers
 0620-01 LT Rev. 10/11/2013

FIELD LOCATIONS AND TRIP DISTRIBUTION

figure 4



LOCATION OF GROWING FIELDS

Figure 3.13-2

Existing Plus Project Traffic Volumes and Levels of Services

Figure 3.13-3 presents the “Existing Plus Project” traffic with the project completed. LOS under these conditions are presented in Table 3.13-6. All intersections will continue to operate at LOS that are within the minimum standards adopted by the City of Turlock. The Washington Road/Main Street intersection will also meet the peak hour signal warrant using total volume criteria. This indicates that the traffic volumes may begin to experience short term delays during peak periods. Since the intersection operates at an overall LOS B condition, no mitigations are required to improve the intersection.

**Table 3.13-6
Existing Plus Project Peak Hour Intersection Levels of Service**

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour		A.M. + Project Peak Hour		P.M. + Project Peak Hour		Meets Peak Hour Signal Warrants
		Average Delay (Seconds)	LOS	Average Delay (Seconds)	LOS	Average Delay (Seconds)	LOS	Average Delay (Seconds)	LOS	
1. Washington Rd / Fulkerth Rd	All-Way Stop	8.4	A	9.2	A	8.5	A	9.3	A	No
Overall		8.1	A	9.0	A	8.2	A	9.2	A	
NB		8.1	A	8.9	A	8.2	A	9.0	A	
SB		8.7	A	9.4	A	8.8	A	9.5	A	
EB		8.4	A	9.3	A	8.7	A	9.5	A	
WB										
2. Washington Rd / Main St	All-Way Stop	9.8	A	11.9	B	10.2	B	12.6	B	Yes*
Overall		8.8	A	9.8	A	9.3	A	10.2	B	
NB		8.6	A	9.9	A	9.1	A	11.1	B	
SB		10.3	B	12.2	B	10.7	B	12.8	B	
EB		9.7	A	12.7	B	10.3	B	13.7	B	
WB										
3. Washington Rd / Blue Diamond Access	Signal	12.7	B	1.1	A	32.5	C	11.1	B	N/A

Source: KD Anderson & Associates, Inc., 2013.

Note: * meets peak hour warrant for p.m. plus project condition.

Existing Plus Project Roadway Segment Levels of Service

The LOS for the Washington Road study segment between Main Street and Fulkerth Road is projected to operate at LOS B or better condition with the project, as shown in Table 8 of the Traffic Study.

Existing Plus Approved Projects

Both Stanislaus County and Turlock planning departments were contacted to identify any projects in the vicinity that could add background traffic to the roadway system. There were none

identified in the County, but the City of Turlock's staff identified four in the vicinity to potentially have an effect on the study roadways and intersections. These included:

1. West Main Street Shopping Center;
2. Mi Pueblo;
3. Blue Diamond Growers; and
4. Dust Bowl.

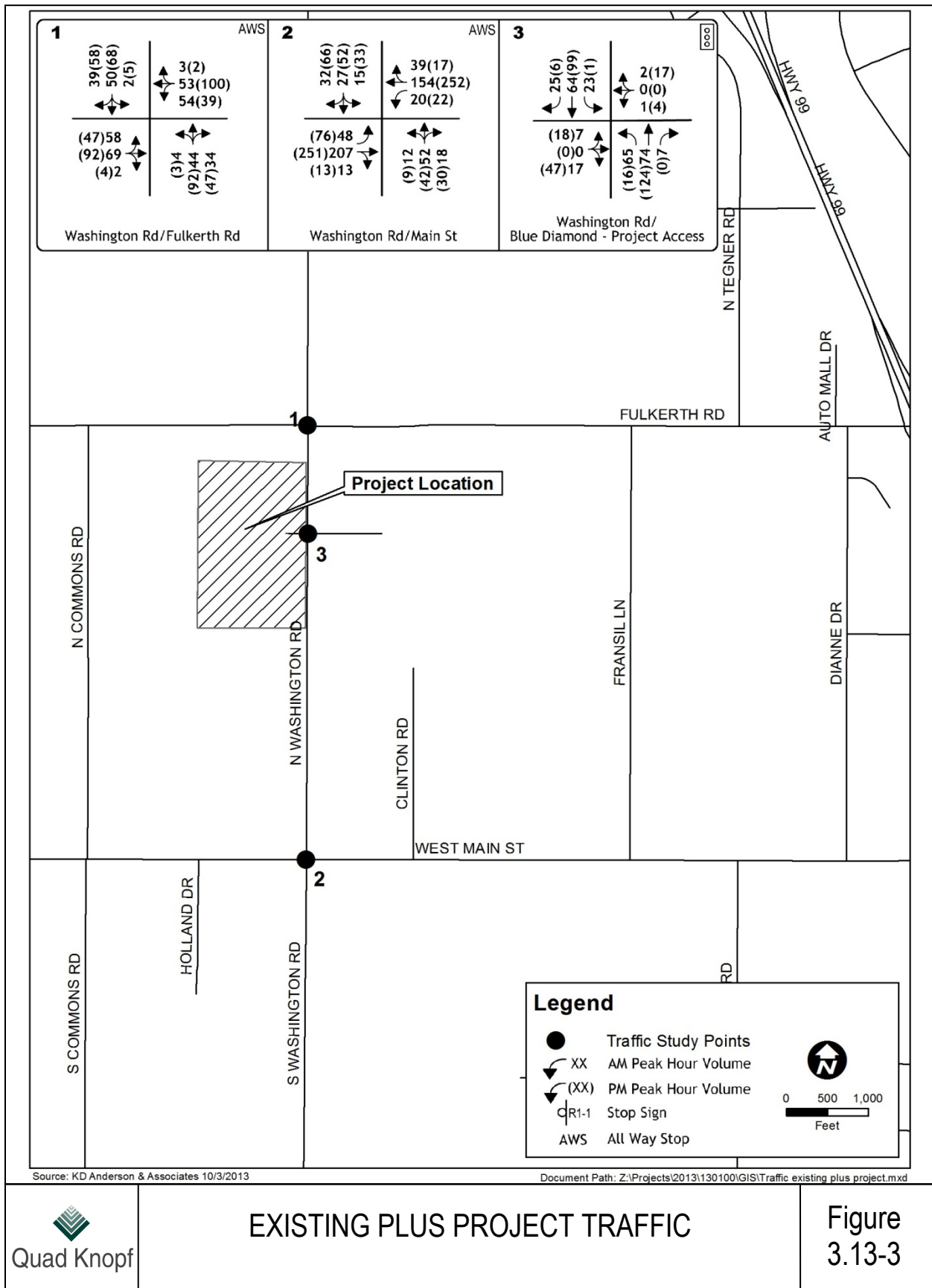
These projects were added to existing traffic volumes to arrive at an Existing Plus Approved Projects (EPAP) baseline. Additional projects in the city limits are identified in Chapter Five of this Draft EIR.

Approved / Foreseeable Projects Descriptions

1. Kilroy West Main Commercial Shopping Center: This project is located in the southeast corner of the West Main Street/Kilroy Avenue intersection in west Turlock. The project includes 75,200 sf of retail uses and 17,500 square feet of restaurant use.
2. Mi Pueblo: This project is located in the southwest quadrant of the West Main Street / South Soderquist Avenue intersection. The project includes tenant improvements to provide 75,300 square feet of retail use and 28,500 square feet of office use.
3. Blue Diamond Growers: This project is located along the east side of Washington Road south of Fulkerth Road. The project is a food processing facility and will total 451,637 square feet when completed over three phases. This project is directly east of the Washington Road Warehouse. The first phase of the project opened in June, however, the EPAP condition assumes full buildout of the facility.
4. Dust Bowl: The Dust Bowl is a foreseeable local brewery with approximately 50,000 square feet of brewing and warehousing space, with an approximately 5,000 square feet tap room. The project is located in the southwest corner of Fulkerth Road and Dianne Road.

EPAP Lane Configurations: Lane configurations at the study intersections are projected to remain as they currently exist. No changes in roadway configurations are identified in the near term by either Stanislaus County or the City of Turlock.

EPAP Roadway Segment Levels of Service: Table 3.13-7 summarizes the LOS under 2015 conditions for the Washington Road study segment. The segment will continue to operate at an LOS B or better condition.



**Table 3.13-7
EPAP Average Daily Traffic Roadway Segment Levels of Service**

Roadway	Location		Class	Lanes	Standard		EPAP Conditions		EPAP + Project Conditions	
	From	To			LOS	Daily Volume Threshold	LOS	Daily Volume	LOS	Daily Volume
Washington Road	Main Street	Fulkerth Road	Arterial	2	C/D	9,200 / 15,000	B/A	4,116	B/A	4,702

Source: KD Anderson & Associates, Inc., 2013.

EPAP Intersection Levels of Service: Table 3.13-8 displays the a.m. and p.m. peak hour LOS at each study intersection in the EPAP ‘No Project’ conditions. Each of the three intersections is projected to operate within acceptable LOS thresholds, at LOS C or better.

**Table 3.13-8
AM / PM Peak Hour Intersection Levels of Service EPAP Plus Project Conditions**

Location	Control	EPAP A.M. Peak Hour		EPAP P.M. Peak Hour		EPAP + Project A.M. Peak Hour		EPAP + Project P.M. Peak Hour		Meets Peak Hour Signal Warrants
		Average Delay (Seconds)	LOS	Average Delay (Seconds)	LOS	Average Delay (Seconds)	LOS	Average Delay (Seconds)	LOS	
1. Washington Rd / Fulkerth Rd	All-Way Stop	9.4	A	10.6	B	9.7	A	10.8	B	No
	Overall	8.9	A	10.9	B	9.1	A	11.2	B	
	NB	8.7	A	9.7	A	8.9	A	9.9	A	
	SB	9.3	A	10.4	B	9.5	A	10.5	B	
	EB	10.1	B	11.1	B	10.6	B	11.3	B	
	WB									
2. Washington Rd / Main St	All-Way Stop	11.2	B	16.0	C	12.2	B	18.4	C	Yes*
	Overall	9.5	A	11.2	B	10.3	B	11.9	B	
	NB	9.9	A	14.6	B	10.6	B	17.8	C	
	SB	11.1	B	15.2	C	11.8	B	16.8	C	
	EB	12.0	B	18.8	C	13.6	B	21.9	C	
	WB									
3. Washington Rd / Blue Diamond Access	Signal	7.3	A	3.8	A	14.5	B	23.7	C	N/A

Source: KD Anderson & Associates, Inc., 2013.

Note: * - meets warrant without and with project (p.m. only).

The Washington Road/Main Street intersection will operate at an acceptable LOS, at an overall LOS C condition in the p.m. peak hour. This intersection will also meet the peak hour signal warrant using total volume criteria. This indicates that the traffic volumes may begin to experience short term delays during peak periods. Since the intersection operates at an overall LOS C condition, no recommendations are made to improve the intersection.

EPAP Plus Project Traffic Volumes and Levels of Service

EPAP plus Project Roadway Segment Levels of Service: Table 3.13-9 summarizes the LOS along the Washington Road study segment under the EPAP plus Project condition. The segment will continue to operate within acceptable Level of Service thresholds, operating at an LOS B condition.

EPAP plus Project Intersection Levels of Service: Table 3.13-10 displays the a.m. and p.m. peak hour LOS at each study intersection in this time frame. Each of the three intersections is projected to operate within acceptable LOS thresholds, at LOS C or better.

The Washington Road/Main Street intersection will continue to operate at an acceptable level of service, at an overall LOS C condition in the p.m. peak hour. This intersection will also meet the peak hour signal warrant using total volume criteria. This indicates that the traffic volumes may begin to experience short term delays during peak periods. Since the intersection operates at an overall LOS C condition, no mitigations are required to improve the intersection.

Cumulative Traffic Impacts

The traffic impacts associated with the proposed project have also been evaluated within the context of future traffic conditions occurring in this area of Stanislaus County. Year 2035 daily traffic volume forecasts generated by the City of Turlock regional travel demand forecasting model is the basis for future background traffic conditions as this project is located adjacent to the City limits.

YEAR 2035 FORECASTS

The StanCOG regional traffic model is a macroscopic model considering the county as a whole. While it provides data on trips generated and traveling throughout the County it provides less precision than local models. This project is located at the west end of Turlock, with the City limits along Washington Road. Consequently, since the City of Turlock model is local, the projected forecasts on individual streets are likely to be more accurate than the County's regional model. Travel forecasts along the study roadways were based on Turlock's 2035 General Plan Update (September 2012). The traffic model, part of the circulation element, was updated and is maintained by Omni Means, Ltd.

Development of future year intersection turning movement traffic volumes requires that the turning movements at each intersection "balance". To achieve the balance, inbound traffic volumes must equal the outbound traffic volumes, and the volumes must be distributed among the various left-turn, through, and right-turn movements at each intersection. The "balancing" of future year intersection turning movement traffic volumes was conducted using methods described in the Transportation Research Board's (TRB's) National Cooperative Highway Research Program (NCHRP) Report 255, Highway Traffic Data for Urbanized Area Project Planning and Design. The NCHRP 255 method applies the desired peak hour directional volumes to the intersection turning movement volumes, using an iterative process to balance and adjust the resulting forecasts to match the desired peak hour directional volumes. The traffic

from the Blue Diamond site was manually added to the 2035 forecasts. The traffic model indicates all traffic from this area of the WISP is distributed onto Fulkerth Road, thereby understating traffic volumes along Washington Road.

Road Conditions

By 2035 Washington Road is projected to be widened to a four-lane divided arterial as part of the WISP buildout. In addition, the two study intersections will be widened and signalized. The lane configurations are detailed below:

- Washington Road / Fulkerth Road (signalized)
 - Northbound – 1 Left, 1 Through, 1 Right
 - Southbound – 1 Left, 1 Through, 1 Right
 - Eastbound – 1 Left, 1 Through-Right
 - Westbound – 1 Left, 1 Through-Right

- Washington Road / Main Street (signalized)
 - Northbound – 1 Left, 2 Through, 1 Right
 - Southbound – 1 Left, 2 Through, 1 Right
 - Eastbound – 1 Left, 1 Through, 1 Through-Right
 - Westbound – 1 Left, 1 Through, 1 Through-Right

- Washington Road / Blue Diamond (signalized)
 - Northbound – 1 Left, 2 Through, 1 Right
 - Southbound – 1 Left, 1 Through, 1 Through-Right
 - Eastbound – 1 Left-Through-Right
 - Westbound – 1 Left-Through-Right

Cumulative Intersection Levels of Service Levels of Service: The 2035 intersection LOS are shown in Table 3.13-10. The projected LOS during the a.m. and p.m. peak hours are within the adopted standards at all study locations.

**Table 3.13-9
AM / PM Peak Hour Intersection Levels of Service Cumulative Plus Project Conditions**

Location	Control	Cumulative		Cumulative		Cumulative + Project		Cumulative + Project	
		A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
		Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS
1. Washington Rd / Fulkerth Rd	Signal*	23.3	C	17.4	B	28.4	C	17.9	B
2. Washington Rd / Main St	Signal*	19.3	B	22.1	C	19.9	B	26.0	C
3. Washington Rd / Blue Diamond Access	Signal	6.0	A	3.5	A	11.8	B	12.5	B

Source: Source: KD Anderson & Associates, Inc., 2013.
 Note:* - signalized based on WISP improvements. N/A - not applicable

Cumulative Roadway Segment Levels of Service: Table 3.13-11 summarizes the LOS for the Washington Road study segment. The segment is projected to have a daily volume of 13,235 vehicles. The segment will operate within acceptable LOS thresholds, operating at an LOS B or better condition.

**Table 3.13-10
Cumulative Plus Project Roadway Segment Levels of Service**

Roadway	Location		Class	Lanes	Standard	Cumulative Conditions		Cumulative + Project Conditions		
	From	To				LOS	Daily Volume	LOS	Daily Volume	
Washington Road	Main Street	Fulkerth Road	Arterial	4	C/D	20,100 / 29,000	B/A	13,235	B/A	13,911

Source: Source: KD Anderson & Associates, Inc., 2013.

Cumulative Plus Project Intersection Levels of Service Levels of Service: Trips generated by the proposed project were superimposed onto background year 2035 volumes to create the “2035 Plus Project” conditions. Table 3.13-9 displays the a.m. and p.m. peak hour LOS at each study intersection in this time frame. Each of the three intersections will continue to operate within acceptable LOS thresholds, at LOS C or better.

Cumulative Plus Project Roadway Segment Levels of Service: Table 3.13-10 summarizes the LOS for the Washington Road study segment. The segment is projected to have daily volumes of 13,911 vpd. This segment will continue to operate at an LOS B or better condition.

Access and Circulation

While the preceding analysis is a reasonable indicator of the project’s relative impacts to the study area street system under the typical CEQA parameters, it is important to consider the adequacy of site access and internal circulation within the context of peak period conditions.

QUEUING

A queuing analysis was conducted at each of the intersections. A 95% confidence level was assumed, meaning that the forecast queue length should be exceeded only 5% of the time. Standard queuing theory was used at signalized and side street stop controlled intersections to calculate the number of vehicles that would be queued.

There is no adopted methodology to determine queues at all-way stop intersections; however, *Tian and Kyte* have modeled several methodologies to analyze queue length models for all-way stop controlled intersections (AWSC). Based on field data comparisons to analysis results they have concluded that the two-way stop controlled methodology identified in the Highway Capacity Manual can be applied to AWSC intersections to estimate vehicle queues.

A significant portion of the traffic into and out of the project site will be trucks, and the queue lengths cited are based on the number of vehicles. Table 3.13-11 shows the projected queues under the Existing, EPAP and Cumulative scenarios. Under Existing condition queues are generally two vehicles or less in both a.m. and p.m. peak hours at the Washington Road/Fulkerth Road intersection.

**Table 3.13-11
Projected Queues (Vehicles)**

Location	Existing		EPAP		Cumulative*	
	No Project	Plus Project	No Project	Plus Project	No Project	Plus Project
1. Washington Rd / Fulkerth Rd						
NB	1 / 2	1 / 2	2 / 3	2 / 2	1 / 1	1 / 1
SB	1 / 2	1 / 2	1 / 2	1 / 2	<1 / <1	<1 / <1
EB	2 / 2	2 / 2	2 / 2	2 / 3	2 / 1	2 / 1
WB	1 / 2	2 / 2	2 / 3	3 / 3	8 / 6	9 / 7
2. Washington Rd / Main St						
NB	1 / 1	1 / 1	1 / 1	1 / 2	2 / 1	2 / 1
SB	1 / 2	1 / 2	2 / 2	2 / 3	2 / 5	3 / 6
EB	3 / 4	3 / 4	3 / 3	4 / 6	3 / 6	3 / 7
WB	2 / 4	3 / 4	4 / 4	4 / 5	3 / 3	3 / 3
3. Washington Rd / Blue Diamond / Project Access						
NB Left	N/A	2 / <1	N/A	2 / 1	N/A	2 / <1
SB Left	<1 / <1	<1 / <1	4 / 2	3 / 2	3 / 2	3 / 1
EB	N/A	<1 / <1	N/A	<1 / <1	N/A	<1 / <1
WB	<1 / <1	<1 / <1	2 / 4	<1 / 3	2 / 5	<1 / 3

Source: Source: KD Anderson & Associates, Inc., 2013.

Note: AM / PM, * - number of vehicles queued in left turn lane; if no left turn lane is present, queue is in through lane, and N/A – not applicable

At the Washington Road/Main Street intersection the queues are up to four vehicles on the east and west approaches and two or less on the north and south approaches. At the Washington Road/Blue Diamond intersection the queues are less than a vehicle for the southbound left turn lane and the westbound leg.

In the Existing plus Project scenario queues will lengthen by up to an additional vehicle along some approaches. The longest queue at the Washington Road/Fulkerth Road intersection will remain two vehicles while at the Washington Road/Main Street intersection the eastbound and westbound approaches will continue to have four queued vehicles. Queues at the Washington Road / Blue Diamond intersection will change as the project leg is added to the west. Two vehicles are projected to queue in the northbound left turn lane. The remaining turn lanes and approaches will have a single queued vehicle.

The EPAP scenario is projected to have queues similar to the Existing No Project condition. Queues are projected to increase by up to a single vehicle along various approaches. The projected worst queues will occur along the westbound approach of the Washington Road/Main Street intersection during both peak hours as four vehicles are projected and along the northbound and westbound approaches of the Washington Road/Fulkerth Road intersection where three vehicles will queue.

In the EPAP plus Project scenario queues will lengthen at the Washington Road/Main Street intersection where the eastbound queue is projected to lengthen to six vehicles in the p.m. peak hour; the westbound approach will lengthen to five vehicles. Queues at the Washington Road/Fulkerth Road intersection will remain at up to three vehicles. The queues at the Washington Road/Blue Diamond intersection appear to decline. This is due to a fourth leg added to the intersection and the re-optimization of the traffic signal timing. The longest queue will be three vehicles in the southbound left lane and along the westbound approach.

In the Cumulative No Project scenario the queues in the westbound left turn lane at the Washington Road/Fulkerth Road intersection are projected to lengthen to 8 vehicles in the a.m. peak hour. At the Washington Road/ Main Street intersection the queue will lengthen in the eastbound left turn lane to six vehicles in the p.m. peak hour. At the Washington Road/Blue Diamond access intersection the queue is projected to lengthen to five vehicles along the westbound approach in the p.m. peak hour. The southbound left turn lane queue will be 3 vehicles.

In the Cumulative plus Project scenario the queues will lengthen at the Washington Road/Fulkerth Road intersection to nine vehicles in the westbound left turn lane. At the Washington Road/Main Street intersection the queue will lengthen to seven vehicles in the eastbound approach and to six vehicles along the southbound approach. At the Washington Road/Blue Diamond intersection the queues in the westbound approach will decrease from five to three vehicles. This due to the fourth leg added to the intersection and the re-optimization of the traffic signal timing. Two vehicles will be queued in the northbound left lane while three vehicles will continue to be queued in the southbound left lane.

Existing Plus Project Specific Impacts

The addition of the proposed project will contribute to the traffic volumes along Washington Road. All intersections and road segments will continue to operate above the LOS thresholds. The following mitigation measures are identified under this planning horizon. This impact is ***potentially significant***

Mitigation Measure #3.13-1a: The project shall pay the Traffic Impact Fees as set forth by Stanislaus County.

Mitigation Measure #3.13-1b: The applicant shall pay the City of Turlock Capital Facility Development Fees which provides for the construction of Public Facilities and to purchase capital items to allow for City services. The City's fees change quarterly, therefore the amount will be determined with approval of the project.

Mitigation Measure #3.13-1c: The applicant shall install half street improvements along the project frontage to meet the future lane configurations along Washington Road. This will also include addition of a northbound left turn lane at the Washington Road/Blue Diamond/Project Access intersection. These improvements shall also include traffic signal modifications to the existing signal. A residential driveway should also be constructed on Washington Road to

provide access for the single family residence that will remain. This residence is located about 350 feet south of the Blue Diamond/project driveway.

Effectiveness of Mitigation: With incorporation of these mitigation measures, the proposed project would comply with both Stanislaus County requirements for traffic impact fees and the City of Turlock's capital facility development fees. Improvements along Washington Avenue would reduce congestion and improve safety for passenger vehicles, transit operators, and pedestrian and bicycle circulation. With incorporation of mitigation, the impact is *less than significant*.

Impact #3.13-3 – Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

As mentioned in Section 3.8 of this EIR, the Turlock Airpark is located approximately 4.8 miles northwest of the proposed project site. The proposed project would not result in an increase in population that could result in an increase in traffic levels. The project site is designated by the Stanislaus County Code as A- 2-40 (General Agriculture). Pursuant to the code, Title 21, Chapter 21.52, Section 21.52.040 A. 1. The maximum height of all buildings and advertising signs is thirty-five feet. The proposed warehouse would have a shed roof with a maximum height of approximately 32 feet at the ridgeline. Therefore, the project will not result in a change in air traffic patterns due to tall structures or buildings.

Conclusion: There is *no impact*.

Mitigation Measures: No mitigation measures are necessary.

Impact #3.13-4 – Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses

The site will be accessed from a single driveway onto North Washington Road which will be aligned with the existing traffic signaled driveway to the Blue Diamond facility. Additional traffic signalization improvements will be installed to accommodate access to and from the site onto North Washington Road. The applicant will also provide dedication and street improvements along North Washington Road as required by the Turlock WISP. Improvements would include curb, gutter, street re-striping, and road widening to accommodate acceleration and deceleration lanes onto North Washington Road. On site vehicular circulation and parking will be reconfigured to accommodate North Washington Road street dedication and improvements.

All intersection and road improvements will have to comply with the City of Turlock's design standards.

The proposed project will result in 52 shipping truck trips per day, 6 days per week, 52 weeks per year. The proposed project will use trucks to transport produce to and the site. Farm equipment will be used on public streets in very limited instances in order to move produce grown on the site to the warehouse for processing.

Conclusion: This impact is *less than significant*.

Mitigation Measure: No mitigation measures are required.

Impact #3.13-5 – Result in inadequate emergency access.

The proposed project has the potential to result in inadequate emergency access while road improvements are being constructed along North Washington Road.

Conclusion: This impact is *potentially significant*.

Mitigation Measure #3.13-5: Proposed project site plans shall be reviewed by the City fire and police departments to ensure adequate emergency access.

Effectiveness of Mitigation: Implementation of Mitigation Measure #3.13-5 will reduce the impact to a *less than significant* level.

Impact #3.13-6 – Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Impact# 3.13-7 – Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Alternative Transportation Modes

Stanislaus Regional Transit (StaRT): provides both fixed route service, shuttles and “roundabout” service that combines features of fixed route and dial a ride services. Route 45E operates between Veterans Memorial Park in Patterson and Central Park in Turlock east of SR 99. Route 45E includes a stop at the Washington Road/Fulkerth Road intersection. This route operates between 6:20 a.m. and 8:05 p.m. weekdays and 6:25 a.m. to 7:10 p.m. on Saturdays. During the midweek there are three a.m. and four p.m. trips while on Saturday there are two a.m. and three p.m. trips.

DART: Most alternative transportation in the Turlock/Denair area are provided by the City of Turlock. The City’s has two services, BLAST and DART. The BLAST is the City’s fixed route transit system; however, none of the four routes extend west beyond Walnut Road. DART provides dial-a-ride services for people over 65 and those with disabilities. Service on DART for all other passengers is limited to only those trips going or coming from outside the BLAST service area and to elementary students going to or from school.

Pedestrian / Bicycle Circulation

Facilities that are dedicated to pedestrians and bicycles are limited in the rural areas of Stanislaus County outside of developed urban areas. This is the case in the vicinity of the Washington Road Warehouse site. Washington Road is a rural roadway without sidewalk or bike facilities along

the roadway. Bicyclists currently ride with motor vehicular traffic along Washington Road while pedestrians can walk along the shoulder.

Although existing facilities are limited, bicycle lanes are being installed on major streets as development occurs. Figure 5-3 of the Turlock 2035 General Plan Update indicates that Class II bike lanes are to be developed along Fulkerth Road west of Dianne Drive to Washington Road; bike lanes currently exist east of Dianne Drive. Bike lanes will also be provided along Washington Road, extending north and south of the study area and on West Main Street, from Washington Road east past SR 99.

Mitigation Measure #3.13-1c requires the applicant to install half street improvements along the project frontage to meet the future lane configurations along Washington Road in accordance with the requirements of the WISP. This would help to relieve some of the safety issues related to the lack of bicycle trails and sidewalks in the area.

Conclusion: Transit systems would not be affected by the proposed project as they do not extend to the vicinity of the site. Improvements will be made along North Washington Road as required by Mitigation Measure #3.13-1c in accordance with the City of Turlock's WISP. As proposed the project will increase safety for both pedestrians and bicyclists, and help to meet the City's WISP goals and policies for road improvements along north Washington Road. With incorporation of Mitigation Measure #3.13-1c, the impact is *less than significant*.

Mitigation Measures: See Mitigation Measure #3.13-1c.

Effectiveness of Mitigation: Implementation of Mitigation Measure #3.13-1c will reduce the impact to a *less than significant* level.

CHAPTER FOUR
EVALUATION OF ALTERNATIVES

CHAPTER FOUR – EVALUATION OF ALTERNATIVES

4.1 Introduction

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) include a discussion of reasonable project alternatives that would "feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives" (CEQA Guidelines Section 15126.6). This chapter identifies potential alternatives to the proposed project and evaluates them, as required by CEQA.

Key provisions of the CEQA Guidelines on alternatives (Section 15126.6[a] through [f]) are summarized below to explain the foundation and legal requirements for the alternatives analysis in the EIR.

- "The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly" (15126.6[b]).
- "The specific alternative of 'no project' shall also be evaluated along with its impact"(15126.6[e][1]).
- "The no project analysis shall discuss the existing conditions at the time the Notice of Preparation (NOP) is published, and at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives" (15126.6[e][2]).
- "The range of alternatives required in an EIR is governed by a 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project" (15126.6[f]).
- "Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)" (5126.6[f][1]).
- "For alternative locations, "only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR" (15126.6[f][2][A]).

- "An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative" (15126.6[f][3]).

For each development alternative, this analysis:

- Describes the alternative;
- Analyzes the impact of the alternative as compared to the proposed project;
- Identifies the impacts of the project that would be avoided or lessened by the alternative;
- Assesses whether the alternative would meet most of the basic project objects; and
- Evaluates the comparative merits of the alternative and the project.

Per the CEQA Guidelines Section 15126.6(d), additional significant effects of the alternatives are discussed in less detail than the significant effects of the project as proposed.

4.2 Project Objectives

Project objectives are identified as a means of aiding the Lead Agency in choosing an environmentally superior alternative to the proposed project. One the key factors in the consideration of alternatives is whether they can attain most of the project objectives. As described in Section 2.2, the objectives of the proposed project are to:

- Positively contribute to the local economy by creating new job opportunities for local residents.
- Promote increased economic growth and economic development that is consistent with the policies of the Stanislaus County General Plan.
- Combine all aspects of the operation - including growing, storage, packing, and shipping – at one location.
- Attain financial success by selecting a facility location that has reasonable land prices, site development costs, and operating costs.
- Minimize travel distance to Highway 99.
- Develop a packing, storage, and shipping facility located in an area served by adequate roads.
- Achieve an architectural and site design that are compatible with the surrounding agricultural areas.
- Provide a development that will result in a net fiscal benefit to the County by generating increased property tax revenue.

4.3 Significant Impacts of the Project

A primary consideration in selecting project alternatives is their potential to reduce or eliminate significant impacts compared to the proposed project beyond that which can be accomplished through mitigation measures. The project impact analysis, as detailed in Chapter Two of this Draft EIR, concluded that the following impacts would remain significant, after mitigation, for the proposed project:

Air Quality

Impact 3.3-1 – Conflict with or obstruct implementation of any applicable air quality plan.

Impact 3.3-3 – Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable national or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).

Greenhouse Gases

Impact 3.7-1 – Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Impact 3.7-2 – Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG.

Noise

Impact 3.11-1 – Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

4.4 Rationale for Alternatives Selection

As discussed above, CEQA provides that alternatives should:

1. Feasibly accomplish most of the basic objectives of the project; and
2. Avoid or substantially lessen one or more of the significant effects.

All alternatives selected for alternatives analysis met at least some of the project objectives and possessed some possibility of reduction or elimination of project-related significant impacts.

The comparative environmental ranking of the project alternatives is based on the alternative's relative and quantitative (where applicable) ability to reduce these identified significant impacts.

4.5 Alternatives Selected for Analysis

4.5.1 CEQA REQUIREMENTS

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. The key question and first step in the analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (Guidelines Sec. 15126.6(f)(2)).

The following alternatives have been determined to represent a reasonable range of alternatives that have the potential to feasibly or partially attain objectives of the project but avoid or substantially lessen any of the significant effects of the project. These alternatives are analyzed in detail in following sections:

- 1) **No Project** – This assumes that the Use Permit is not granted. Land use would be that which is permitted in this Agricultural zoning district without the use permit. In this case, it would not be conversion of the site to a vacant condition.
- 2) **WISP Alternative Site** – This alternative assumes that the warehouse operation as proposed is moved to a parcel within Turlock’s Westside Industrial Park (WISP). This site is within the Turlock city limits and therefore not under the land use jurisdiction of Stanislaus County.
- 3) **Reduced Greenhouse Gas Emissions** – This alternative requires reductions in certain aspects of the proposed warehouse construction and operation in order to reduce GHG emissions below the threshold of significance.

After alternatives are summarized and compared with the proposed project, the chapter concludes with an analysis of the comparative environmental superiority of the various alternatives, as required by CEQA, and the identification of the environmentally superior alternative. The threshold criteria used in Chapter Three (Appendix G of the CEQA Guidelines) are used in this section to judge the significance of, and compare, the impact conclusions related to each criteria for the project for each alternative.

4.5.2 ANALYSIS GUIDELINES

CEQA, unlike NEPA, does not require alternatives analysis at the same detailed level as the analysis of the project; the analysis is simply required to "include sufficient information about each alternative to allow meaningful evaluation, analysis and comparison with the proposed project". [CEQA Guidelines 15126.6(d)] It is, further, required to provide decision-makers and the public with sufficient information to make decision makers' reasoning accessible to the public and for decision-makers to make an informed decision.

The Guidelines require that not only the significant environmental effects of each alternative be identified for comparison with those of the project but that any additional significant effects of each alternative be ascertained and discussed.

4.6 Impact Analysis

4.6.1 NO PROJECT ALTERNATIVE

CEQA Guidelines Section 15126.6(e) requires every EIR to include a “No Project Alternative.” “The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.” In general, this alternative should discuss “existing conditions...as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.”

The manner in which a No Project Alternative shall be composed depends on the nature of the project at issue. The No Project Alternative for this project is the land use that would likely result if the use permit application is denied, thereby allowing only the land uses and activities that are consistent with the A-2-40 General Agriculture zone. This definition is based on CEQA Guidelines Section 15126.6(e), which defines the No Project Alternative. Relevant excerpts follow (in italics, with emphasis added in bold).

*(2) The “no project” analysis shall discuss the existing conditions at the time the notice of preparation is published, ... **as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans ...***

*(3) (B) If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the “no project” alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental efforts of the property remaining in the existing state against environmental effects which would occur if the project is approved... However, where failure to proceed with the project will not result in preservation of existing conditions, **the analysis should identify the practical result of the project’s non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment.***

*(3)(C) ... the lead agency should proceed to analyze the impact of the no project alternative **by projecting what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.***

In conclusion, CEQA does not direct that the “no project” condition be a return to previous conditions, but rather that it describe what is reasonably expected to occur if the proposed project is not approved. In this case, the project proponent has indicated that he would implement those uses and activities that are permitted in the A-2-40 General Agriculture zone.

Under this alternative, the existing site improvements and structures would remain and the current activities on the site would remain, in compliance with County regulations. Following are the key elements of the No Project Alternative:

1. Necessary permits will have been obtained for work that has been done at the site.
2. No warehouse would be constructed, so no sorting, storage, packing and shipping of produce would take place.
3. New buildings and building additions that were installed without a County building permit will have received permits and remains, as follows:
 - Office in the single family dwelling
 - Agricultural barn addition
 - New steel building roof
 - Milk barn
4. Site improvements that were completed without County permits will have received permits and remain, as follows:
 - Erosion control plan will have been implemented to the satisfaction of Stanislaus County.
 - Dust control plan will have been implemented to the satisfaction of San Joaquin Valley APCD.
 - Fulkerth Road driveway will have been removed and ground restored to previous condition.
 - Washington Road driveway will have received a permit and remains in place.

Aesthetics

Under this alternative, the existing buildings would be retained, after securing required permits from the County, but the 180,000 square foot warehouse would not be constructed. In addition, the proposed fencing and landscape screening described in Section 3.1 would not be installed along Washington Road. Therefore, the existing structures and equipment would remain in full view of motorists. There would be a ***greater*** aesthetics impact under the No Project alternative.

Agricultural Resources

Under this alternative, with the absence of the proposed 180,000 warehouse, the amount of land devoted to agricultural use would be greater than under the proposed project. Therefore, the potential impact to agricultural resources would be ***less*** under the No Project Alternative.

Air Quality

This alternative would result in less emissions associated with building construction, because no new buildings would be constructed. Similarly, vehicle-related emissions would be reduced because there would be no produce shipping conducted at the site. Overall, impacts on air quality would be ***less*** under this alternative.

Biological Resources

Under this alternative, the project site and any related biological resources would remain in their existing conditions, and potential impacts to special-status species listed as occurring in its general vicinity would be less under the No Project alternative because there would be a reduction in the developed area relative to the proposed project, and the activity level at the site would be less. Therefore, this alternative would have *less* potential impacts to biological resources.

Cultural Resources

Under this alternative, site disturbance would be reduced relative to that in the proposed project. As a result, potential impacts to cultural resources would be *less*.

Geology and Soils

Grading and excavation of the site would not occur under the No Project Alternative, except to comply with County permit requirements for grading that was completed in advance of required permits. Moreover, no additional structures would be constructed and no additional employees would be added. Geologic impacts, therefore, would be *less* in comparison to the proposed project.

Greenhouse Gases

Under the No Project Alternative, the 180,000 square foot warehouse would not be constructed and associated truck deliveries would not occur. Consequently, this alternative would eliminate the significant unavoidable GHG impacts associated with the proposed project and would not generate as much mobile or stationary sources of GHG emissions. Overall, this alternative would have *less* construction and operational GHG emissions.

Hazards and Hazardous Materials

In comparison to the proposed project, the No Project Alternative would not have the potential to create greater hazardous materials impacts than those associated with the proposed project because County regulations would pertain in either case. As such impacts associated with hazards and hazardous materials would be the *same* as the No Project Alternative.

Hydrology/Water Quality

In this alternative, the amount of impervious surface on the site would be less than that of the proposed project. However, features contained in the proposed project description that are intended to improve water quality and improve onsite detention of stormwater would not be constructed under the No Project Alternative. Therefore, the No Project Alternative would likely have *greater* potential impacts to hydrology and water quality than the proposed project

Land Use and Planning

Under the No Project Alternative, land uses and activities currently occurring on the site would be made to conform to the A-2-40 General Agriculture zone, and the warehouse and uses that are not permitted in that zone would not occur. Since the proposed project would also be consistent with County land use regulations, the potential impacts would be the *same*.

Noise

Because the No Project Alternative would eliminate construction activities, it would eliminate significant short-term construction noise impacts at nearby vibration-sensitive and noise-sensitive receptors. Similarly, long-term project traffic related noise impacts to residential dwellings adjacent to major access roads to the site would be reduced because the shipping activities associated with the warehouse under the proposed project would not exist. Under the No Project Alternative, vehicle trips or stationary noise would be similar to the existing condition, and would result in *less* vehicle noise impact on residential uses than the proposed project.

Public Services and Utilities

While impacts under the proposed project were less than significant, demand for services under No Project Alternative would be less. Accordingly, potential impact would be *less* than the proposed project.

Transportation and Traffic

Under this No Project alternative, there would be no additional traffic trips except those generated from continuing farming operations on the project site. This alternative would result in *less* traffic impacts associated with shipping, as well as employee traffic associated with warehouse employees.

Impact Summary

The No Project Alternative results in 9 less impacts than the proposed project, 2 greater impacts, and 2 impacts that are the same as the proposed project.

Ability to Achieve Project Objectives

The No Project Alternative would achieve one project objective listed in Section 4.1.2, which pertains to compatible architectural and site design with the surrounding agricultural uses. However, it would not achieve any of the other objectives.

4.6.2 WISP SITE ALTERNATIVE

Under this alternative, the project proponent would develop the proposed project on roughly 27-acre parcel within Turlock's Westside Industrial Specific Plan (WISP). A survey of vacant sites provided by the City indicates that there are currently multiple vacant sites that would be

available for development. Development of a site within the WISP would be limited to the sorting, storage, packing and shipping of produce within a new 180,000 square foot warehouse. No crops would be produced on the site.

Aesthetics

Under this alternative, the architectural and site design of the proposed 180,000 square foot warehouse would be subject to design guidelines contained in the WISP; whereas, the proposed project is only subject to WISP design guidelines for Washington Road frontage improvements. There are no similar County design guidelines that would apply. However, since, within mitigation, there were no aesthetic impacts resulting from the proposed project, there are no impacts that would be reduced under the WISP Site alternative. Therefore, the aesthetic impacts are the *same*.

Agricultural Resources

While there were no identified potential impacts on agricultural resources under the proposed project, developing the project within the WISP will reduce the amount of agricultural land developed for the warehouse, thereby increasing the amount of land available for continued growing of crops. The potential impact will therefore be *less* under this alternative.

Air Quality

Under this alternative, air quality impacts are expected to be approximately the same as those of the proposed project. While a site in the WISP would be nominally closer to SR 99, the reduced travel distance would not be expected to measurably reduce vehicle emissions. Potential impacts on air quality associated with the WISP Site Alternative, therefore, is expected to be approximately the *same* as that of the proposed project.

Biological Resources

While potential impacts to biological resources were mitigated to less than significant under the proposed project, the potential impacts to biological resources will likely be even less at a site within the WISP, since it is in an area with a higher level of activity and fewer biological resources. The potential biological resources impact is *less* than that of the proposed project.

Cultural Resources

Potential impacts to cultural resources at the proposed project site are limited to heretofore potential resources that could be encountered during site grading and construction. Those same potential impacts would apply to the WISP site; therefore, potential impacts to cultural resources are the *same* for the WISP Site Alternative.

Geology and Soils

The site development and earth disturbance that would occur at the project site for the proposed warehouse would occur at the WISP site; therefore, potential impacts to geology and soils would be the *same* under the WISP Site Alternative.

Greenhouse Gases

With the same project site size and the same levels of development, the impacts of this alternative on greenhouse gases and global climate change will be essentially the *same*.

Hazards and Hazardous Materials

While any hazardous materials that may be used in the warehouse would be the same at WISP site, there would be no existing materials or substances, as there are at the proposed project site. Since the WISP site is assumed to be free of the on-site hazardous substances (e.g., spilled materials) found at the proposed project site, development of the WISP site can be expected to have *less* potential impacts associated with hazards and hazardous materials.

Hydrology/Water Quality

Storm water runoff and water quality impacts, while mitigated to less-than-significant levels under the proposed project, are expected to be the *same* at a site within the WISP.

Land Use and Planning

Under this alternative the project would be developed in full conformity with City of Turlock zoning requirements, including requirements that are specific to the WISP. Potential impacts would be the *same* as those of the proposed project.

Noise

Under this alternative the project would be developed in full conformity with City of Turlock zoning requirements, including any noise mitigation requirements that are specific to operations within the WISP. While the number of vehicle trips that create noise impacts on nearby sensitive uses would be the same under this alternative, the access point to the site would probably not be on Washington Road, thereby potentially reducing traffic noise on the segment of Washington Road where residents would be impacted by truck traffic noise under the proposed project. Accordingly, the potential noise impact would likely be *less* under the WISP Site Alternative.

Public Services and Utilities

As noted in Chapter Two Project Description, the project does not propose connection to water, sanitary sewer, and storm drainage systems. Under this alternative, no additional demand would be generated for area utilities and service systems, even though by being with the WISP, connection to utility systems would be easier to accomplish. Since the project would not require

connect to City utility systems, the impact of the WISP Site alternative would be the *same* as the proposed project.

Transportation and Traffic

Under the WISP Site Alternative, trips to and from the project site would likely use many of the same County and City streets as the proposed project, although Washington Road would likely not be used for site access. Accordingly, traffic impacts are expected to be essentially the *same* as those associated with the proposed project.

Impact Summary

The WISP Site Alternative results in 4 less impacts and 9 impacts that are the same as the proposed project.

Ability to Achieve Project Objectives

The WISP Site Alternative achieves all but three of the project objectives listed in Section 4.4.2, as follows: 1) It would not combine growing, storage, packing, and shipping at one location, because growing would not occur in the WISP, 2) The financial success of the project at this site would be challenged by higher land acquisition and site development costs associated with the WISP, and 3) The project would not generate property taxes for the County.

4.6.3 REDUCED GREENHOUSE GAS ALTERNATIVE

The Reduced Greenhouse Gas (GHG) alternative would apply mitigation measures to meet the 29% reduction target set in AB 32, as recommended by the San Joaquin Valley Air Pollution Control District (SJVAPCD) to reduce impacts on climate change. This alternative would also result in further reducing both the construction and operational criteria pollutants to well below the SJVAPCD's thresholds of significance (10 tons per year for NO_x and ROG and 15 tons per year for PM₁₀ and PM_{2.5}).

This alternative would result in the following mitigation measures for construction: reduce speeds to 15 mph on unpaved surfaces, water unpaved areas 3 times per day, apply soil stabilizer for unpaved roads (also see Regulation VIII requirements), and utilize Tier 3 construction equipment. Construction assumptions would consist of: 3 construction phases lasting 4 months each (total 12 months), 31 pieces of construction equipment for each phase, and a 26.73-acre disturbance area.

Under this alternative, mitigation measures during operations would include the following: installing renewable energy (55%), high efficiency lighting, exceed Title 24 by 25%, reclaim 8.1% of indoor water use, planting 80 trees, employee offered vanpool/shutter, VOC paint and cleaning supplies, 3% plug in for electric landscaping equipment, and recycle 50% of solid waste. Operation assumptions would include the following: total trips per day equals 466.2 miles (10% hauling, 70% employees, and 20% consumers), 6 work days, workers and vendors

originate from Turlock, haul trips average 375 miles per day (both long haul and short haul), and total yearly water use of 690,805 gallons.

In Table 4.6-1, the Business As Usual (BAU) listed in column two is the baseline year of 2005 which does not include regulation. Column three lists the 2020 results that occur with regulation that is in place. The last column lists the 2020 regulation along with the mitigation measures applied from the discussion.

**Table 4.6-1
Total GHG Operation Emissions**

Source	Business as Usual (BAU) MTCO ₂ e	2020 (with Regulation) MTCO ₂ e	2020 (with Regulation and Standard Measures) MTCO ₂ e
Total	4687.28	4271.57	3305.82
Reduction		9.7%	29.5%
Significance Threshold		29.0%	29.0%
Are emissions significant after mitigation, project design features, and regulation?		Yes	No

Note: Results also based on CalEEMod defaults.
Source: Avila & Sons, 2013.

The results listed in 4.6-1 would result in meeting the SJVAPCD's suggested 29% target reduction set in AB 32.

Reduction in construction and operation criteria pollutants are listed in Table 4.6-2. Pursuant to Rule 9510, if ROG or PM10 is over 2 tons per year, then Rule 9510 is triggered.

**Table 4.6-2
Total Construction and Operation Criteria Pollutant Emissions**

Combined Emissions (2014, 2015, and 2016)	ROG	NOx	CO	PM10 Total	PM2.5 Total
Construction tons/yr					
Total	1.7859	4.6803	3.072	0.4017	0.3201
Operation tons/yr					
Total	5.6364	5.8656	14.5101	2.0694	0.6183

Note: Results also based on CalEEMod defaults.
Source: Avila & Sons, 2013.

As shown in Table 4.6-2, the total construction emissions combined are well under the SJVAPCD's thresholds for criteria pollutants (10 tons per year for NOx and ROG and 15 tons per year for PM10 and PM2.5). When the construction results are divided by three to coincide with each of the three construction phases, each phase also falls below Rule 9510 thresholds for triggering an Indirect Source Review (ISR). However, the operation phases combined would require the ISR.

It is uncertain at this time whether the Reduced Greenhouse Gas (GHG) Emissions alternative is more cost effective than the Proposed Project alternative, as the cost of mitigation is unknown (especially the 55% renewable energy). However, the cost for mitigating under the ISR is \$9,350 per ton for NOx, and \$9,011 per ton for PM10.

Aesthetics

It is unlikely that the project appearance would change noticeably different under this alternative as a result of incorporating one of more of the measures described above for reducing greenhouse gas emissions. Although, if additional trees were planted under this alternative, as described in the listing, there could be an improved appearance on the site. Therefore, the potential impact on aesthetics would *less* than that of the proposed project.

Agricultural Resources

It is unlikely that any of the greenhouse gas reduction measures described above would result in an impact on agricultural resources that is different than that of the proposed project. Therefore, this alternative can be expected to have the *same* impact on agricultural resources as the proposed project.

Air Quality

It is expected that incorporation of one or more of the greenhouse gas reduction measures described above would result in a reduction on air quality impacts. Accordingly, this alternative is *less* potential impact on air quality than the proposed project.

Biological Resources

It is unlikely that any of the greenhouse gas reduction measures described above would result in an impact on biological resources that is different than that of the proposed project. Therefore, this alternative can be expected to have the *same* impact on biological resources as the proposed project.

Cultural Resources

It is unlikely that any of the greenhouse gas reduction measures described above would result in an impact on cultural resources that is different than that of the proposed project. Therefore, this alternative can be expected to have the *same* impact on cultural resources as the proposed project.

Geology and Soils

It is unlikely that any of the greenhouse gas reduction measures described above would result in an impact on agricultural resources that is different than that of the proposed project. Therefore, this alternative can be expected to have the *same* impact on geology and soils as the proposed project.

Greenhouse Gases

This alternative is specifically intended to reduce GHG emissions by requiring implementation of a menu of GHG reduction methods in various aspects of the site and architectural design and in the daily operations of the proposed project. Accordingly, this alternative will result in *less* GHG emission impacts than the proposed project. Specifically, incorporation of the listed measures will reduce GHG emissions to below the thresholds described in Section 3.7 of this Draft EIR.

Hazards and Hazardous Materials

It is unlikely that any of the greenhouse gas reduction measures described above would result in any effect on impacts associated with hazards or hazardous materials that is different than that of the proposed project. Therefore, this alternative can be expected to have the *same* impact on hazards and hazardous materials as the proposed project.

Hydrology/Water Quality

It is unlikely that any of the greenhouse gas reduction measures described above would result in an impact on hydrology and water quality that is different than that of the proposed project. Therefore, this alternative can be expected to have the *same* impact on hydrology and water quality as the proposed project.

Land Use and Planning

Incorporation of the greenhouse gas reduction measures described above would not result in an impact on land use and planning that is different than that of the proposed project. Therefore, this alternative can be expected to have the *same* impact on land use and planning as the proposed project.

Noise

It is unlikely that any of the greenhouse gas reduction measures described above would result in a different operational noise impact than that of the proposed project. Also, the greenhouse gas reduction measures would not reduce vehicle traffic noise impacts. Therefore, this alternative can be expected to have the *same* impact on noise as the proposed project.

Public Services and Utilities

It is unlikely that impacts on public services and utilities would be any different as a result of the of the greenhouse gas reduction measures described above than that of the proposed project. Therefore, this alternative can be expected to have the *same* impact on public services and utilities as the proposed project.

Transportation and Traffic

Incorporation of the greenhouse gas reduction measures described above will not affect the volume, trip distribution, or mix of vehicles associated with operation of the project. As such potential traffic impacts under the Reduced GHG alternative would be the *same* as that for the proposed project.

Impact Summary

The Reduced GHG Alternative results in 3 less impacts and 10 impacts that are the same as the proposed project.

Ability to Achieve Project Objectives

The Reduced GHG Alternative would achieve all of the project objectives listed in Section 4.2, with the possible exception of achieving financial success. This is due to the higher cost of development and operation that may result from implementing GHG reduction measures.

4.7 Environmentally Superior Alternative

CEQA requires a lead agency to identify the "environmentally superior alternative" and, in cases where the "No Project" Alternative is environmentally superior to the proposed project, the environmentally superior development alternative must be identified. The relative impacts of each project alternative in comparison to the proposed project are summarized in Table 4.7-1.

**Table 4.7-1
Proposed Project vs. Project Alternatives
Comparison of Environmental Impacts and Achievement of Project Objectives**

Environmental Impact	Project Alternatives			
	Proposed Project	No Project Alternative	WISP Site Alternative	Reduced GHG Alternative
Aesthetics	LTS	Greater	Same	Less
Agricultural Resources	LTS	Less	Less	Same
Air Quality	SU	Less	Same	Less
Biological Resources	LTS	Less	Less	Same
Cultural Resources	LTS	Less	Same	Same
Geology and Soils	LTS	Less	Same	Same
Greenhouse Gases	SU	Less	Same	Less
Hazards and Hazardous Materials	LTS	Same	Less	Same
Hydrology/Water Quality	LTS	Greater	Same	Same
Land Use/Planning	LTS	Same	Same	Same

Environmental Impact	Project Alternatives			
	Proposed Project	No Project Alternative	WISP Site Alternative	Reduced GHG Alternative
Noise	SU	Less	Less	Same
Public Services/Utilities	LTS	Less	Same	Same
Transportation/Traffic	LTS	Less	Same	Same
Achievement of Objectives		1	5	7

LS Less than Significant
 SU Significant and Unavoidable

The Table 4.7-1 summarizes the potential impacts of the alternatives analysis as follows:

- **No Project Alternative** – Results in 9 less impacts than the proposed project, 2 greater impacts, and 2 impacts that are the same as the proposed project.
- **WISP Site Alternative** – Results in 4 less impacts and 9 impacts that are the same as the proposed project.
- **Reduced GHG Alternative** – Results in 3 less impacts and 10 impacts that are the same as the proposed project.

Among the three alternatives, the No Project Alternative results in the greatest reduction in impacts, and could be considered superior from an environmental standpoint. However, it also results in 2 impacts that are greater than that of the proposed project. The Reduced GHG Alternative has impacts that are most similar to the Proposed Project and results in the fewest reductions in impacts. In conclusion, other than the No Project Alternative, the WISP Site Alternative is marginally superior in terms of environmental impact.

With regard to achievement of the 8 project objectives listed in Section 4-2, Table 4.7-1 shows that the No Project Alternatives meets only 1 of 8, the WISP Site Alternative meets 5 of 8, and the Reduced GHG Alternative meets 7 of 8.

CHAPTER FIVE
CUMULATIVE IMPACTS

CHAPTER FIVE – CUMULATIVE IMPACTS

5.1 Introduction

As required by the CEQA Guidelines this Draft EIR provides an analysis of the cumulative impacts of the proposed project when combined with the potential environmental effects of past, present, and reasonable foreseeable future projects. The goals of this analysis are to determine whether the overall long-term impact of all identified projects would be cumulatively significant and to determine whether the proposed project would cause a cumulatively considerable, and thereby significant, incremental contribution to any identified cumulatively significant impacts. (See CEQA Guidelines Sections 15064(h), 15065(c), 15130(a), 15130(b), and 15355(b), as well as *Communities for a Better Environment v. California Resources Agency* (2002, 103 Cal.App.4th 98, 120)).

According to the CEQA Guidelines (Section 15355), cumulative impacts are defined as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts”. A cumulative impact would occur from “the change in the environment which results from the increased impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time”. (CEQA Guidelines Section 15355(b)).

Consistent with Section 15130(a) of the CEQA Guidelines, the discussion of cumulative impact in this Draft EIR focuses on significant and potentially significant cumulative impacts. Section 15130(b) of the CEQA Guidelines states:

The discussion of cumulative impact shall reflect the severity of the impact and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of the other projects which do not contribute to the cumulative impact.

The CEQA Guidelines identify two basic methods for establishing the cumulative environment in which the proposed project is to be considered: 1) the use of a list of projects and 2) the use of adopted projections for a general plan, certified EIR, or other adopted planning document. A combination of these two approaches may also be used in order to most accurately characterize the projects that may contribute to the cumulative impact of the proposed project. For this analysis, the list method has been employed.

5.2 List of Related Projects

The City of Turlock has maintained a list of past, present and probable future projects producing cumulative impacts affecting the City and its immediate environs. A similar project list was not available from Stanislaus County.

The list of past, present, and probable projects used for this cumulative analysis is restricted to projects in Turlock, in the vicinity of the proposed project. For the purposes of this discussion, the projects that may have a cumulative effect on resources in the project vicinity are referred to as related projects.

The analysis of cumulative environmental impacts associated with the proposed project addresses the potential incremental impact of the proposed project in combination with these related projects. Brief descriptions of the related projects are provided in Table 5.2-1 below and the locations of these projects are shown in Figure 5.2-1

**Table 5.2-1
Summary of Related Projects in Turlock**

Project Name and Location	Acres	Dwelling Units	Square Feet (Comm/Indust)	Status
Avena Bella – 500 Linwood Ave.	6.7	141		80 units expected to be occupied by 10/21/13. Schedule for construction of remainder approx 3-5 years out.
Monte Vista Crossings South – 2701 Countryside Dr.	19		153,785	Olive Garden Restaurant (7,685 sq ft.) is operational. Schedule for remainder is uncertain.
Cottage Park - near N. Golden State Blvd. and W. Tuolumne Rd.		82		28 of the 82 lots have been sold and constructed.
PrimeShine Car Wash – 980 W. Monte Vista Ave.	1.13		4,699	In plan check process for building permit.
Park Villas - N. Golden State Blvd at Atherstone Rd.	10	140	36,500	20,000 sq. ft. of commercial space built but not occupied. No dwellings yet.
Sutter Gould Medical Building – 3100 W. Christoffersen Pkwy.	-		38,000	Under construction.
Blue Diamond – 1300 N. Washington Rd.	-		451,637	Phase 1 expected to be operational in 2013.
Yosemite Farm Credit – 900 W. Monte Vista Ave.			17,000 + 4,000	Under construction.
10 Pin Fun Center – 1010 W. Monte Vista Ave.			51,826	Not constructed.
Mi Pueblo – 1300 W. Main St.			37,000	Status uncertain.
Lander Crossings – 1851 Lander Ave.			Retail + 85-unit hotel	Active; status uncertain
West Main Shopping Center – 2218 and 2300 W. Main St.			100,000	Entitlement extended to March 2014; no building permit applications submitted.
Enterprise Park – 1100 W. Glenwood Ave.			12-lot industrial	Tentative map extended to March 2016.
Northeast Turlock Master Plan – Northeast quadrant of Turlock	255	728	83,635	Subdivisions in various stages of construction.

Project Name and Location	Acres	Dwelling Units	Square Feet (Comm/Indust)	Status
East Tuolumne Master Plan - Northeast quadrant of Turlock	100	3,000 potential		Tentative map extended to 2016.
Morgan Ranch - Southwest quadrant of Turlock		2,055	120,000	Master plan being prepared.
Dust Bowl – Fulkerth Rd. at Dianne Rd.			55,000	Potential brewery and warehouse.
Countryside Housing Project – Countryside Dr. at W. Tuolumne Rd.	15	105 potential		Potential residential development with a small commercial parcel.
Totals		6,251	1,153,182	

Source: City of Turlock, 2013

As shown in Table 5.2-1, over 1.1 million square feet of industrial and retail commercial development and over 6,000 dwelling units are expected to be constructed in Turlock, based on currently available data.

5.3 Cumulative Impacts Analysis

5.3.1 AESTHETICS

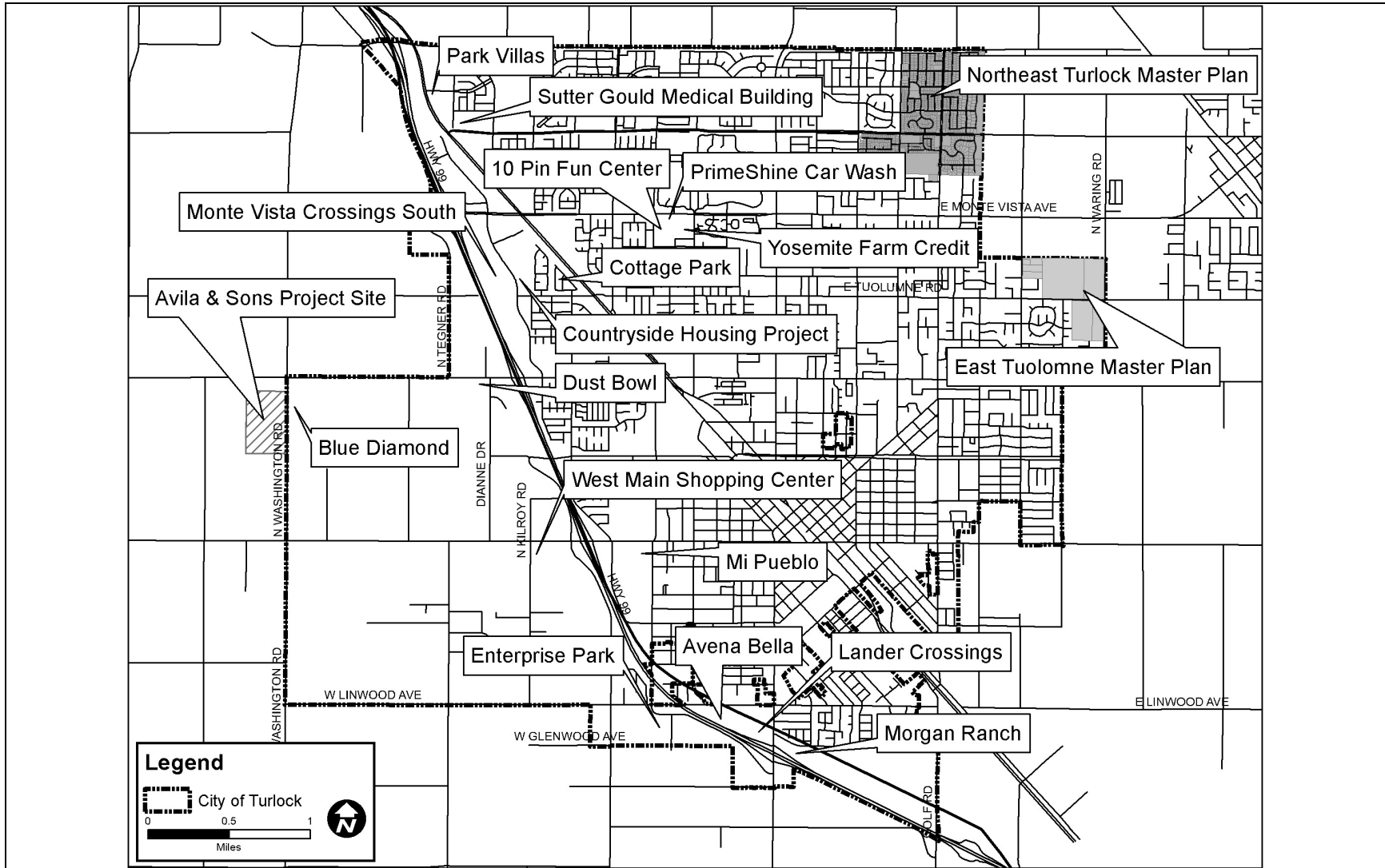
As seen in Table 5.1-1 (Chapter Five) a total of 18 proposed or accepted projects are expected to be constructed in the city of Turlock, which, with its immediate environs, is the area of geographical visual analysis for cumulative impacts.

When combined with proposed or accepted projects in Turlock, the project stands out as the only agricultural development on agricultural land. While the project includes improved street-side landscaping and the construction of a warehouse that could be aesthetically pleasing to many, these changes introduce a new source of light and glare that contribute to cumulative impacts in the area. However, with implementation of mitigation measures, these potentially significant impacts would be reduced to less than significant. Given the project’s incremental contribution to cumulative impacts on aesthetics and visual resources the cumulative impact is *less than cumulatively considerable*.


5.3.2 AGRICULTURAL RESOURCES

The proposed project is considered an agricultural use under the County’s General Plan, as well as under the Williamson Act, and therefore, activities associated with the project would not result in the conversion of agricultural lands to a non-agricultural use.

The farmland map shown in Figure 3.2-1 in Chapter 3 identifies the project site and all surrounding land as “Farmland” by the State, with the majority of the sites designated as “Prime” farmland, and a smaller percentage designated “Farmland of Statewide Importance” or “Unique Farmland.” This figure does not reflect recent changes to land use, including lands to the east



Document Path: Z:\Projects\2013\130100\GIS\Cumulative Projects.mxd

 <p>Quad Knopf</p>	<p>CUMULATIVE PROJECTS AVILA & SONS WASHINGTON ROAD WAREHOUSE</p>	<p>Figure 5.2 - 1</p>
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which are within the City of Turlock. This area is within the City's Westside Industrial Specific Plan (WISP), and includes the Blue Diamond Almond processing facility directly east of the Project. Under the terms of the WISP, "agricultural activity will be allowed to continue on lands designated for urban use, until urban development is imminent." The City has incorporated mitigation measures in the WISP to ensure that farmland is not prematurely converted to other uses; however, lands within the WISP will eventually be developed, primarily for industrial purposes.

Inasmuch as the proposed project is a compatible use within the agricultural land use designation and will not result in the loss of agricultural land, the cumulative impact is *less than cumulatively considerable*.

5.3.3 AIR QUALITY

The air quality analysis determined that air quality impacts associated with vehicle trips would be significant and unavoidable and that no feasible mitigation measures could be applied to the proposed project to reduce the impact to a less-than-significant level. As mentioned before, the SJVAB is in non-compliance with federal and State standards for ozone and PM10. It was concluded that the project will obstruct implementation of the SJVAPCD's plans, as well as violate both federal and State standards for ozone and PM10, and result in a cumulatively considerable net increase of pollutants. In connection with the air quality effects of past projects, other current projects, and probable future projects in Stanislaus County, the project contribution to air quality impacts is considered *cumulatively considerable*.

5.3.4 BIOLOGICAL RESOURCES

This analysis of cumulative effects on biological resources considered other development projects within Turlock. Development projects result in land use changes that are typically associated with effects including, but not limited to, habitat loss, ground disturbance, and noise. These effects can negatively impact sensitive biological resources.

All of the projects listed in Table 5.1-1 that are proposed within Turlock collectively encompass approximately 468.53 acres. The proposed project is the only agricultural project identified. It represents approximately 13% of the proposed development area within the city.

No special-status wildlife species were observed on the project site during a reconnaissance-level survey, and none are likely to be present due to the intensive agricultural production that currently characterizes the project site and the surrounding lands. Although some special-status species could potentially occur on the project site as transients, direct and indirect project impacts would be precluded by implementing standard avoidance and minimization measures. Given the low quality habitat that exists on the project site, the project will not result in a significant loss of habitat. Approximately 27 acres of impervious surfaces will be created, but the majority of the site will remain in agricultural production.

Proposed developments represent approximately 4% of Turlock's 10,834 acres. Of these proposed developments, the proposed project represents approximately 0.57% of the city. When

combined with impacts from other past, present and reasonably foreseeable future development projects within the city, the loss and/or fragmentation of plant and wildlife habitat is *cumulatively considerable*.

5.3.5 CULTURAL RESOURCES

The proposed project would include grading and other short-term and long-term activities. Agricultural related ground disturbances have historically occurred at the proposed project site and are occurring presently. As a result, it is unlikely that cultural resources would be discovered aboveground. However, anything buried under the ground could be discovered during earthmoving activities. Due to the non-renewable nature and numerous locations of cultural resources, any loss would be considered a cumulative impact. To reduce such a loss, a standard migration measure has been incorporated into the proposed project. As a result, the project would not have a *less than cumulatively considerable* impact on cultural resources.

5.3.6 GEOLOGY AND SOILS

Cumulative impacts related to geology and soils would be site specific. All proposed structures will be constructed in accordance with building code requirements. The effect of this project is not of a nature to cause impacts on geologic or soils resources beyond the project site. Cumulative impacts could occur in a seismic event if a potential hazard, such as a power plant or a dam, were located near a populated area and failed as a result of ground shaking. However, no such facilities exist or are planned within the development area where the proposed project activities are located. As a result, the project would not have a *less than cumulatively considerable* impact on geology and soils.

5.3.7 GREENHOUSE GASES

The greenhouse gas analysis in this EIR determined that project-related trips from the project would result in significant and unavoidable impacts associated with greenhouse gas emissions and that no feasible mitigation measures could be applied to the proposed project to reduce the impact to a less-than-significant level. As mentioned in the greenhouse gas analysis, the proposed project would not meet the State's 29% target reduction for GHG emissions by 2020. An individual project cannot generate enough greenhouse gas emissions to significantly influence global climate change. Consequently, any project contributes to this potential impact through its incremental contribution, combined with cumulative contributions of greenhouse gases from other projects. Therefore, as proposed, the project would result in a cumulatively considerable net increase of pollutants. In connection with the air quality effects of past projects, other current projects, and probable future projects in Stanislaus County, the project would have a *cumulatively considerable* impact on greenhouse gas emissions.

5.3.8 HAZARDS AND HAZARDOUS MATERIALS

Most risks associated with hazardous materials are often site-specific with the exception of routinely transporting hazardous materials (in combination with other projects, if a spill was to occur, impacts could be cumulative). Both fuel and fertilizers will be transported to and stored at

the proposed project site. However, because these materials will be stored onsite there would be fewer trips occurring. When trips do occur, drivers would have to comply with applicable federal, State, and local regulations. Disposal of hazardous materials in landfills could also be considered a cumulative impact. However, would also have to comply with federal, State, and local regulations ensures that certain steps be followed for disposal. Therefore, impacts related to hazards and hazardous materials of the proposed project, in conjunction with other development in Stanislaus County or city of Turlock, would be *less than cumulatively considerable*.

5.3.9 HYDROLOGY/WATER QUALITY

Cumulative impacts would occur if the proposed project resulted in polluting or depleting the Turlock Subbasin or other waterways. An enzyme biological agent would likely be added to the wash water before it is discharged to the ponding basin onsite, where it would be allowed to dissipate through evaporation and percolation, or it would be recycled and used for irrigation of crops on the project site. A septic leach field system would be used to dispose of wastewater from employee sinks and toilets. There would be no cumulative impacts related to water quality or discharge.

Water would be obtained from two on-site wells which produce a combined total of 825 gallons *per minute*. The 2008 Turlock Groundwater Management Plan notes that water shortage in the subbasin remains unclear and recommends that jurisdictions continue monitoring. However, the plan also notes that irrigation is critical for recharge of the subbasin. The proposed project would recycle some of the wash water for irrigation. Impacts on local hydrology and water quality would be *less than cumulatively considerable*.

5.3.10 LAND USE AND PLANNING

If the proposed project included construction that would physically divide one area of the community from another, than fragmentation could occur and cumulative impacts could result. For example, if a 4-lane highway was constructed between a residential area and a shopping center and people could no longer walk, then an increase in vehicles (air pollution) would occur. As proposed, the project will not be erecting or constructing a physical barrier that would result in separating any type of use.

If the proposed project conflicted with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding environmental impacts, then a cumulative effect could occur. However, as shown in the land use and planning analysis in this EIR the project is consistent with both the City of Turlock's WISP and the Stanislaus County General Plan's goals and policies. As a result Impacts on land use and planning would be *less than cumulatively considerable*.

5.3.11 NOISE

Future development within Stanislaus County and neighboring counties, including the proposed project, would incrementally affect the future (cumulative) ambient noise environment. While it is difficult to project exactly how the ambient noise conditions within the area would change, it

is known that traffic noise levels would increase slightly due to cumulative development within the region, both with and without the proposed project. The noise analysis section of this EIR identified projected traffic noise levels at a reference distance of 100 feet from the various roadway centerlines for cumulative plus project conditions and the increases associated with those levels over cumulative conditions without the proposed project.

The noise analysis determined that there are no feasible mitigation measures for reducing noise generated by project traffic on a sensitive receptor to a less-than-significant level. Due to the cost of engineering feasibility, right-of-way acquisition, safety, and other considerations, the construction of noise barriers at off-site locations would be infeasible to mitigate this impact to a level of insignificance. Similarly, because traffic speeds cannot arbitrarily be lowered to reduce traffic noise without adversely affecting safety, lowering speed limits to reduce off-site noise levels is also considered infeasible. In addition, relocating either the roadways or residences to create greater setbacks is also considered infeasible. Therefore, the project will result in a *cumulatively considerable* contribution to noise impacts in the area.

5.3.12 PUBLIC SERVICES AND UTILITIES

Fire, police, and emergency services for the project site would be provided by Stanislaus County, and the project proponent would be responsible for paying impact fees to the County to offset the cost of facilities needed because of the increase in services to the Project site. However, because the fees cover only the future construction of additional facilities, it will also be necessary to consult with fire and police agencies to reduce hazards and provide access to the property in case of emergencies. Proposed mitigation measures and standard County requirements would reduce potential impacts on public services and utilities to a less-than-significant level. The cumulative effect of the proposed project and other industrial and commercial operations in the County would be an increase in the need for fire and police protection, and for emergency medical response. However, other projects within the County would be expected to adhere to the same requirements as the proposed project, including payment of impact fees and the implementation of measures to reduce risks of fire, criminal activity, and accidents.

The proposed Project is not expected to induce growth, and will not result in the need for additional housing, schools, libraries, or parks or other recreation areas. The project will have a *less than significant impact* on these services. The cumulative impacts of other projects located in the County, and immediately outside the city limits of Turlock must be considered on an individual basis. Some industrial, agricultural, or commercial businesses may require employees with specific skills or education not widely available in the area. Semi-skilled workers, such as those needed for the proposed produce warehouse and shipping operation, are typically available in the County and nearby City, so that the projects would not induce growth. For these types of operations, the potential impacts to schools, libraries, and parks and other recreational facilities would be *less than cumulatively considerable*.

The proposed project is anticipated to use approximately 2.12 acre feet of water per year for all purposes. This water will be provided by existing, on-site wells. The proposed Project site is zoned by Stanislaus County for agricultural use, and the well was originally established to provide water for irrigating crops on the site and the surrounding sites.

The project is located in the County, and will not require the use of a municipal water or wastewater treatment facility. Wastewater from washing produce will be used for irrigation, and wastewater generated by employees will be treated using an on-site septic system, in accordance with local, State, and federal requirements. Because the proposed Project is situated in an agricultural area, it is unlikely it and other projects in the area would have a cumulative effect on wastewater treatment. The potential impact to municipal water or wastewater treatment facilities or services would be *less than cumulatively considerable*.

The project will result in approximately 34 acres of impervious or otherwise affected lands, including a 13-acre paved parking lot. Storm water collected on site would be conveyed by a combination of surface scales, culverts, and sheet flow to an onsite retention basin. The basin will be designed to comply with State and federal requirements to control storm water, and will not have a negative effect on water or wastewater services. The cumulative effect of the storm water detention basin, in conjunction with similar basins on adjacent properties will have a *less than cumulatively considerable* impact.

5.3.13 TRANSPORTATION AND TRAFFIC

As described in the transportation and traffic section of this EIR, under the 2035 Plus Project scenario during the a.m. and p.m. peak hour, each of the three analyzed intersections will continue to operate within acceptable LOS C or better. According to Table 3.13-10 the Washington Road study segment is projected to have daily volumes of 13,911 vpd, but will continue to have a LOS B or better condition. The traffic analysis determined that all study intersections and road segments will continue to operate within accepted LOS threshold levels. Therefore, no migration measures are necessary. The project contribution to traffic impacts is *less than cumulatively considerable*. Refer to Section 3.13 for additional information regarding cumulative transportation and traffic impacts.

CHAPTER SIX
OTHER CEQA REQUIREMENTS

CHAPTER SIX – OTHER CEQA REQUIREMENTS

6.1 *Significant Unavoidable Environmental Effects*

The CEQA Guidelines, Section 15126.2(b), requires a description of any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described. The project was evaluated with respect to specific resource areas to determine whether implementation would result in significant adverse impacts.

The potentially significant environmental impacts that would result from implementation of the proposed project are summarized in Table ES-1 in the Executive Summary of this Draft EIR. In some cases, impacts that have been identified would be less than significant. In other instances, incorporation of the mitigation measures proposed in this Draft EIR would reduce the impacts to levels that are less than significant. Although the proposed project contains policies and guidelines that mitigate certain impacts, no mitigation measures have been identified to reduce the following impacts to a less-than-significant level. Those impacts that cannot feasibly be mitigated to a less-than-significant level, or for which no mitigation measures are available, would remain as significant unavoidable adverse impacts, as described below.

6.1.1 AIR QUALITY

Impact 3.3-1 – Conflict with or obstruct implementation of any applicable air quality plan.

The proposed project may conflict or obstruct implementation of the applicable AQAP. Impacts would be *potentially significant*. There are no feasible mitigation measures that can be applied to the project to reduce the impact to a less-than-significant level; accordingly, this impact would be *significant and unavoidable*.

Impact 3.3-2 – Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

The project would exceed the SJVAPCD's regional thresholds during construction and operation for NO_x; therefore, this would be considered a potentially significant impact. The project may contribute to a violation of ozone standards and nitrogen dioxide standards; this would be considered a potentially significant impact. There are no feasible mitigation measures that can be applied to the project to reduce the impact to a less-than-significant level; accordingly, this impact would be *significant and unavoidable*.

Impact 3.3-3b – Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable national or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors). There are no feasible mitigation measures that can be applied to the project to reduce the impact to a less-than-significant level; accordingly, this impact would be *significant and unavoidable*.

6.1.2 GREENHOUSE GASES

Impact 3.7-1 – Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Construction emissions would primarily occur prior to 2020, therefore they would be less than significant. Operational emissions would not meet the target thresholds of 29 percent below BAU. Impacts would be *potentially significant*.

Impact 3.7-2 – Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG. The proposed project may obstruct attainment of the goals established under AB 32. The above mitigation measure would not achieve the required reduction of 29 percent below BAU; therefore, the residual significance of this impact is *significant and unavoidable*.

6.1.3 NOISE

Impact 3.11-1 – Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. The proposed project would not expose people to noise levels in excess of standards established in the County's noise ordinance during construction. Noise impacts from construction would be less than significant. However, because the future traffic noise levels along Washington Road between Main Street and the project site would be considered significantly impacted by project-generated traffic, project thresholds of significance at existing residences would be exceeded. A *significant and unavoidable* impact would occur.

6.2 Significant Irreversible Environmental Changes

Section 15126.2(c) of the CEQA Guidelines requires an EIR to address significant irreversible environmental effects, which cannot be avoided if the proposed project is implemented.

Where the decision of the public agency allows the occurrence of significant effects which are identified in the Final EIR but are not at least substantially mitigated, the agency shall state in writing the specific reasons to support its action based on the Final EIR and/or the information in the record (Section 15093(b)). This statement is called a "Statement of Overriding Considerations." This statement will be prepared at the end of the CEQA review process, after the Final EIR for this project has been completed.

Implementation of the proposed project would result in the short-term commitment of nonrenewable and/or slowly renewable energy resources and natural resources including lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metals, and water due to construction activities. As the project site develops, nonresidential development would require further commitment of energy resources in the form of natural gas and electricity. Increased motor vehicular travel as a result of the increased commitment of public services would also be required.

Significant impacts resulting from development of the proposed project, for which complete mitigation is unavailable, infeasible, or outside the jurisdiction of Stanislaus County to

implement, are summarized in Section 6.1, Significant Unavoidable Environmental Impacts, and are described in detail in the appropriate subsections in Chapter Three of this Draft EIR.

6.3 Irreversible Changes to the Environment

Implementation of the proposed project would result in the long-term commitment of resources to serve the proposed project site. The most notable significant irreversible impacts are increased generation of air pollutants and noise from additional vehicular traffic. Implementation of the proposed project will also result in the short-term commitment of non-renewable and/or slowly renewable natural and energy resources such as lumber and other forest products, mineral resources, and water resources during construction activities. These irreversible impacts, which are currently unavoidable consequences of urban development, are described in detail in the appropriate sections of Chapter Three of this Draft EIR.

6.4 Growth-Inducing Impacts

Section 15126.2(d) of the CEQA Guidelines requires a discussion of how the potential growth-inducing impacts of the proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Direct population growth occurs when a project would result in the construction of a substantial amount of new housing or otherwise directly cause a substantial increase in a community's population. Indirect growth inducement occurs when a project would extend infrastructure to undeveloped areas, remove obstacles to population growth, or otherwise encourage activities that cause significant environmental effects. Induced growth is distinguished from the direct employment, population, or housing growth of a project. If a project has characteristics that "may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively," then these aspects of the project must be discussed as well. Induced growth is any growth that exceeds planned growth and results from new development that would not have taken place in the absence of the proposed project. For example, a project could induce growth by lowering or removing barriers to growth or by creating or allowing a use such as an industrial facility that attracts new population or economic activity. CEQA Guidelines also indicate that the topic of growth should not be assumed to be either beneficial or detrimental.

6.4.1 DIRECT AND INDIRECT GROWTH INDUCEMENT

A key consideration in evaluating growth inducement is whether the activity in question constitutes "planned growth". A residential project that is consistent with the underlying General Plan and zoning designations would generally be considered planned growth because it was previously contemplated by these long-range documents, and, thus, would not be deemed to have a significant growth-inducing effect. Likewise, a project that requires a General Plan Amendment and re-zone to develop more intense uses than are currently allowed may be considered to have a substantial growth-inducing effect because such intensity was not contemplated by the applicable long-range documents. It should be noted that these are

hypothetical examples, and conclusions about the potential for growth inducement will vary on a case-by-case basis.

6.4.2 DIRECT POPULATION GROWTH

Project implementation will not have a direct growth inducing impact because the project does not include proposed dwellings.

6.4.3 REMOVAL OF BARRIER TO GROWTH

The proposed project would not result in the extension of urban infrastructure to an area that is currently not serviced because the project does not require or propose connection to urban infrastructure. In particular, potable water and sewer service would not be extended to the project site.

Overall, the proposed project is consistent with the land use designations contained in the Stanislaus County General Plan and will not encourage growth that exceeds population projections. Growth inducement, as it pertains to CEQA and this document, generally denotes growth that is not planned for. Given that the proposed project is in compliance with County growth projections, it will not result in significant direct growth-inducing impacts.

6.5 *Effects Not Found to be Significant*

CEQA Guidelines, Section 15128, states that “an EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR.” During the scoping process for this EIR, it was determined that certain environmental topics cited in the Notice of Preparation (NOP) would not be evaluated in detail; therefore, the Project was analyzed in detail with respect to certain environmental areas described within the Appendix G guidelines and other environmental topics were dismissed from further analysis. To the extent a particular Project feature was not analyzed in detail in any given discussion of an impact area, it is implied that this Project feature did not result in a significant impact.

Results of the comprehensive environmental analysis are presented in Chapter Three of this EIR. Most impacts were found to be either less than significant or below a level of significance after mitigation.

6.6 *Energy Conservation*

Public Resources Code Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted AB 1575, which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct state responses to energy emergencies, and—perhaps most importantly—promote

energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F of the CEQA Guidelines. Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. For the reasons set forth below, this EIR concludes that the proposed project will not result in the wasteful, inefficient, and unnecessary consumption of energy, will not cause the need for additional natural gas or electrical energy-producing facilities, and, therefore, will not create a significant impact on energy resources.

6.6.1 REGULATORY SETTING

Federal and state agencies regulate energy use and consumption through various means and programs. At the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy-related research and development projects, and through funding for transportation infrastructure improvements. At the state level, the California Public Utilities Commission (CPUC) and the CEC are two agencies with authority over different aspects of energy. The CPUC regulates privately owned utilities in the energy, rail, telecommunications, and water fields. The CEC collects and analyzes energy-related data, prepares statewide energy policy recommendations and plans, promotes and funds energy efficiency programs, and adopts and enforces appliance and building energy efficiency standards. California is exempt under federal law from setting state fuel economy standards for new on-road motor vehicles. Some of the more relevant federal and state energy-related laws and plans are discussed below.

Federal Energy Policy and Conservation Act

The Federal Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway Traffic and Safety Administration, which is part of the United States Department of Transportation, is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is not determined for each individual vehicle model; rather, compliance is determined on the basis of each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States. The Corporate Average Fuel Economy (CAFE) program, which is administered by United States Environmental Protection Agency, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The United States Environmental Protection Agency

calculates a CAFE value for each manufacturer, based on city and highway fuel economy test results and vehicle sales. On the basis of the information generated under the CAFE program, the United States Department of Transportation is authorized to assess penalties for noncompliance. In the course of its over 30-year history, this regulatory program has resulted in vastly improved fuel economy throughout the nation's vehicle fleet.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) such as ABAG were required to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values that were to guide transportation decisions in that metropolitan area. The planning process for specific projects would then address these policies. Another requirement was to consider the consistency of transportation planning with federal, State, and local energy goals. Through this requirement, energy consumption was expected to become a decision criterion, along with cost and other values that determine the best transportation solution.

The Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including providing assistance to public agencies and fleet operators, encouraging urban designs that reduce vehicle miles traveled, and accommodating pedestrian and bicycle access.

Title 24, Energy Efficiency Standards

Title 24, which was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption, provides energy efficiency standards for residential and nonresidential buildings. According to the CEC, since the energy efficiency standards went into effect in 1978, it is estimated that California residential and nonresidential consumers have reduced their utility bills by at least \$15.8 billion. The CEC further estimates that by 2011, residential and nonresidential consumers will save an additional \$43 billion in energy costs.

In 2008, the CEC adopted new energy efficiency standards. All projects that apply for a building permit after January 1, 2010 must adhere to the new 2008 standards. A copy of the 2008 Energy Efficiency Standards may be reviewed online at www.energy.ca.gov/title24/2008standards/index/html. The 2008 Energy Efficiency Standards may also be reviewed at the Energy Efficiency Division, California Energy Commission, 1516 Ninth Street, MS-29, Sacramento, CA 95814-5512.

Because the adoption of Title 24 post-dates the adoption of AB 1575, it has generally been the presumption throughout the State that compliance with Title 24 (as well as compliance with the federal and state regulations discussed above) ensures that projects will not result in the inefficient, wasteful, and unnecessary consumption of energy. As is the case with other uniform building codes, Title 24 is designed to provide certainty and uniformity throughout the State while ensuring that the efficient and non-wasteful consumption of energy is carried out through design features. Large infrastructure transportation projects that cannot adhere to Title 24 design-build performance standards may, depending on the circumstances, undertake a more involved assessment of energy conservation measures in accordance with some of the factors set forth in Appendix F of the CEQA Guidelines. As an example, pursuant to the California Department of Transportation CEQA implementation procedures and FHWA Technical Advisory 6640.8A, a detailed energy study is generally only required for large-scale infrastructure projects. However, for the vast majority of residential and nonresidential projects, adherence to Title 24 is deemed necessary to ensure that no significant impacts occur from the inefficient, wasteful, and unnecessary consumption of energy. As a further example, the adoption of federal vehicle fuel standards, which have been continually improved since their original adoption in 1975, have also protected against the inefficient, wasteful, and unnecessary use of energy.

According to the CEC, reducing energy use has been a benefit to all. Building owners save money, Californians have a more secure and healthy economy, the environment is less negatively impacted, and our electrical system can operate in a more stable state. The 2008 Standards (for residential and nonresidential buildings) are expected to reduce the growth in electricity use by 561.2 gigawatt-hours per year (GWh/y) and reduce the growth in natural gas use by 19 million therms per year (therms/y). The savings attributable to new nonresidential buildings are 151.2 GWh/y of electricity savings and 3.3 million therms. Additional savings result from the application of the Standards on building alterations, outdoor lighting, and refrigerated warehouses. In particular, non-residential alteration requirements for cool roofs, insulation, and interior lighting are expected to save about 270.5 GWh/y of electricity. Outdoor

lighting and refrigerated warehouse requirements are expected to save an additional 37.3 GWh/y of electricity. These savings will accumulate as the Standards affect each subsequent year of construction—doubling in two years, tripling in three, etc. Table 6.6-1 provides a summary of the electricity savings envisioned by the 2008 standards.

**Table 6.6-1
Electricity Savings Projected from the 2008 Standards**

Category		2005 Standard (GWh)	2008 Standard (GWh)	Savings (GWh)	Percent Reduction
Newly Constructed Buildings	Nonresidential Heating	33.0	21.0	12.0	37.2
	Nonresidential Cooling	392.0	360.0	32.0	8.3
	Nonresidential Lights	822.0	726.0	96.0	11.7
	Nonresidential Fans	646.0	636.0	10.0	1.5
Alterations	Interior Lighting	NA	NA	186.0	NA
	Cool roofs and Insulations	NA	NA	84.5	NA
Newly Constructed Buildings	Refrigerated Warehouses	NA	NA	15.6	NA
	Outdoor Lighting	NA	NA	21.7	NA
Total		NA	NA	561.2	NA

Source: California Energy Commission, 2007.

Notes: GWh = Gigawatt hours, NA = not applicable, and refrigerated warehouses were previously unregulated

Since the California 2000–2001 electricity crisis, the CEC has placed greater emphasis on demand reductions. Changes in 2001 (following the electricity crisis) reduced electricity demand for newly constructed residential and nonresidential buildings by about 110.3 megawatts (MW) each year. Newly constructed nonresidential buildings account for 44.0 MW of these savings. Like energy savings, demand savings accumulate each year. The 2008 Standards are expected to reduce electric demand by another 131.8 MW each year. Table 6.6-2 provides a summary of the demand savings envisioned by the 2008 standards.

In many parts of the world, the wasteful and poorly managed use of energy has led to oil spills, acid rain, smog, and other forms of environmental pollution that have ruined the natural beauty people seek to enjoy. California is not immune to these problems, but the CEC-adopted appliance standards, building standards, and utility programs that promote efficiency and conservation have gone a long way toward maintaining and improving environmental quality. Other benefits include reduced destruction of natural habitats, which, in turn, helps protect wildlife, plants, and natural systems.

Many experts believe that burning fossil fuel is a major contributor to global warming; carbon dioxide is being added to an atmosphere already containing 25 percent more than it did two centuries ago. Carbon dioxide and other greenhouse gases create an insulating layer around the Earth that leads to global climate change. CEC research shows that most of the sectors of the

State economy face significant risk from climate change, including agriculture, forests, and the natural habitats of a number of indigenous plants and animals.

**Table 6.6-2
Demand Savings Projected from the 2008 Standards**

Category		2005 Standard (MW)	2008 Standard (MW)	Savings (MW)	Percent Reduction
Newly Constructed Buildings	Nonresidential Heating	1.0	1.0	38.2	—
	Nonresidential Cooling	215.0	195.0	9.3	—
	Nonresidential Lights	144.0	120.0	16.4	—
	Nonresidential Fans	136.0	132.0	2.9	—
Alterations	Interior Lighting	NA	NA	45.4	NA
	Cool roofs and Insulations	NA	NA	NA	NA
Newly Constructed Buildings	Refrigerated Warehouses	NA	NA	1.8	NA
	Outdoor Lighting	NA	NA	NA	NA
Total		NA	NA	131.8	NA

Source: California Energy Commission, 2007.

Notes: GWh = Gigawatt hours, NA = not applicable, and refrigerated warehouses were previously unregulated

Scientists recommend that actions be taken to reduce emissions of carbon dioxide and other greenhouse gases. While adding scrubbers to power plants and catalytic converters to cars are steps in the right direction (both of which are currently enforced as part of existing regulatory schemes), the use of energy-efficient standards can be effective actions to limit the carbon dioxide that is emitted into the atmosphere. According to the CEC, using energy efficiently, in accordance with Title 24 Energy Efficiency standards, is a proven, far-reaching strategy that can and does present an important contribution to the significant reduction of greenhouse gases.

Pursuant to the California Building Standards Code and the Title 24 Energy Efficiency Standards, the City will review the design and construction components of the project's Title 24 compliance when specific building plans are submitted.

6.6.2 ENERGY REQUIREMENTS OF THE PROPOSED PROJECT

Short-term construction and long-term operational energy consumption are discussed below.

Short-term Construction

The United States Environmental Protection Agency (EPA) regulates non-road diesel engines. The EPA has no formal fuel economy standards for non-road (e.g., construction) diesel engines but does regulate diesel emissions, which indirectly affects fuel economy. In 1994, EPA adopted the first set of emissions standards (Tier 1) for all new non-road diesel engines greater than 37 kilowatts (50 horsepower). The Tier 1 standards were phased in for different engine sizes

between 1996 and 2000, reducing nitrogen oxide (NOx) emissions from these engines by 30 percent. The EPA has since adopted more stringent emission standards for NOx, hydrocarbons, and particulate matter from new non-road diesel engines. This program includes the first set of standards for non-road diesel engines less than 37 kW. It also phases in more stringent Tier 2 emission standards from 2001 to 2006 for all engine sizes and adds yet more stringent Tier 3 standards for engines between 37 and 560 kW (50 and 750 hp) from 2006 to 2008. These standards will further reduce non-road diesel engine emissions by 60 percent for NOx and 40 percent for particulate matter (PM) from Tier 1 emission levels. In 2004, EPA issued the Clean Air Non-road Diesel Rule. This rule, which took effect in 2008 and will be fully phased in by 2014, will cut emissions from non-road diesel engines by more than 90 percent. These emission standards are intended to promote advanced clean technologies for non-road diesel engines that improve fuel combustion, but they also result in slight decreases in fuel economy.

The proposed project is anticipated to be constructed in three phases with groundbreaking occurring as early as 2013. The first phase of construction will be completed by 2016. Build out is expected to be completed by 2019. However, as mentioned in the Air Quality Report, to provide a “worst-case” scenario, the project’s construction was conservatively estimated to be built out simultaneously within a year following entitlement approvals. It was assumed that the project’s construction would start in June 2013 and be completed by July 2014. Table 6.6-3 provides an estimate of the project construction fuel consumption. The construction assumptions contained in the table are the same assumptions in the construction air quality analysis in Section 3.3 Air Quality.

**Table 6.6-3
Construction Fuel Consumption**

Year	Phase Duration	Construction Phase Assumptions	Total Fuel Consumption	
			Per 8 Hours (gallons)	Total Phase Duration (gallons)
2013	10 days	Site Preparation of 61.7 acres (grubbing and land clearing)		
		Equipment:		
		<ul style="list-style-type: none"> • Rubber Tired Dozers (6) 854.4 • Tractors/Loaders/Backhoes (8) 416 		8,544 4,160
2013	30 days	Site Grading of 61.7 acres		
		Equipment:		
		• Excavators (4) 156.8		4,704
		• Graders (2) 75.2		2,256
		• Rubber Tired Dozers (2) 284.8		8,529
		• Scrapers (4) 531.2		15,936
• Tractors/Loaders/Backhoes (4) 150.8		4,524		
2013/2014	190 days	Construct 180,000 square feet of warehouse facilities		
		Equipment:		
		• Cranes (2) 168		31,350
		• Forklifts (6) 177.6		33,744
• Generator Sets (2) 25.6		4,864		

Year	Phase Duration	Construction Phase Assumptions	Total Fuel Consumption	
			Per 8 Hours (gallons)	Total Phase Duration (gallons)
		<ul style="list-style-type: none"> Tractors/Loaders/Backhoes (6) Welders (2) 	225.6 13.5	42,864 2,565
2014	25 days	Asphalt Paving Equipment: <ul style="list-style-type: none"> Pavers (4) Paving Equipment (4) Rollers (4) Tractors/Loaders/Backhoes (2) 	160 112 144 75.2	4,000 2,800 3,600 1,880
2014	25 days	Paint Buildings Equipment: <ul style="list-style-type: none"> Air Compressors (2) 	N/A	
Total				176,320

Source: CATERPILLAR, 1998; CATERPILLAR, 2013; KOBELCO, 2005; Diesel Service & Supply, 2013.

Note: To account for a worst case scenario, most equipment is Tier 3.

Note: Data for paving equipment and rollers comes from the 1998 edition CATERPILLAR handbook.

Note: Fuel data for forklifts could not be find so was substituted with Telehandler data which is comparable.

Note: Generator fuel usage based on a 20 kW generator.

Note: Based on 300 SSD Welder generator (3.2 Ltr per hour = 0.8454 gallons per hour).

As shown in Table 6.6-4, construction activities associated with the proposed project would be estimated to consume 176,320 gallons of diesel. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of California. Therefore, it is expected that construction fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than at other construction sites in the region.

Long-Term Operations

TRANSPORTATION ENERGY DEMAND

Vehicle fuel efficiency is regulated at the federal level. Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration is responsible for establishing additional vehicle standards and for revising existing standards. As mentioned before, The fuel economy standard for new passenger cars has been 27.5 miles per gallon since 1990. The fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon since 1996. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is not determined for each individual vehicle model; rather, compliance is determined on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Trip generation figures provided in the Traffic Impact Study prepared for the project were used to estimate vehicular fuel consumption associated with trips to and from the proposed project. Table 6.6-4 provides an estimate of the daily fuel consumed by vehicles traveling to and from the

proposed project. These estimates were derived using the same assumptions used in the operational air quality analysis in Section 3.3 of this draft EIR.

**Table 6.6-4
Daily Vehicle Fuel Consumption**

Vehicle Type	Percent of Trips	Number of Daily Trips	Trip Length (miles)	Total Daily Miles	Average Fuel Economy	Total Daily Fuel Consumption (gallons)
Employees (Passenger Vehicles)	54.4	446.1	8	3,568.8	21.6	165.2
Field Trucks (Heavy-Duty Diesel Trucks)	15.6	127.5	16.5	2,103.8	6.1	344.9
Warehouse to Distribution Center Trips Northern Boundary (Heavy-Duty Diesel Trucks)	7.1	58.0	222	12,876	6.1	2,110.8
Warehouse to Distribution Center Trips Southern Boundary (Heavy-Duty Diesel Trucks)	7.1	58.0	60	3,480	6.1	570.5
Material Delivery (Medium –Heavy-Duty Vehicles)	2.0	16.3	8	130.4	6.1	21.4
Local Sales	13.6	111.1	8	888.8	21.6	41.1
Total	100	817	-	23,047.80	-	3,253.9

Source: Quad Knopf, 2013.

Note: Material delivery consists of bins, pallets, cartons.

Note: Data is based on 817 trips as reported in the Traffic Study completed on October 11, 2013, and in the Air Quality Study (Table 4) completed on January 28, 2013.

Note: Employee, material delivery, and local sales are assumed to originate from the City of Turlock (approximately 8 miles round trip).

According to the results listed in the table, the total daily fuel consumption for the project will be 3,253.9 gallons. The proposed project would fuel some of the hauling trucks onsite. Workers would likely fuel up in Turlock before arriving onsite, or at the nearest gas station which is approximately 2.3 miles away. Accordingly, vehicular fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than for any other similar land use in the region.

BUILDING ENERGY DEMAND

The proposed project’s structures would be designed to comply with the County’s Building Code and as previously stated, all projects that apply for a building permit after January 1, 2010 must adhere to the new Title 24 2008 standards.

CHAPTER SEVEN

IMPACTS FOUND TO BE LESS THAN SIGNIFICANT

CHAPTER SEVEN – IMPACTS FOUND TO BE LESS THAN SIGNIFICANT

California Public Resources Code Section 21003(f) states: “...it is the policy of the state that...[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical, and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment.” This policy is reflected in the State California Environmental Quality Act (CEQA) Guidelines (Guidelines) Section 15126.2(a), which states that “[a]n EIR [Environmental Impact Report] shall identify and focus on the significant environmental impacts of the proposed project” and Section 15143, which states that “[t]he EIR shall focus on the significant effects on the environment.” CEQA Guidelines Section 15128 requires that an EIR contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant, and were therefore not discussed in detail in the Draft EIR.

7.1 Impacts Found to be Less than Significant

This section provides a brief description of effects found not to be significant or less than significant, and dismissed from analysis in the EIR. Note that a number of impacts to other subject areas that are found to be less than significant are addressed in the various EIR topical sections (Sections 3.1 through 3.13) to provide more comprehensive discussion of why impacts are less than significant, and in order to better inform decision makers and the general public.

7.1.1 MINERAL RESOURCES

Mineral Resources of Statewide or Local Importance

The project site does not contain any known mineral deposits or active mineral extraction operations. According to the Stanislaus General Plan, there are no historic or current mining operations other than minor excavations for fill material, which is not considered a significant resource within the General Plan study area (which includes the project site). This condition precludes the possibility of the loss of important mineral resources as a result of the development of the proposed project. *No impacts* would occur.

7.1.2 POPULATION AND HOUSING

Displacement of Persons or Housing

There is presently no existing housing on the project site; therefore, implementation of the project would not result in the displacement of persons or housing. Accordingly, land use and development activities contemplated by the project would not impact population or housing. *No impacts* would occur.

7.2 Impacts Found to be Less than Significant in the EIR

Additional EIR topical sections were found to be less than significant based on analysis contained in Chapter 3. These impacts are summarized in Table 7.2-1.

**Table 7.2-1
Impacts Found Not to be Significant**

Environmental Issues	Initial Study Determination
Aesthetics	
Impact 3.1-1 – Have a substantial effect on a scenic vista, or substantially damage a scenic resource.	Less Than Significant
Impact 3.1-2 – Substantially degrade the existing visual character or quality of the site and its surroundings which are open to public view.	Less Than Significant
Agricultural Resources	
Impact 3.2-1 – Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses.	No Impact
Impact 3.2-2 – Conflict with existing zoning for agricultural use, or a Williamson Act Contract.	No Impact
Impact 3.2-3 – Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.	Less than Significant
Impact 3.2-4 – Conflict with existing zoning for, or cause rezoning of forest land, timberland or timberland zoned Timberland Production.	Less than Significant

Environmental Issues	Initial Study Determination
Impact 3.2-5 – Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	Less than Significant
Air Quality	
Impact 3.3-3a – Violate any air quality standard or contribute substantially to an existing or projected air quality violation associated with carbon monoxide hotspots.	No Impact
Impact 3.3-4 – Expose sensitive receptors to substantial pollutant concentrations.	Less Than Significant
Impact 3.3-5 – Create objectionable odors affecting a substantial number of people.	Less Than Significant
Biological Resources	
Impact 3.4-2 – Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	Less Than Significant
Impact 3.4-3 – Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	No Impact
Impact 3.4-5 – Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	No Impact

Environmental Issues	Initial Study Determination
Impact 3.4-6 – Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	No Impact
Impact 3.4-7 – Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	No Impact
Geology/Soils	
Impact 3.6-1 – Exposure of people and structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, ground failure, or landslides.	Less Than Significant
Impact 3.6-3 – Result in potential hazards due to construction on unstable soils.	Less Than Significant
Impact 3.6-2 – Result in substantial soil erosion or the loss of topsoil.	Less Than Significant
Impact 3.6-4 – Result in potential hazards due to construction on expansive soils.	Less Than Significant
Impact 3.6-5 – Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.	Less Than Significant
Hazards/Hazardous Materials	
Impact 3.8-3 – Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	Less Than Significant
Impact 3.8-4 – Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it	Less Than Significant

Environmental Issues	Initial Study Determination
create a significant hazard to the public or the environment.	
Impact 3.8-7 – Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less Than Significant
Impact 3.8-8 – Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	Less Than Significant
Hydrology/Water Quality	
Impact 3.9-1 – Violate any water quality standards or waste discharge requirements.	Less Than Significant
Impact 3.9-2 – Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).	Less Than Significant
Impact 3.9-6 – Otherwise substantially degrade water quality.	Less Than Significant
Impact 3.9-7 – Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.	No Impact
Impact 3.9-8 – Place within a 100-year flood hazard area structures which would impede or redirect flood flows.	No Impact

Environmental Issues	Initial Study Determination
Impact 3.9-9 – Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.	No Impact
Impact 3.9-10 – Inundation by seiche, tsunami, or mudflow.	No Impact
Land Use and Planning	
Impact 3.10-1 – Physically divide an established community.	Less Than Significant
Impact 3.10-2 – Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.	Less Than Significant
Impact 3.10-3 – Conflict with any applicable habitat conservation plan or natural community conservation plan?	Less Than Significant
Noise	
Impact 3.11-2 – Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels.	Less Than Significant
Impact 3.11-3 – A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.	Less Than Significant
Impact 3.11-4 – A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	Less Than Significant

Environmental Issues	Initial Study Determination
Impact 3.11-5 – For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.	No Impact
Impact 3.11-6 – For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.	No Impact
Public Services and Utilities	
Impact 3.12-2 – Increased Demand for Law Enforcement Services.	No Impact
Impact #3.12-3 – Increased Demand on Public Schools.	No Impact
Impact 3.12-4 – Increased Demand on Parks and Recreation.	No Impact
Impact 3.12-5 – Increased Demand on Library Services.	No Impact
Impact 3.12-6 – Increased Demand on Public Protection Facilities.	No Impact
Impact 3.12-7 – Increased Demand on Paramedic Services.	No Impact
Impact 3.12-8 – Exceed wastewater treatment requirements of the Regional Water Quality Control Board, Central Valley Region.	No Impact
Impact 3.12-9 – Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	No Impact

Environmental Issues	Initial Study Determination
Impact 3.12-10 – Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	Less Than Significant
Impact 3.12-11 – Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.	Less Than Significant
Impact 3.12-12 – Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.	Less Than Significant
Impact 3.12-13 – Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs.	Less Than Significant
Impact 3.12-14 – Comply with federal, state, and local statutes and regulations related to solid waste.	Less Than Significant
Transportation/Traffic	
Impact 3.13-3 – Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	No Impact

CHAPTER EIGHT

REFERENCES

CHAPTER EIGHT – REFERENCES

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CHAPTER NINE
LIST OF PREPARERS

CHAPTER NINE – LIST OF PREPARERS

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JHOUSE ENVIRONMENTAL, INC (PHASE I and II ENVIRONMENTAL SITE ASSESSMENTS)

Jackie House, PG, CEG, CHG – Principal Geologist

APPENDICES – provided on CD (enclosed)

- Appendix A Notice of Preparation and Comments Received**
- Appendix B Air Quality and Greenhouse Gas Impact Analysis Report, Quad Knopf, Inc., January 2013**
- Appendix C Cultural Records Search Results, Central California Information Center, November 7, 2013**
- Appendix D Phase I / II Environmental Site Assessment, Avila & Sons North Washington Road Warehouse Project, J House Environmental, Inc., December, 2013**
- Appendix E Environmental Noise Analysis, Dan Avila & Sons (Washington Road) Warehouse EIR, Bollard Acoustical Consulting, Inc., November 5, 2013**
- Appendix F Traffic Impact Analysis for Washington Road Warehouse, KD Anderson & Associates, Inc., October 15, 2013**
- Appendix G Mitigation Monitoring & Reporting Program**

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