Project Description
Kamm Avenue Processing Plant

1. Introduction and Project Overview

The Kamm Avenue Processing Plant (KAPP) is proposed by Kamm Avenue Pistachio Processing LLC (Applicant). The Applicant has applied to the Fresno County Department of Public Works and Planning (County) for a Conditional Use Permit, a height variance, a Site Plan Review and early termination of certain agricultural land conservation contracts (Williamson Act Contracts) to construct, operate and maintain a pistachio processing plant with the capacity to process 60 million pounds of finished pistachio products per year (Project). The Project would be located on approximately 315.8 acres to the south of Kamm Avenue, west of Highway 33, and east of Interstate 5 in the western portion of unincorporated Fresno County. The Project would provide pistachio processing capacity in the immediate vicinity of existing pistachio orchards that currently ship harvested crops for processing to more remote locations, including plants outside of the County.

The Project would operate year-round to package and process harvested pistachios for retail and wholesale customers. During an approximately 6-week harvest period, which typically occurs during August to October, the Project will operate seven days a week and 24 hours per day to receive, hull, heat, dry and store pistachio crops in onsite storage silos. During non-harvest operations, the Project will operate two shifts per day five or six days per week depending on pistachio product market conditions. The Project will have a full-time workforce of 60 employees. An additional 60 workers will be employed during the 6-week harvest period. The primary pistachio processing facilities will be located within an approximately 80-acre fenced area bordered by Kamm Avenue to the north. Two process water settling and cleaning ponds, each with 50 acre-feet storage capacity, will be located along the southern border of the site and will be connected to the processing plant via an underground pipeline.

Electrical and natural gas service will be provided by the Pacific Gas and Electric Company (PG&E). Project water would be supplied by the Westlands Water District from existing conveyance facilities that extend from the California Aqueduct to a pipeline traversing the east side of the Project area. The Project will contract with affiliated growers in the vicinity to obtain sufficient water supplies to operate the processing plant during average, dry and multiple year drought conditions. Approximately 80 to 90 percent of all water used by the Project will be recaptured, cleaned and used by local pistachio growers for irrigation.

Major components of the Project would include:

- A 130,000 square foot processing and packing building with appurtenant equipment.
- A 15,000 square foot cold storage building.
- Forty nine (49) storage silos with a base diameter of 48 feet and a height of approximately 65 feet with appurtenant scaffolding and access equipment.
- A 21,600 square foot huller canopy and related equipment.

- Thirteen (13) natural gas fired column dryers, each with a 27 million British thermal unit (MMBtu) per hour capacity.
- A 353,000 gallon process water storage tank and a 70,000 domestic water storage tank.
- An onsite domestic water treatment facility, including a facility control room and domestic water treatment filers.
- Access roads, scales, signage and related facilities for harvest and shipping truck loading and unloading and employee and other vehicular access and parking facilities.
- Other necessary infrastructure for Project operations and maintenance, including a shop building, a chemical storage warehouse, a fire pumphouse, a motor control center, a compressor building, an administration office building, breakroom and supervisor office building, guard shacks, sand and media raw water filters and process water separators and screens.

2. Lead Agency

County of Fresno
Department of Public Works and Planning 2220 Tulare Street, 6th Floor
Fresno, California 96721
Contact: Steve White
(559) 600-4078

3. Project Applicant

Kamm Avenue Pistachio Processing LLC
1396 W Herndon Ave
Fresno, California 93 7 1 1
Contact: Jeff Roberts
(559) 288-0688

4. Project Location

The proposed Project site is located on the Central Valley floor in western unincorporated Fresno County, California, between the California Aqueduct and I-5 (see Figure 1). The unincorporated community of Three Rocks, a U.S. Census designated place with a population of approximately 250, is located approximately 1.5 miles to the south of the KAPP facility's primary pistachio hulling and processing equipment. The nearest major roadway intersection is West Kamm Avenue and State Route 33, approximately one mile to the east. I-5 is located approximately 2.5 miles to the southwest on the eastern edge of the Diablo Range foothills. The California Aqueduct is located approximately 1 mile to the northeast. The general latitude and longitude for the Project site is 36.523532° and -120.411545°. The Project is in the Levis, California, U.S. Geological Survey (USGS) 7.5-minute quadrangle.

Figure 1: Project Location

The Proposed Project will be built on portions of parcels with Assessor's Parcel Number (APN) 038-300-17S and 038-300-30S (see Figure 2). The 80-acre main processing plant will be located on the northern half of APN 038-300-17S, a 155.8-acre parcel. Access roads, an underground process water conveyance pipeline, and two lined process water settling and cleaning ponds with appurtenant dewatering and pumping equipment will be located on portions of the southern half of APN 038-300-17S and APN 038-300-30S, a 160-acre parcel (see Figure 3). Approximately 134.6 acres of the combined 315.8 acre parcels would be used for the Project.

Figure 2: Project Location and Adjacent Parcels by APN

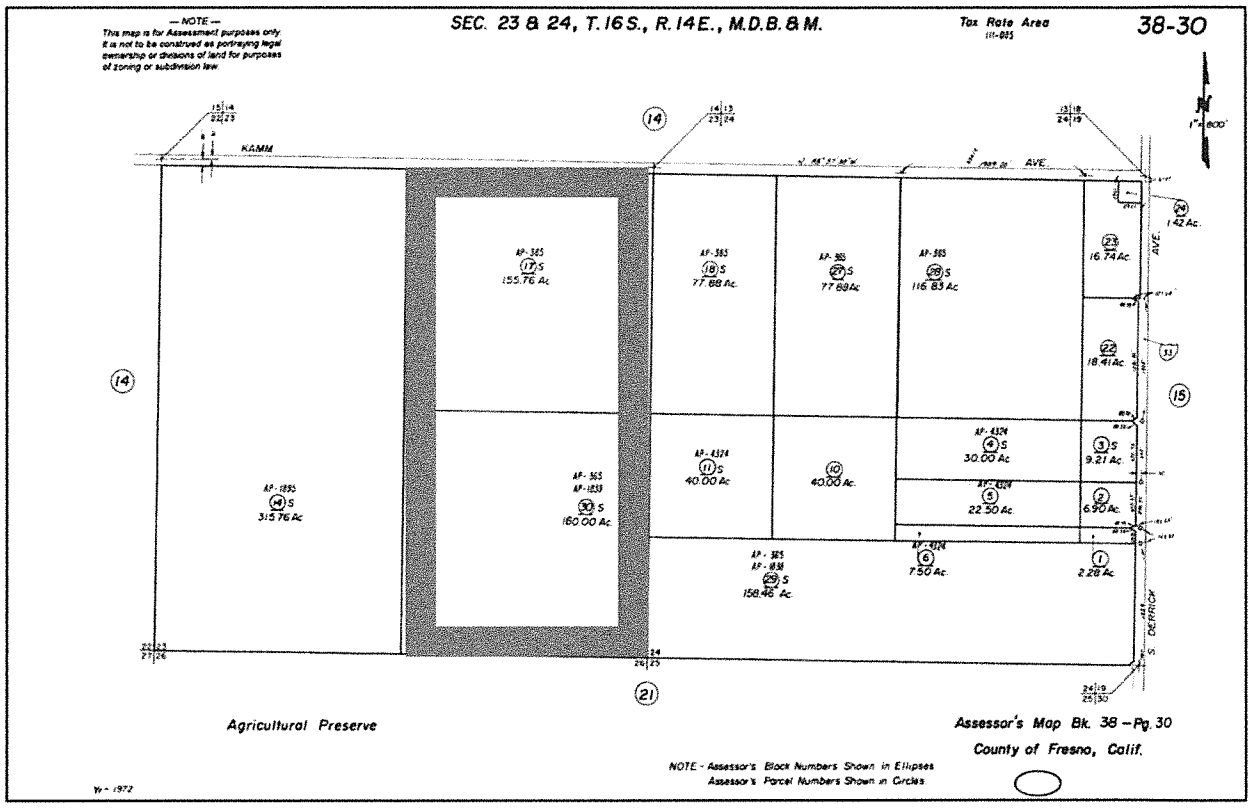
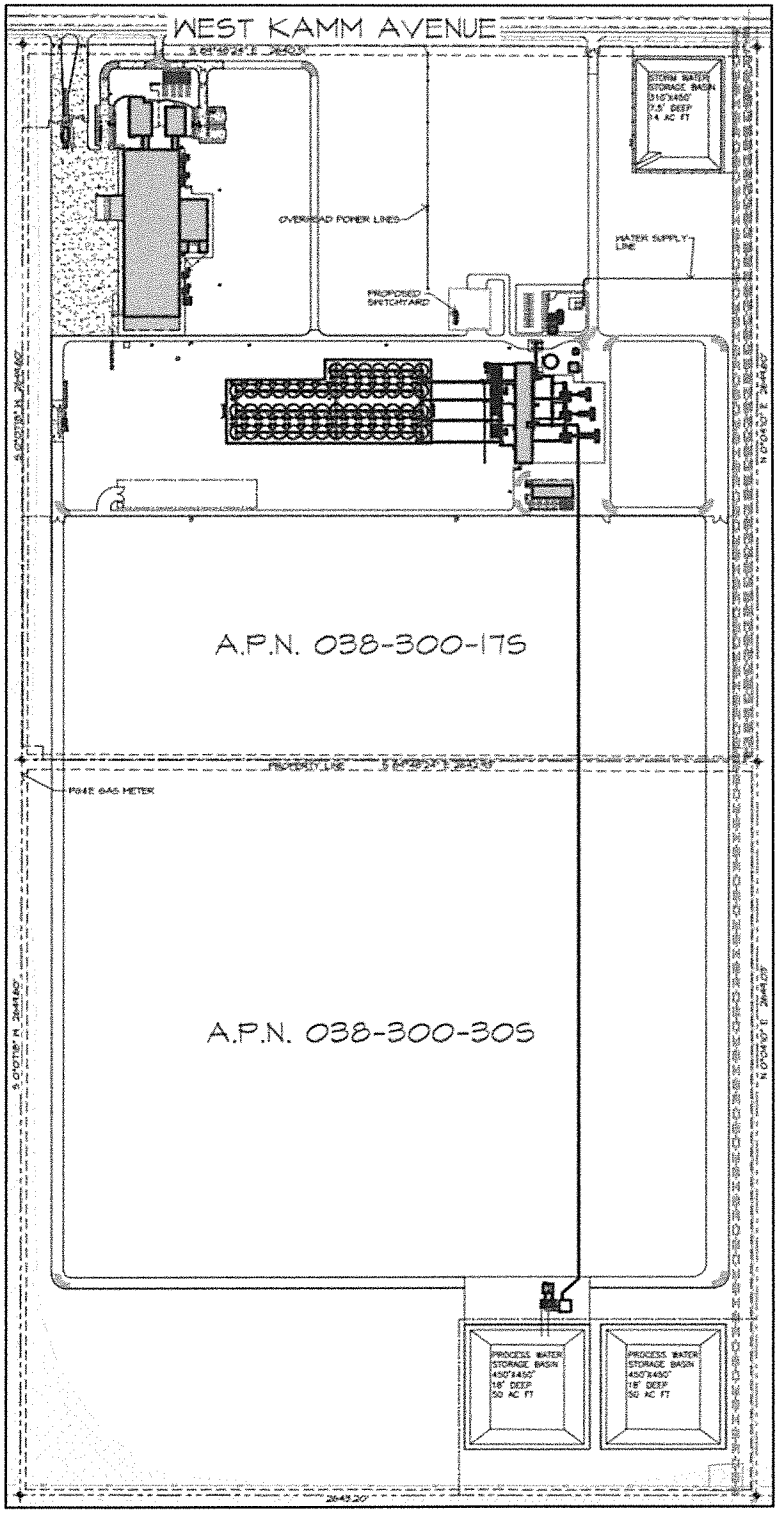


Figure 3: Project Site Layout



5. Existing Site Characteristics

The project site is designated as Exclusive Agriculture in the Fresno County General Plan and zoned AE-20, Exclusive Agriculture, 20-acre minimum required. The site is located in the Westlands Water District. The Project parcels are owned by Ventana South and were acquired in 2011. The parcels have not been used for commercial agricultural purposes since they were acquired. Historical records indicate that that the northern parcel, APN 038-300-17S, has not been used for agriculture since at least 2009. The southern parcel, APN 038-300-30S, has not been used for agriculture since 2006. Neither parcel is identified as prime, statewide important, or unique farmland by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP). The current FMMP map for Fresno County identifies the Project site as farmland of local importance, which includes all farmable lands within the County that do not meet the definitions of prime, statewide, or unique and land that is or has been used for irrigated pasture, dryland farming, confined livestock and dairy, poultry facilities, aquaculture and grazing. APN 038-300-17S and the western 80 acres of APN 038-300-30S are subject to existing Williamson Act Contract No. 365. The eastern 80 acres of APN 038-300-30S are subject to existing Williamson Act Contract No. 1839. Notices of nonrenewal were filed with the County for the portions of these Williamson Act contracts applicable to the Project site on September 20, 2019.

The Project area was evaluated by a qualified biologist in April 2019. The evaluation found that the site was characterized by barren land, including plowed fields and roads with no vegetation, and areas characterized with annual non-native forbs and grasses. No shrubs, trees or jurisdictional wetlands or waters are located on the Project site. Due to the highly disturbed nature of the site from prior years of agricultural use, no special status plants have the potential to occur in the Project area. The biological evaluation also concluded that the site provides marginal or low habitat value for the few potential special status terrestrial or avian species that could occur, including the kit fox, burrowing owls and mountain plover. In late 2019, grading, excavation, foundation installation, crushed asphalt deposition and the placement of two storage silos and other structures occurred, primarily within the northern 80 acres of APN 038-300-17S. The environmental baseline for evaluating potential Project impacts is the site condition prior to the occurrence of these activities.

Existing land uses surrounding the Project site consist of agricultural land, including nearby pistachio orchards owned and operated by affiliated entities that would be served by the proposed processing facilities. Approximately 320 acres of non-irrigated agricultural land is located to the west of the site. The FMMP map for the County identifies areas to the north, east and west as prime agricultural land, most of which is planted with pistachio trees. A solar power generation facility is located approximately 2 miles northeast of the site. The California aqueduct is located approximately 1 mile north. A water pipeline extends from an existing turnout in the Aqueduct along the eastern border of the site. A metered connection will be installed on the pipeline to provide water for the Project. Residential and related commercial land uses are located in Three Rocks, approximately 1.5 miles southeast of the main KAPP processing facilities. An existing electrical power line extends from the Giffen Substation operated by PG&E to the east of the Project area along the north side of Kamm Avenue at the northern border of the site.

6. Project Objectives

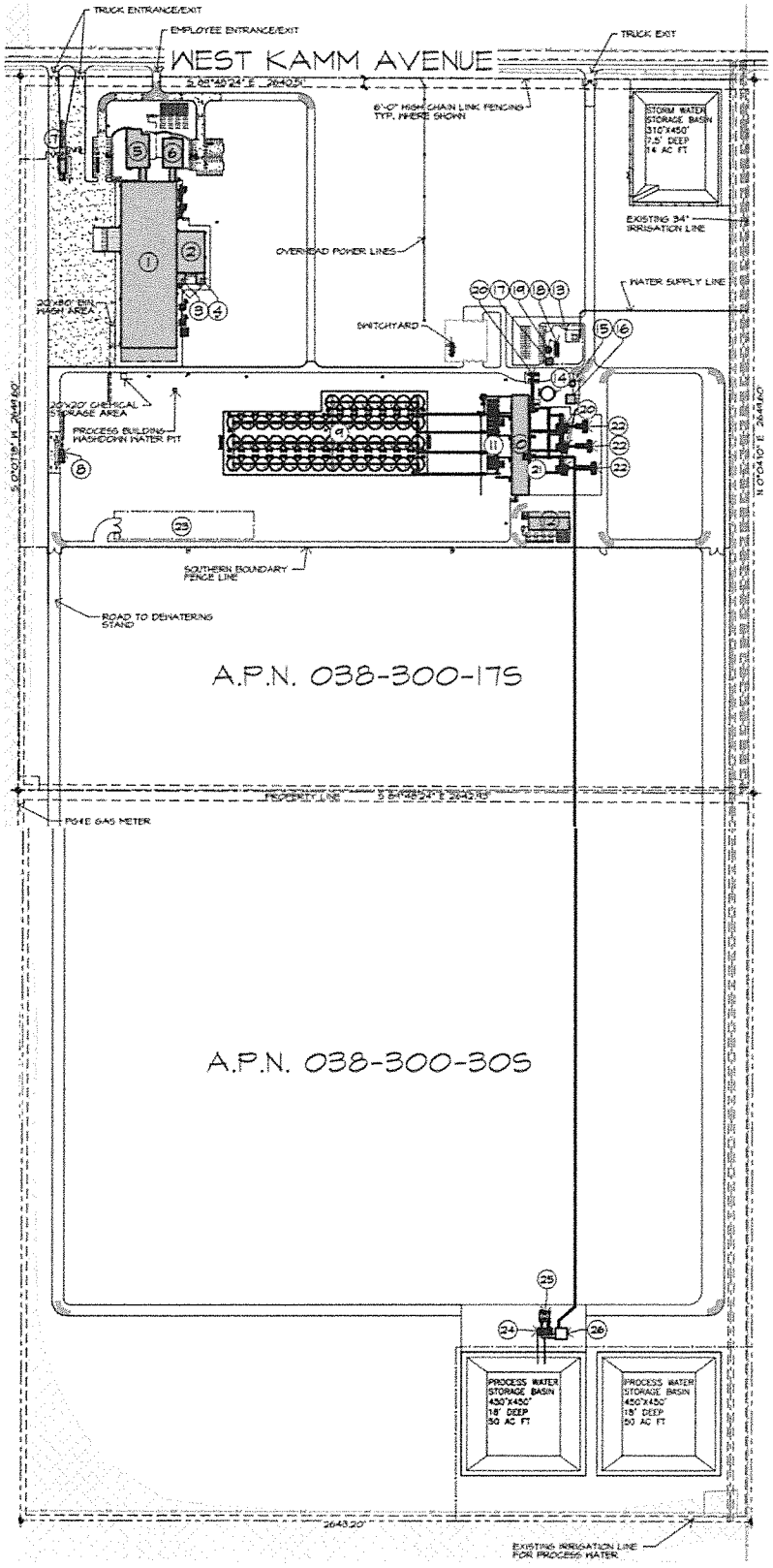
In accordance with CEQA Guidelines Section 15124(b), the following are the Project objectives:

- To provide a modern, state-of-the-art pistachio processing facility in the vicinity of existing pistachio orchards in unincorporated Fresno County that currently lack access to local processing plants.
- To significantly reduce the length of the truck trips and associated roadway wear and tear and air pollution and greenhouse gas emissions required to deliver pistachios to processing facilities from local orchards each year.
- To provide new full-time and seasonal employment opportunities in historically disadvantaged locations of unincorporated Fresno County.
- To support regional agriculture and minimize agricultural land use conflicts by providing processing capacity essential for harvesting and marketing pistachio crops in the immediate vicinity of existing pistachio orchards where no such capacity currently exists.
- To maximize the economic benefit derived from water use in unincorporated Fresno County by contracting to use agricultural irrigation water currently used for pistachio crops to the crops harvested and return 80 to 90 percent of the water for pistachio orchard irrigation in the region.
- To maximize the beneficial reuse of organic solid materials generated from pistachio processing, including use as fertilizer, soil amendments and compost by pistachio growers in the vicinity of the Project.

7. Project Facilities

The proposed pistachio processing plant will have the capacity to hull, store, and prepare for marketing up to 60 million pounds of finished pistachio product per year.

Figure 4: Proposed Hulling, Storage and Processing Facilities



The Project will include the following facilities. Where applicable, each facility is identified by a referenced number identified in parentheses in Figure 4. Other facilities are identified by text in Figure 4 without a reference number.

- One (1) 130,000 square foot (sq. ft.) finished product processing and packing building and related equipment (see number 1).
- One (1) 15,000 sq. ft. cold storage building (see number 2).
- One (1) 1,200 sq. ft. motor control center building (see number 3).
- One (1) 1,200 sq. ft. air compressor building (see number 4).
- One (1) 12,156 sq. ft. administrative office building (see number 5).
- One (1) 8,818 sq. ft. breakroom and supervisor office building (see number 6).
- One (1) 1,000 sq. ft. main scale house, guard shack and 80-foot truck scale at the Kamm Avenue access location (see number 7).
- One (1) 200 sq. ft. scale house and 80-foot truck scale at the harvest truck entrance located on the western edge of the site and south of Kamm Avenue (see number 8). Forty-nine (49) 48-foot base diameter and 65-foot tall storage silos and appurtenant scaffolding and access equipment (see number 9).
- One (1) 21,600 sq. ft. huller canopy and related equipment, including hullers, a hulling wash and residue capture pit, and a float tank for separating blanks prior to drying (see number 10).
- Thirteen (13) 27 MMbtu per hour natural gas fired column dryers (see number 11).
- One (1) 6,570 sq. ft. shop building with a 2,920 sq. ft. canopy (see number 12).
- Four (4) sand and media raw water filters that will provide primary treatment for all water supplied to the plant prior to storage and use (see number 13).
- One (1) 353,000 gallon water storage tank for storing processing water and to provide initial chlorination of all water used onsite (see number 14).
- One (1) 324 sq. ft. fire pump house (see number 15).
- One (1) 972 sq. ft. storage warehouse for storing chemicals used outside of the processing facility (see number 16).
- One (1) 225 sq. ft. domestic water treatment plant control room (see number 17).
- Three (3) domestic water treatment filters that will treat water drawn from the primary storage tank to meet domestic use standards for periodic onsite equipment cleaning and employee use (see number 18).
- One (1) 70,000 gallon domestic water storage tank to store water treated to domestic use standards for periodic onsite equipment cleaning and employee use (see number 19).
- Three (3) precleaning equipment installations to remove twigs, stems and similar solid materials from the raw pistachios prior to hulling (see number 20).
- One (1) huller pit to collect hulling process water and equipment washdown water (see number 21).
- Three (3) excavated and cement-lined hulling pits to receive raw pistachios during the harvest period (see number 22).
- One (1) 50,000 sq. ft. fenced fumigation operations area. (see number 23).
- One (1) 400 sq. ft. fenced chemical storage area for chemicals used in the processing building.
- Connections and metering equipment to supply water from an existing 34-inch diameter pipeline.

- Two (2) underground 18-inch diameter pipelines extending from the hulling water and residue capture pit under the hulling canopy to two water settling and cleaning ponds located on the southern border of the Project area.
- Two (2) hulling process water and hull residue agitators, separators and screen systems located adjacent to the water settling and cleaning ponds to dewater and extract the hull residue from the process water that will be reused for irrigation (see numbers 24-26).
- Two (2) lined 450 sq. ft. process water settling and cleaning ponds, with a combined storage capacity of 32.59 million gallons, or 100 acre-feet, that will remove processing materials and improve water quality prior to the reuse of the process water for irrigation with related pumping equipment.
- Paved or improved (e.g., with crushed asphalt or similar pervious materials) primary access and secondary roads, truck turnaround areas, and employee parking facilities.
- Five (5) septic systems for employee waste.
- One (1) 310-foot x 400-foot unlined stormwater retention basin with a total capacity of 14 acre-feet and related flow conveyance facilities located in the north east corner of the main Project processing plant site.
- Black chain link security fencing 6 feet in height, with access gates, enclosing the entire 80-acre main processing plant on the north of the Project area, the fumigation area, the stormwater basin, and the two processing water settling and cleaning pond facilities on the south of the Project area.
- Natural gas connections and metering equipment to be extended to the site by PG&E from an existing distribution system to the west of the Project.
- Electrical power connections and metering equipment to be extended to the site by connection to an existing electrical distribution line on the north side of Kamm Avenue that will be upgraded by PG&E in conjunction with improvements at an electrical substation to the east of the Project.

The proposed Project will include hulling, drying and storage facilities to process and store raw pistachios during an approximately 6-week harvest period each year and finished product processing facilities that will use the stored pistachios throughout the year.

Harvest period operations will generally route raw pistachios from the eastern side of the processing plant to 49 storage silos extending to the west. In August-October each year, harvest trucks will transport raw pistachios to the facility through an entrance that will be constructed south of Kamm Avenue along the Project's western border. The pistachios will be unloaded from the bottom of the truck trailers into three T-shaped receiving pits located at the east end of the facility. The unhulled pistachios will be conveyed from the receiving pits through precleaning equipment to remove stems, twigs, leaves and other solids. Solid materials extracted by the precleaning process will be conveyed to truck trailers located to the north of the hulling canopy. The precleaned pistachios will be routed to hulling equipment located under the hulling canopy that will remove the soft external hulls from the internal shells. A floater line will be used to separate empty pistachio shells, or "blanks," from the hulled products. Hulled, non-blank pistachios would be then be to gas-fired dryers located to the west of the hulling canopy. Once the drying process is complete, the pistachios would be conveyed to and stored in the onsite storage silos.

Finished products will be processed throughout the year from the onsite stored pistachios. The finishing process will primarily occur in a processing building located to the northwest of the storage silos. Finished processing will include needle sorting (for open and closed in-shell products), electronic sorting (to remove defects and foreign material), hand sorting, packaging, and roasting. Pistachio kernels will be generated through centrifugal type shellers and processed through electronic and hand sorting prior to packaging or roasting. All finished goods orders will be fumigated, typically in the shipping container. Cold storage facilities will include one open room with a temperature of 55-60 degrees to store and protect work in progress products.. Finished products will be loaded for shipment on the west side of the processing building, and exit the plant from a weigh station and a guard shack that directly connects with Kamm Avenue on the north side of the Project area.

The Project will use filtered and chlorinated water for the hulling process during the harvest, for onsite fire suppression, and for onsite landscaping. Hulling water would be supplied from an existing adjacent pipeline and routed through four sand and media raw water filters to remove solids. Extracted solids from the filtration process will be conveyed to the huller pit located under the hulling canopy. The filtered water will be chlorinated and stored in a 353,000 huller storage tank. The Project will construct and operate onsite water treatment facilities to produce water that meets domestic use standards for periodic process equipment, bin, and silo washing and employee consumption. Water will be conveyed from the huller water storage tank to the domestic water treatment system, including three domestic water filters, and will be stored in a 70,000 gallon domestic water tank. The onsite domestic water system be permitted by the County and the State Water Resources Control Board and will meet all applicable water quality requirements for domestic use.

Hulling process and domestic equipment wash water used in the facility will be directed to a hulling water and hull residue collection pit under the hulling canopy. Water and hull residue in the collection pit will be conveyed through two 18-inch diameter underground pipe to agitator, separator and screen equipment to be constructed just north of two process water settling and cleaning ponds on the southeast border of the site. The hulling residue will be dewatered to a moisture content of approximately 12 percent and loaded into trucks at an adjacent loading dock. The process water will be conveyed to two settling and cleaning ponds with a combined storage capacity of 32.59 million gallons, or 100 acre-feet. The process water will be used for pistachio crop irrigation in immediate vicinity of the Project in accordance with Waste Discharge Requirements that will be issued by the Central Valley Regional Water Quality Control Board.

Facility management, administrative and employee buildings and parking will be constructed adjacent to the finished product processing building. These buildings will include office space, meeting rooms, employee personal storage, safety equipment, breakrooms and similar facilities, including restrooms. A septic system with five septic tanks would be installed in the Project Area to support the restroom facilities and sewage needs of the facility's full-time and seasonal staff and employees.

All stormwater and incidental runoff within main plant area will be directed to an onsite unlined detention basin near the northeastern border of the site. The basin will have the capacity to store 14 acre-feet of stormwater and other runoff and will prevent offsite discharges from the site. Water retained in the basin will evaporate or be absorbed in the upper portions of the underlying

soil formations and have no contact with local groundwater, which occurs at a depth of approximately 450 feet. The process water settling and cleaning ponds on the southern border of the site would only contain significant amounts of water for brief periods during the harvest and will be regularly drained for pistachio crop irrigation in the local area. No offsite stormwater or nuisance flow discharges will occur from the ponds.

Other buildings required for facility operation include a motor control center, shop building, storage warehouse and air compressor building. The motor control center will house all electrical components in a controlled, properly ventilated environment. The air compressor building will house air compression equipment used in the processing plant and for other compressed air demands in a controlled, properly ventilated location. The storage warehouse will be used to store used outside of the processing building in the facility.

To meet applicable food safety standards, a 100-foot by 500-foot fumigation operations area will be maintained in the Project Area. Access to the fumigation area will be strictly controlled and fumigants will be stored and utilized in accordance with all applicable laws and regulations. Other chemicals used in the plant facility include various equipment cleaners, chlorination for water treatment and disinfection, equipment fuel and lubricants, and pest controls. All potentially hazardous materials stored onsite would be locked in locations with limited access for qualified employees and will be stored and used in compliance with all applicable laws and regulations, including the requirements of the Fresno County Division of Environmental Health. Material Safety Data Sheets for all applicable onsite materials would be available to onsite personnel.

The main truck access to the Project site would be provided from Kamm Avenue where a scale and guard shack will be located southwest of the finished processing building. Harvest deliveries would enter the site and be directed to the guard shack. Other points of ingress and egress will be provided for emergency access as required by the County Fire Department and other applicable laws and regulations. Public access to and vehicle use on Kamm Avenue would be unaffected by the Project. All Project facilities will maintain applicable setbacks from public roadways and infrastructure required by the County, other regulations and laws, or deed restrictions and future rights-of-way, if applicable. The onsite roadway system would include harvest truck delivery and exit routes, finished product shipment and delivery access roads and loading and unloading docks, and other internal roads to access onsite equipment for maintenance and other purposes. The roads will vary in width from 20 to 42 feet wide and constructed to be consistent with facility maintenance requirements and Fresno County Fire Department standards. These roads would be paved or surfaced with crushed asphalt or another commercially available pervious materials and would provide a fire buffer, accommodate Project operations and maintenance activities, and facilitate on-site circulation for emergency vehicles.

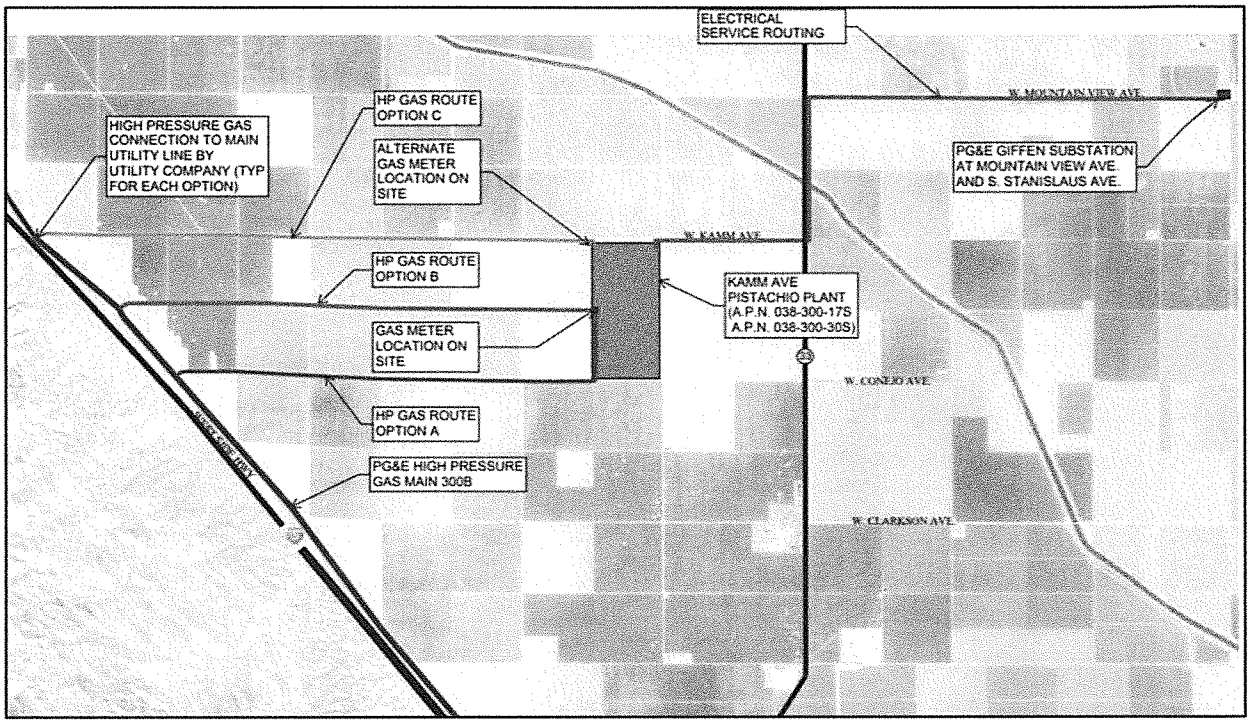
All roads within the Project site will be constructed and maintained by the Project and will not be maintained by the County. All internal roads will be treated to avoid dust generation during construction and operation, including surfacing with crushed asphalt, gravel, compacted native soil, or a dust palliative. Temporary driveway aprons to points of ingress/egress during construction may be installed to accommodate construction traffic, but all permanent driveway aprons would be built according to Fresno County standards.

The boundary of the Project would be secured by a black 6-foot-high chain-link perimeter fence around the 80-acre main plant area, the fumigation area, the stormwater basin, and the process water ponds on the southern border of the site. Motion sensitive, directional security lights would be installed to provide adequate illumination around access points and operational locations within the site. All lighting would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties and will conform with applicable Fresno County rules and regulations for outdoor lighting. Off-site security personnel could be dispatched during nighttime hours or could be onsite, depending on security risks and operating needs. Security cameras, motion detectors, or similar technology would be installed as required to allow for monitoring of the site through review of live footage 24 hours per day, 7 days per week. Security cameras or other equipment would be placed along the perimeter of the facility as needed.

During all phases of the Project, signage for safety and identification would be posted around the perimeter of the Project site. No large billboard or commercial advertisement signage will occur. All Project signage would conform with Fresno County signage requirements.

The Project will be supplied with natural gas and electrical power by PG&E. Natural gas service will be extended by installing a pipeline from existing distribution facilities to the west of the site, including along Kamm Avenue or from other points along the existing distribution pipeline to the south that would extend east to the Project site on land owned by entities affiliated with the Project applicant (see Figure 5). Electrical power would be provided by connecting with an existing powerline located on the north side of Kamm Avenue near the northern border of the Project site. The power line extends from a PG&E substation to the east (see Figure 5). PG&E is in the process of upgrading the substation, and the existing transmission line would also likely be upgraded to meet Project and other anticipated electrical demand in the region. The plant would contract with commercial electrical power generation providers to provide onsite generation capacity to meet peak electricity demand, including during the harvest period, until the substation and transmission line improvements are completed.

Figure 5: Potential Natural Gas Service Alignments from Existing Distribution Line to the Site and Existing Electrical Substation and Transmission Line to the Site

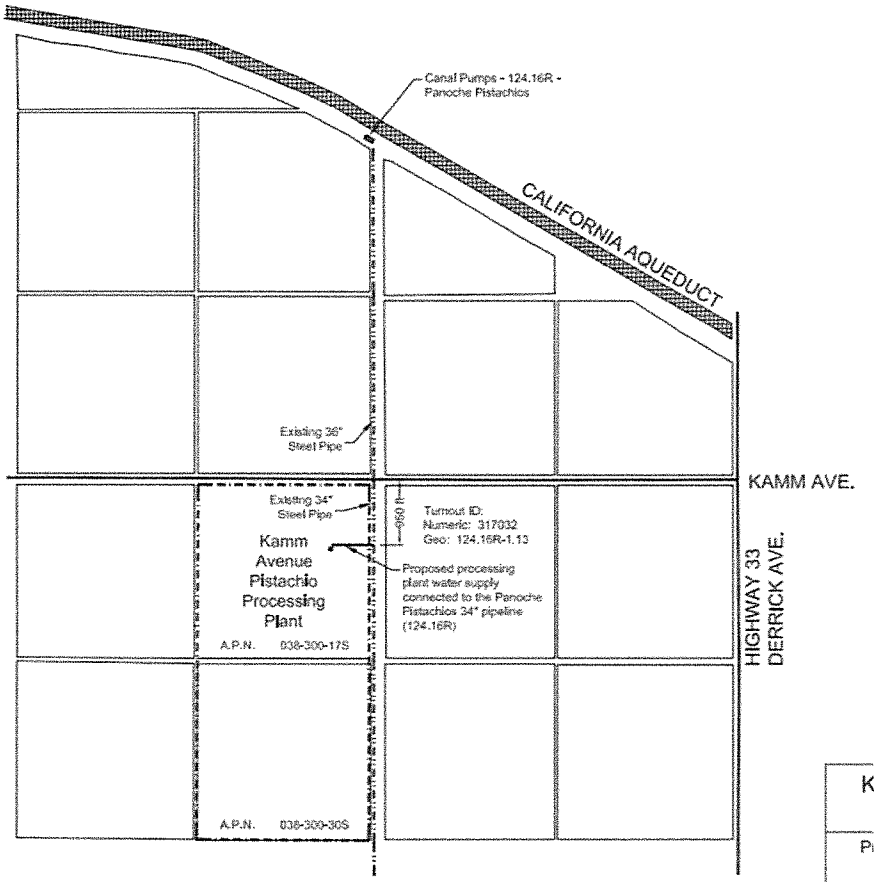


8. Water Supply and Irrigation Reuse

8.1 Overview

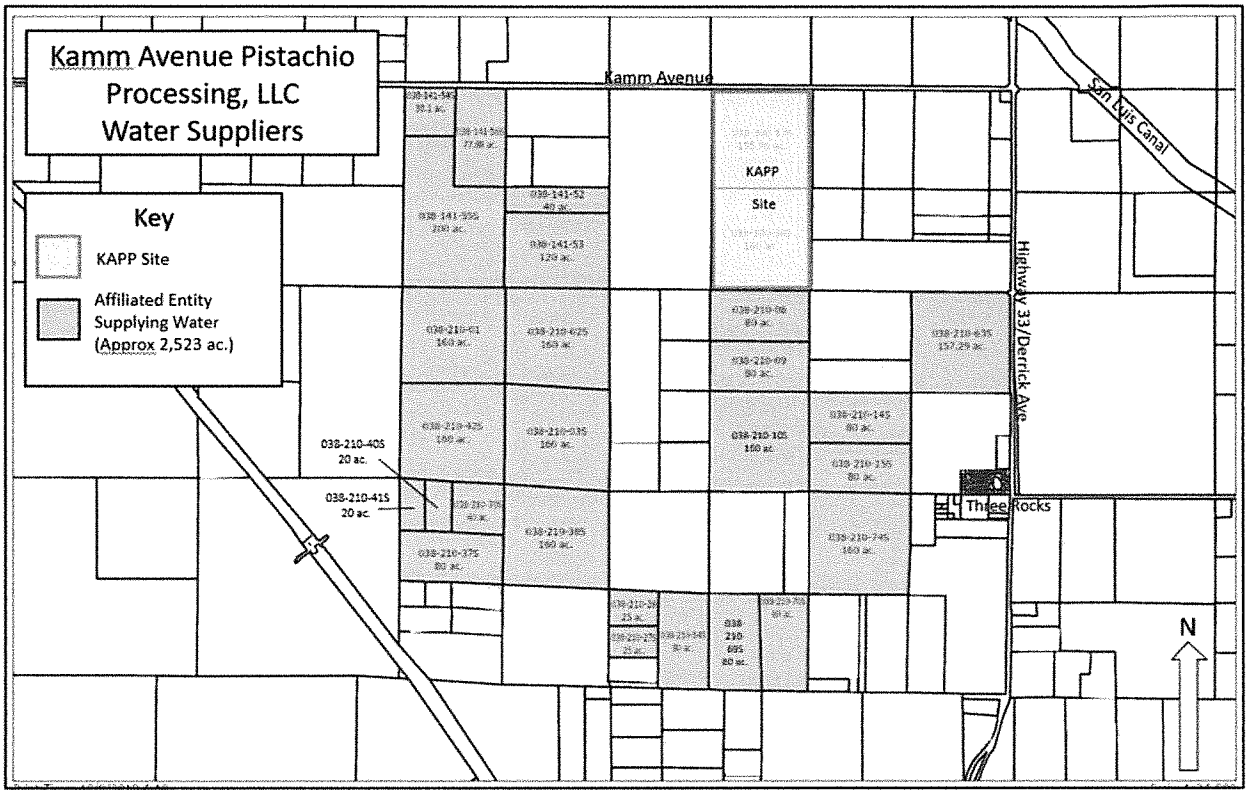
The Project land and pistachio orchards owned and operated by affiliated entities in the vicinity of the Project are within the Westlands Water District (WWD) service area. All of these lands have an annual allocation per acre of surface water imported by WWD through the federal Central Valley Project. WWD surface water used in the Project region is conveyed through turnouts located along the California Aqueduct to distribution pipelines that deliver the water to local distribution facilities for pistachio orchard irrigation. An existing 34-inch water distribution pipeline is located along the eastern border of the site and extends to existing turnout facilities in the Aqueduct. The Project will install connection and metering equipment on the existing pipeline to deliver water supplies necessary to operate the processing plant (see Figure 6).

Figure 6: Existing Aqueduct and Water Distribution Line and Proposed Project Connection



Surface water supplies in California, including the surface water provided to users in the Project region by WWD, are subject to variability due to hydrologic conditions and regulatory requirements. The Project will contract with affiliated entities that have surface water allocations from WWD for 2,523 acres of land (see Figure 7). These allocations include rights to use certain drier year water supplies, such as stored "carryover" water, that will be sufficient to meet Project demand during average, dry and multiple dry years. The Project will purchase water from the contracting growers to meet demand, and WWD will supply the water in accordance with an approved municipal and industrial (M&I) account for the Project. No groundwater will be used for Project purposes.

Figure 7: Regional Growers Contracting to Supply Project Water



Based on information from similar processing facilities, approximately 80 to 90 percent of all water supplied to the Project will be captured, cleaned and distributed for irrigation use in the vicinity of the Project. Consequently, the Project will not significantly affect the net supply of water for pistachio irrigation in the region. The Project will also not significantly affect groundwater supplies or conflict with groundwater sustainability management plans that have been developed by WWD for regional aquifers.

8.2 Project water demand

The Project will use filtered and chlorinated process water for hulling operations, fire suppression and landscaping. A portion of the process water will be treated onsite to domestic use standards for periodic process equipment, bin, and silo washing and employee use.

Most of the Project's water demand will occur during the 6-week harvest period and be used in the hulling process. Hulling operations would require up to 1.8 million gallons (5.5 acre-feet) per day and a total of 64.9 million gallons (199.3 acre-feet) per harvest each year. The huller tank will also maintain a supply of 100,000 gallons (0.3 acre-feet) for fire suppression purposes in accordance with Fresno County Fire Department requirements. Approximately 350,400 gallons (1.07 acre-feet) per year of water from the huller tank would be also be used for onsite irrigation. Total Project process water demand will be approximately 65.4 million gallons (200.7 acre-feet) per year.

Most of the domestic water demand will be used for process equipment washing, which will occur 60 times per year. Process equipment washing will require 2,125,000 gallons (6.5 acre-feet) of domestic water per year. Bins used to store work in progress product will be washed 4 times per year, and each silo will be washed once per year. These activities will require approximately 285,00 gallons (0.9 acre-feet) of domestic water per year. Employee consumption will require approximately 315,000 gallons (1.09 acre-feet) of domestic water per year.

Table 1 summarizes the Project's total annual process and domestic water demand by primary use. The Project will require a total of approximately 68.1 million gallons (209 acre-feet) per year.

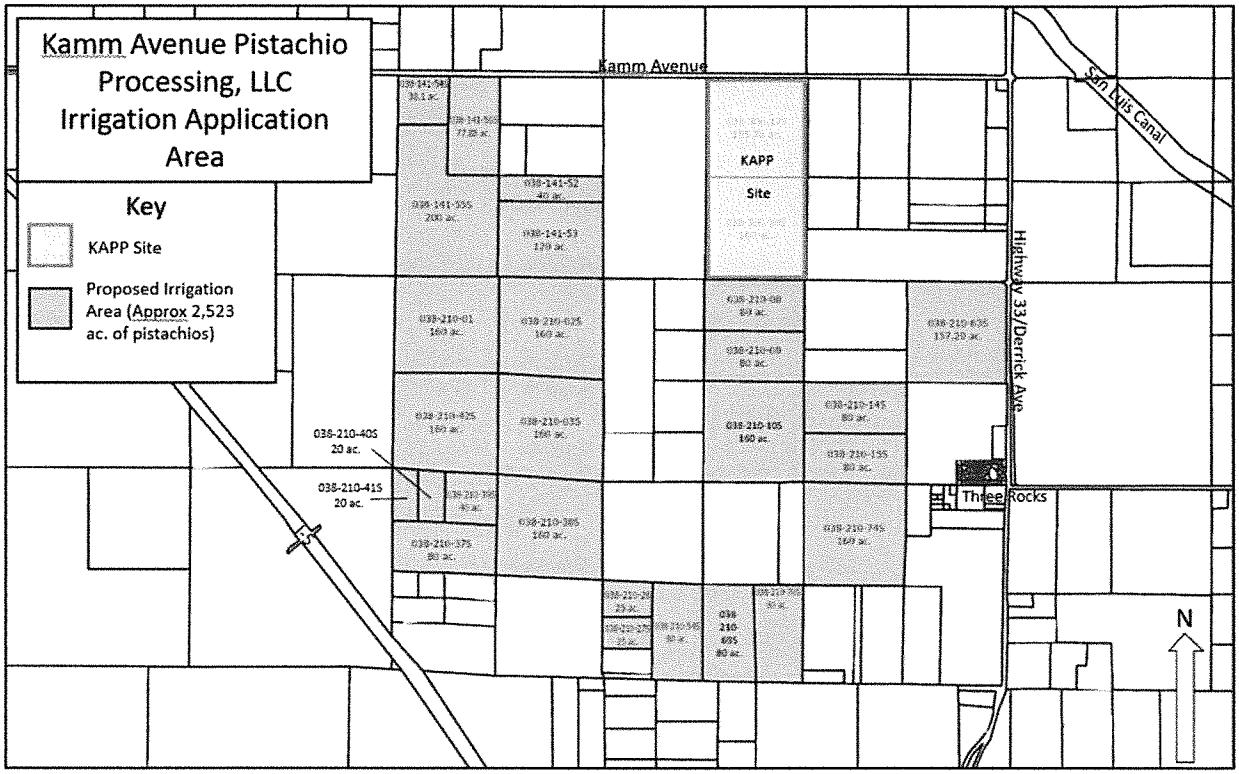
Table 1: Estimated Annual Water Demand for the Project

	Gallons	Acre-feet
Process water		
Hulling wash (harvest period only)	64,945,433	199.3
Fire suppression	100,000	0.3
Landscaping	350,400	1.08
Total Process	*65,395,833*	*200.7*
Domestic Water		
Process equipment wash	2,125,000	6.5
Bin wash	168,000	0.5
Silo wash	117,600	0.4
Employee	315,000	1.0
Total Domestic	*2,725,600*	*8.4*
Total Project water demand	**68,121,433**	**209**

8.3 Process water irrigation use

The Project will recover and provide for irrigation reuse approximately 80 to 90 percent of the water supplied to the facility, or from 167 to 188 acre-feet per year. Irrigation water from Plant operations will be supplied to pistachio growers in the region from the process water settling and cleaning ponds located on the southern border of the site. This water will be conveyed from the ponds through existing offsite irrigation water distribution facilities. Based on water quality information from existing pistachio processing plants using similar source water, including anticipated nitrogen, potassium, and biochemical oxygen demand (BOD) levels that have been permitted in existing WDR orders adopted by the Regional Board, irrigation water from the Project would be used on a minimum of two acres of land per acre-foot to meet applicable water quality requirements. The water application area would include the 2,523 acres of land contracted to supply water for the Project, which would provide sufficient acreage to apply water from the facility at agronomical rates and in amounts that will meet applicable water quality requirements in the vicinity of the proposed facility (see Figure 8).

Figure 8: Project Irrigation Water Application Locations



9. Solid Materials

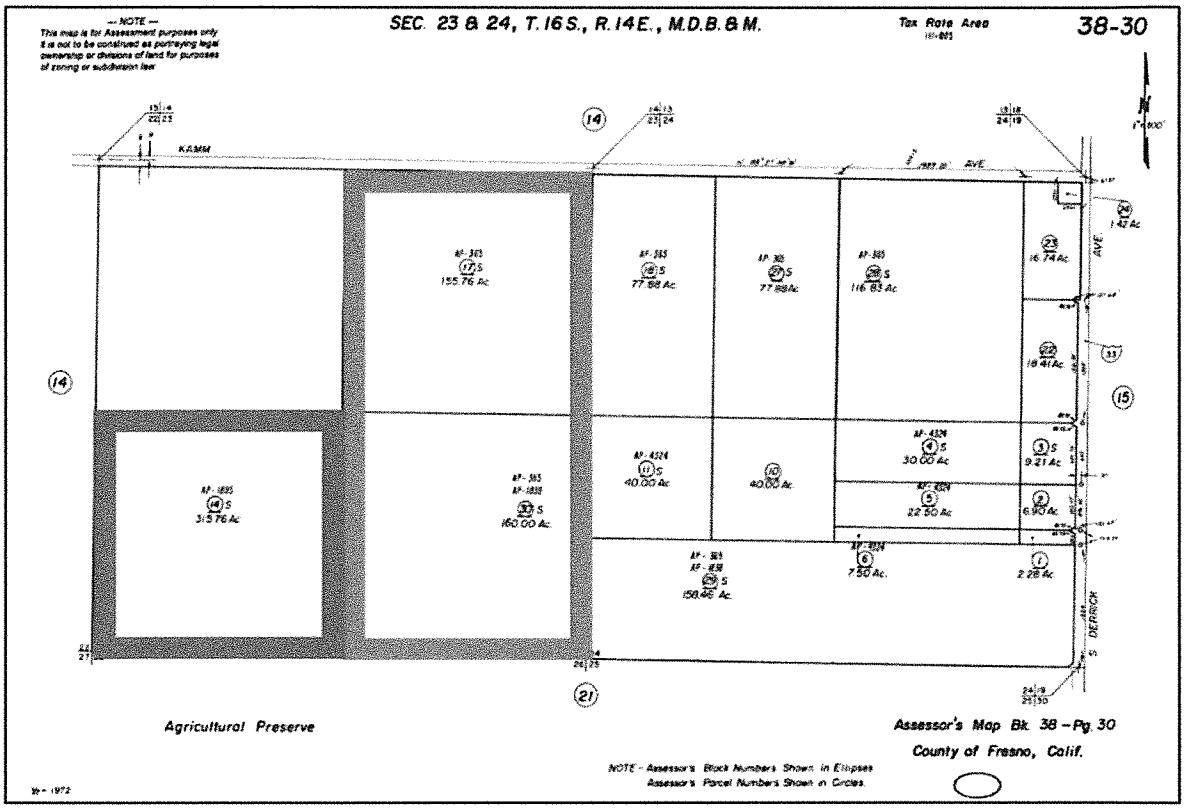
Organic solids will be produced from Project operations, primarily during the harvest period. These materials include pretreatment twigs, stems and other solids extracted prior to hulling, dewatered hull material, and pistachio shell blanks (see Table 2). Organic materials will also be generated by periodic cleaning of the process water settlement and cleaning ponds. Project operations, such as employee food consumption and paper and packaging material use, will generate organic and inorganic solid wastes which will be recycled to the extent feasible.

Table 2: Solid Materials Produced by the Project, Pounds per Year

	Pounds
Precleaning solids	5,015,772
Pistachio shell blanks (from hulling and processing operations)	6,000,000
Dewatered hull residue (12% moisture content)	13,064,654

The Project will market solids generated by the facility for beneficial reuse as soil amendments, cement filler (e.g., pistachio blanks), livestock feed or mulch. The beneficial reuse of these solids is subject to demand variability based on the market conditions that occur in each year. Hulling and processing solids that are not beneficially reused will be conveyed to an adjacent solid materials management site, shredded and/or dried, and disked into the soil (see Figure 9). The site will be operated in accordance with all applicable laws, regulations, and permit requirements. The Project will be served by a private disposal service to collect and convey recycled and other waste generated from daily operations.

Figure 9: Solid Materials Management Site Location (green boundary) and Project site (blue boundary)



10. Construction

The construction of the Project facilities would occur over approximately 40 weeks. Construction equipment, including welding equipment, forklifts, grade-alls, scissor lifts and boom lifts, would be brought to the site by independent contractors as required for construction. Construction materials and equipment, including pipelines, cement, storage silos and scaffolding, building construction materials, roadway paving and pervious materials, precleaning, hulling, and processing equipment, dryers, pumps and conveyor systems, refrigerators for cold storage, and natural gas and electrical distribution equipment would be brought to the site for installation. No offsite staging or laydown areas would be required for construction. The construction areas would be secured by temporary or permanent fencing and security personnel as necessary for public safety. Temporary power would be provided via mobile generators or local distribution lines.

The site is generally level and has been historically graded or tilled. Project-related grading would be minimal and occur only as necessary to level dips and hills. The site cut and fill would be approximately balanced and no imported fill would be required for project construction. Since construction will disturb more than one acre of land, the Project will obtain construction period permit coverage under the state Construction General Permit and the National Pollution

Discharge Elimination System program, including the preparation of a Stormwater Pollution Prevention Plan (SWPPP) . The SWPPP would be prepared by a qualified engineer or erosion control specialist, and would be implemented before construction to reduce potential impacts related to erosion and surface water quality during construction activities and throughout the life of the Project. The SWPPP would be submitted to the Regional Board and the County prior to issuance of building or grading permits.

Construction equipment would operate in accordance will all applicable laws, regulations and permit requirements, including permits issued by the County. The majority of the labor force is expected to be located in the County, including the City of Fresno and communities near the Project site. All materials for the Project's construction would be delivered by truck. The majority of truck traffic would occur on designated truck routes and major streets. Construction traffic will be routed to avoid traversing through local roads in nearby communities. Flatbed trailers and trucks would be used to transport construction equipment and construction materials to the site. Project components would be assembled on-site. Traffic resulting from construction activities would be temporary and would occur along major area roadways as workers and materials are transported to and from the Project site.

Prior to construction, a qualified biologist will be retained to conduct environmental awareness training for Project personnel, including a discussion of the defined access routes to the Project site and Project site boundaries within which Project activities must be accomplished. Construction employees would strictly limit their activities, vehicles, equipment, and construction materials to the Project footprint and designated routes of travel.

The Project would also coordinate with the California Office of the State Fire Marshall and the Fresno County Fire Department to provide training for personnel to minimize fire risk, properly manage combustible vegetation or agricultural products on and around the Project site, and discuss emergency responses and routes. Fire-suppression equipment (e.g., fire extinguishers) would be made available on the Project site at all times. All heavy equipment would be required to include mechanisms for fire suppression, including spark arresters or turbo-charging (which eliminates sparks in exhaust) and fire extinguishers.

11. Project Operations

The Project would operate year-round. Outside of the 6-week harvest period, the facility would have a full-time workforce of 60 employees working two per day and 5 to 6 days per week depending on demand for pistachio products. During the harvest period, a temporary workforce of 60 employees will also be employed for the duration of the harvest. The Project facilities will operate 24 hours per day seven days per week during the harvest period. There will be a maximum of 120 employees per day on the site during the harvest (see Table 3).

Table 3: Full Time and Seasonal Employees

	Full time Employees	Shifts per day	Seasonal Employees	Shifts	Maximum number of daily employees

Nonharvest Operations	30	2	0	0	60
Harvest Period	30	2	30	2	120

Regular traffic to and from the site will include employee vehicles, harvest trucks transporting raw pistachios to the site, shipping trucks for distributing finished products from the site, recycling and daily waste disposal, visitor trips, delivery trips, and maintenance vehicle trips. The Project will significantly reduce the length of harvest truck trips delivering raw pistachios from local orchards for processing. These crops have historically been transported to processing plants located at least 30 miles from the orchards and in many cases outside of Fresno County. An adjacent solid materials management site will be used to disk hulling and processing solids that are not beneficially used by third parties. The Project will also reduce the number of employee trips by encouraging ridesharing and recruiting for personnel from local communities to the extent feasible. The Project will coordinate with recyclable and daily solid waste service providers, vendors, other visitors, and delivery services to minimize the number of trips to and from the site that will occur each day. Table 4 summarizes the maximum daily number of trips and the annual total number of trips by type for the Project.

Table 4: Maximum Number of One-way Trips per Day by Season

Season	Employee	Harvest truck	Shipping truck	Solid materials reuse and disposal	Recyclable and daily solid waste	Visitors	Deliveries	Maint.	Total
January – August	60	0	5	0.4	0.2	0.2	0.6	0.4	66.8
September – October	120	150	8	9	2	2	2	2	295
November – December	60	0	8	0.4	0.2	0.2	0.6	0.4	69.8

The majority of Project operational traffic would occur on designated truck routes and major streets. Truck traffic will be routed to avoid traversing through local roads in nearby communities. All full time and seasonal employees will receive the same biological resource awareness, and fire and emergency response training as provided for construction period personnel. This training will be provided for each new employee and once per year for continuing employees.

12. Required Permits and Approvals

The County of Fresno will be the Lead Agency for the proposed Project pursuant to the California Environmental Quality Act (CEQA). In additional to the certification of the

Environmental Impact Report for the Project, the following County of Fresno approvals and permits will be required:

- Approval of the requested Conditional Use Permit for the Project, including the onsite domestic water treatment facilities;
- Completion and approval of a Site Plan Review for the Project;
- Approval of a height variance to install 65-foot tall silos in the AE-20 zoning district for the site;
- Early cancellation of the existing Williamson Act Contracts on the Project site; and
- Approval of grading, building and other County permits required to construct and operate the Project.

The Project will also require permits and approvals from other regulatory agencies, including the following:

- An Authority to Construct and Permit to Operate issued by the San Joaquin Valley Air Pollution Control District;
- Waste Discharge Requirements issued by the Central Valley Regional Water Quality Control Board; and
- Drinking water source assessment and other applicable domestic water system approvals issued by the State Water Resources Control Board.