

WOODBIDGE IRRIGATION DISTRICT

Pixley Lateral Pipeline Conversion

**Installation of 4-foot Inside Diameter
Reinforced Concrete Pipeline (RCP) on Pixley Lateral from the West Main Canal to Stockton Delta
Water Supply Project (DWSP) Treatment Plant**



October 2016

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1.0 Project Description

1.1 Background

Woodbridge Irrigation District's (WID) Pixley Lateral Canal extends west approximately 10,000 feet from WID's South Main Canal to the City of Stockton's (Stockton) Delta Water Supply Project (DWSP) Treatment Plant, which is located on the City's 126-acre site at 11373 North Lower Sacramento Road. Currently, with the exception of piped roadway crossings, the majority of Pixley Lateral is an unlined, open-ditch canal serving growers between the South Main Canal and Lower Sacramento Road, one-quarter (1/4) mile south of Mettler Road, midway between Lodi and Stockton (Figure 1). As the lead agency for this project, WID proposes piping the currently open majority of the Pixley Lateral Canal with four-foot inside diameter reinforced concrete pipe (RCP). The surrounding area is agricultural and low-density residential use.

WID entered into a 40 year Water Sale Agreement with the City of Stockton on January 22, 2008, to sell and deliver to the City, for use as a part of the City's municipal water supply, up to 13,000 acre-feet per year. In 2009, an Initial Study/Mitigated Negative Declaration was adopted for this effort. The water is delivered to Stockton from March through July each year in monthly amounts set forth in the Agreement, through WID's Wilkerson Lateral.

The District's purpose in converting the Pixley Lateral Canal to a pipeline is to provide a redundant or alternate route (other than the Wilkerson Lateral to the north, which is currently the sole supply conveyance) for the delivery of water to Stockton's Treatment Plant, all while continuing to serve existing growers along the Pixley Lateral (Figure 2).

As part of San Joaquin County's separately planned widening of Lower Sacramento Road between Stockton and Lodi from two lanes to four lanes (San Joaquin County's "Lower Sacramento Road Improvement Project"), WID has already constructed the 4-foot inside diameter replacement pipeline in the segment of the Pixley Lateral that crosses under Lower Sacramento Road, during the widening of that portion of the roadway.

1.2 WID Water Rights

WID currently diverts water from the Mokelumne River under pre-1914 appropriative water rights for diversion of up to 300 cubic feet per second (cfs). WID also holds overlapping water rights (License No. 5945) from the SWRCB for the appropriation of 300 cfs from February 1 to October 31 for irrigation use, supplemented by License No. 8214, for the diversion of an additional 114.4 cfs from May 1 to August 31 and November 1 to January 31. Together, the combined rights under the two Licenses and WID's pre-1914 rights are limited to a maximum diversion of 414.4 cfs, which is the approximate capacity of its Main Canal Intake.

WID has entered into agreements with East Bay Municipal Utility District (EBMUD) concerning WID's rights to divert water from the Mokelumne River and providing for the release of WID's water entitlements from EBMUD's Pardee and Camanche Reservoirs on the Mokelumne River. These agreements acknowledge the priority of some of WID's water rights to the EBMUD rights. Under these agreements, EBMUD releases a Regulated Base Supply of 60,000 acre-feet (AF) of water each year from Camanche Reservoir for diversion by WID at the Woodbridge Dam,

subject to a reduction of not to exceed 35 percent in water years when the annual inflow to Pardee Reservoir is less than 375,000 AF. Aside from these agreements, WID diverts additional water above the RBS, under its water rights, when available.

1.3 WID Existing Water Diversion

The existing water diversion that serves WID is located along the Mokelumne River at the town of Woodbridge. Existing facilities that support the diversion include the Woodbridge Dam, which impounds Lodi Lake and associated waterways, existing fish passage facilities, and an existing fish screen. The 414 CFS fish screen is located at the mouth of the WID Main Diversion Canal approximately 1,700 feet southwest of Woodbridge Dam. The v-shaped screen system meets current California Department of Fish and Wildlife (CDFW) and National Marine Fisheries Service (NMFS) standards, and includes a flow-through bypass system that routes out-migrating juvenile fish that could otherwise be entrained, into a 30-inch diameter pipeline which carries and returns them to the River downstream of the Woodbridge Dam. These facilities were recently updated as a portion of WID's efforts to meet regulatory standards and improve fisheries habitat along the lower Mokelumne. WID has gauged its withdrawals from the Mokelumne at the present point of diversion since the 1920s. During that time period, diversions have varied, from as low as 27,000 AF per year (AF/yr) in 1926, to a maximum 148,000 AF/yr in 1953. Annual diversions fluctuate as a result of the amount of water available for diversion, and the demands of water users served by WID.

1.4 WID-City of Stockton Water Transfer

Since 2008, Stockton has contracted to purchase water from WID under a 40-year Agreement in order to supplement Stockton's surface water supply. Stockton is now implementing its Delta Water Supply Project (DWSP) to pump water from the Delta under its State Water Resources Control Board (SWRCB, State Board) Permit No. 21176, which is intended:

- To supplement declining and unreliable surface water supplies;
- To reduce draft on groundwater resources; and
- To provide replacement water supply to offset pumping curtailments imposed on Stockton's DWSP due to fishery mitigation requirements.

The DWSP provides Stockton with additional surface water supplies that it will use conjunctively with local groundwater to meet the long-term needs of the Stockton community. However, rulings to protect endangered fish in the Sacramento-San Joaquin Delta have been enacted to restrict the amount of water that Stockton can divert via the DWSP under its Permit 21176. The diversion restrictions are enforced during springtime and industrial demand. Such reductions in the volume of water supplied by the DWSP would represent a loss of available surface water to Stockton, and would interfere with Stockton's ability to meet the needs outlined above.

The water transfer between Stockton and WID serves to alleviate these restrictions in supply and compensate for the effects of the anticipated constraints on Delta water withdrawal during the months of March through July. Currently, water is conveyed by WID to Stockton from March to July via the WID South Main Canal and the Wilkerson Lateral, directly to the DWSP Treatment Plant, where it is then treated for distribution.

Amounts of water available to Stockton consist of two phases. Phase I includes deliveries of up to 6,500 AF/yr of Mokelumne River water. This water is used by Stockton to replace water that was planned for diversion from the Delta under the DWSP, but which is anticipated to be unavailable due to regulatory restrictions referred to above. Phase II of the water transfer would include additional allocations of up to 6,500 AF/yr (for a total of up to 13,000 AF/yr for Phases I and II combined), from WID to Stockton that would be made available as a result of continued urban expansion of Stockton into areas presently served by WID, in order to replace water that was planned for diversion under the DWSP, but which is largely unavailable due to regulatory restrictions on Delta pumping, as discussed above. Under Phase II, for each acre of agricultural land retired from WID service and incorporated into community development associated with Stockton, three (3) AF/yr of additional water would be made available to Stockton for transfer. This additional water would only be available to Stockton during periods when WID has surplus water available for transfer. The water transferred would be made available to Stockton under WID's Mokelumne River appropriative water right holdings that were initiated in the late 1880's, as described above. Conservation measures occurring within WID, including changes in cropping patterns and conversion to drip irrigation by growers in the District, as well as conversion of land within the WID service area from agricultural to municipal and industrial (M&I) uses, makes the water available for transfer.

1.5 Review of Environmental Effects

The County's aforementioned road widening project widens an 8.2-mile section of Lower Sacramento Road, from Stockton to Lodi, from two lanes to four lanes with other improvements. In 1997, the County conducted an Initial Study of the Project ("County Initial Study"), and in 2000, adopted a Mitigated Negative Declaration for the project, ("Lower Sacramento Road Special Purpose Plan Initial Study/Negative Declaration"). Subsequently, the County decided to proceed initially with only a 2.3-mile portion of the 8.2-mile project, beginning at Pixley Slough and ending at Harney Curve. This reduced section includes the area where WID's Pixley Lateral crosses Lower Sacramento Road. In February 2011, the County completed and adopted an Addendum, "Lower Sacramento Road Improvements Project IS/MND Addendum, Pixley Slough to Harney Road, February 2011" ("Addendum") pursuant to the CEQA Guidelines §15164, to evaluate any environmental impacts of the reduced project in comparison with the impacts analyzed in the previous IS/MND.

The County's Initial Study contained an extensive analysis of the potential impacts on the environment resulting from the road-widening project, together with mitigation measures which reduce such impacts to less than significant. The County's Initial Study did not analyze the installation of a new four-foot pipeline at WID's Pixley Lateral crossing of Lower Sacramento Road, but it did analyze and examine the environmental impacts that would result from construction work in the widening of Lower Sacramento Road, which includes any impacts that would occur with the installation of the District's new four-foot pipeline at the Pixley Lateral crossing. Those impacts that could occur or result from the installation of the WID four-foot pipeline are described below, together with mitigation measures needed to reduce such impacts to less than significant.

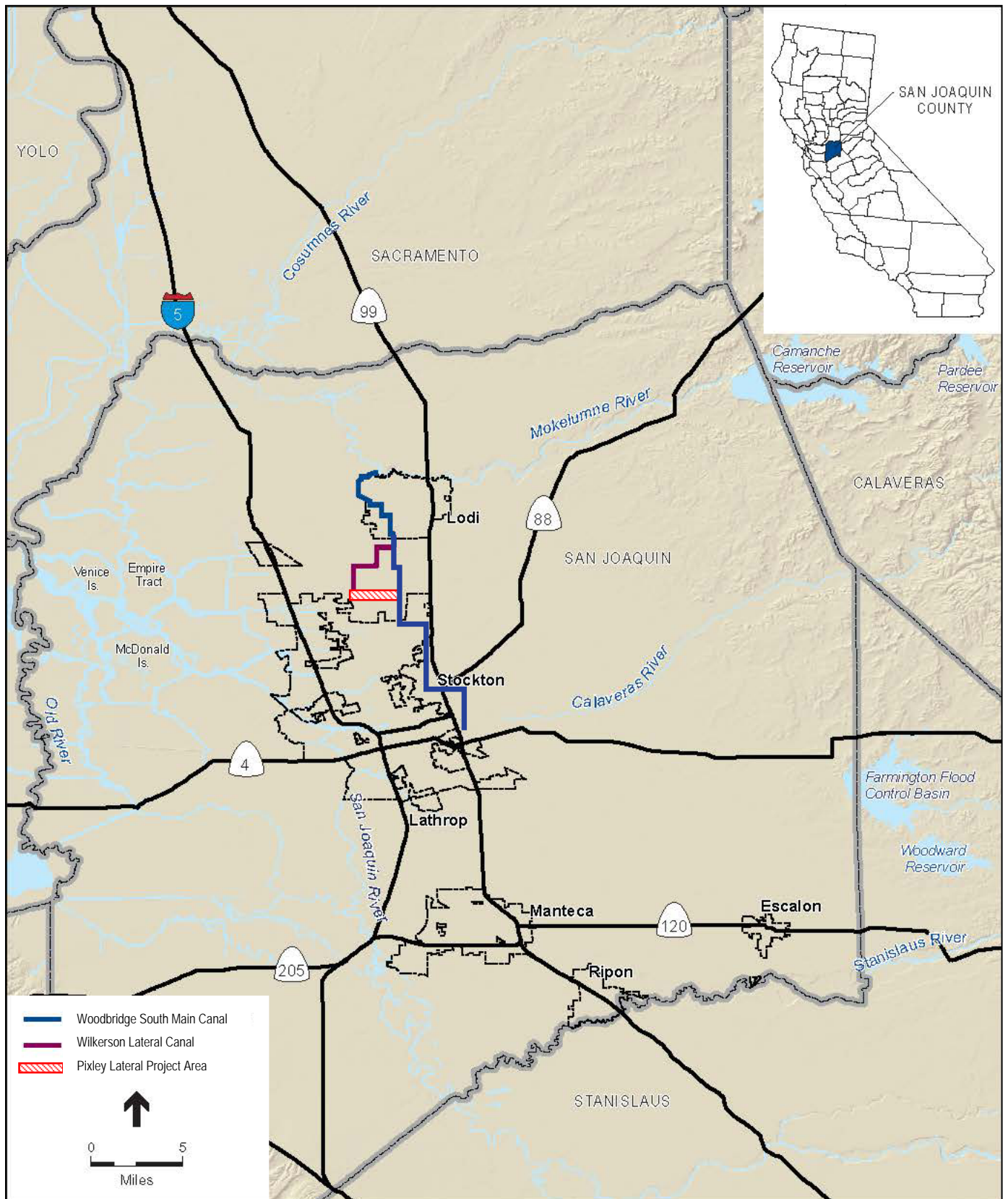


Figure 1: Pixley Lateral Pipeline Project Area

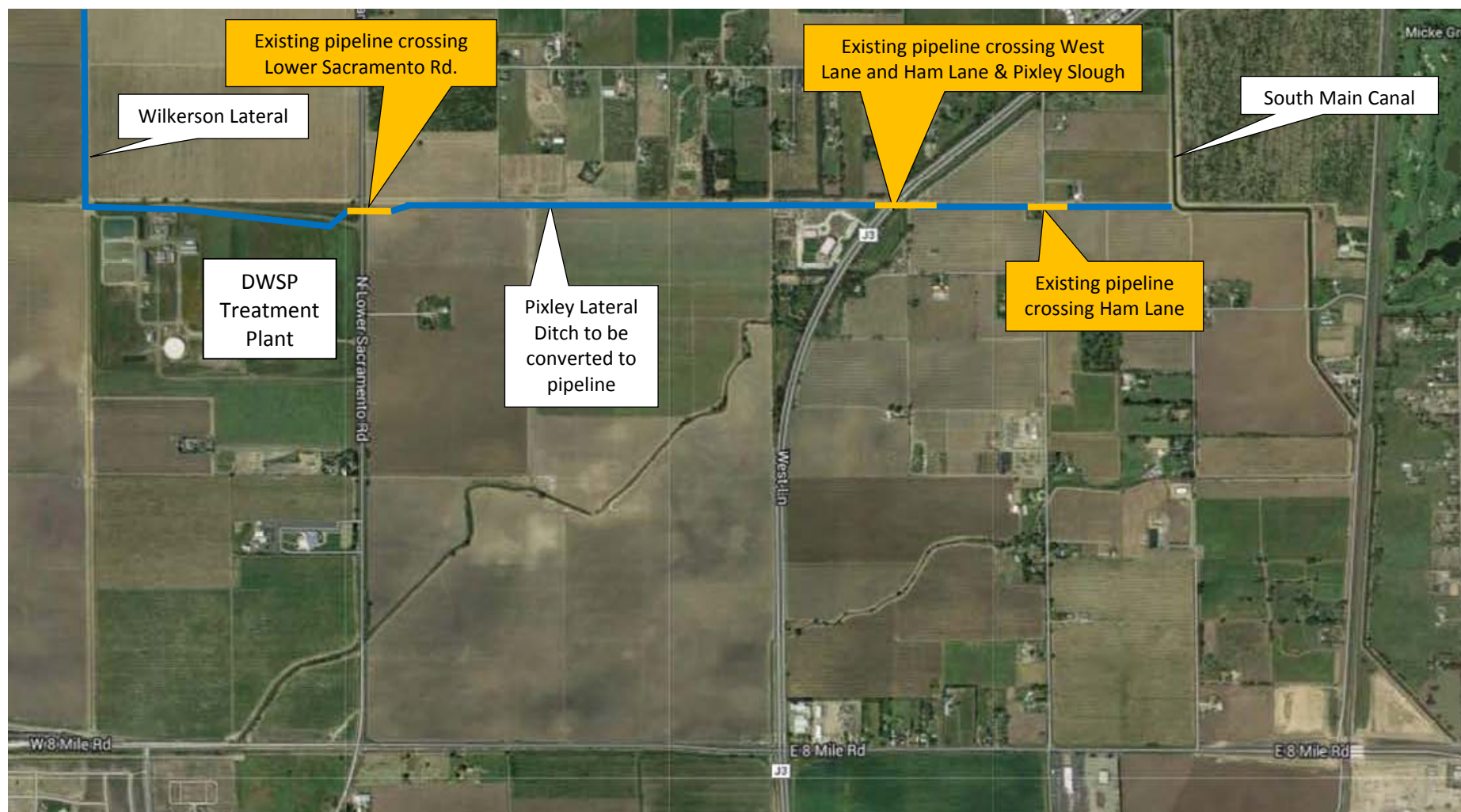


Figure 2: Project Site Description

In 2009, WID completed and adopted an Initial Study/Mitigated Negative Declaration (“Woodbridge Irrigation District-City of Stockton Water Transfer IS/MND”) for the project to transfer municipal water to the City of Stockton’s DWSP Treatment Plant. In preparation for a water transfer to the City of Stockton, this document exhaustively analyzed potential environmental impacts to the project area. For conveying water by WID to Stockton from March to July via the WID South Main Canal and the Wilkerson Lateral, directly to the DWSP Treatment Plant, where it is then treated for distribution.

Similarly, in 2013, WID completed and adopted a Mitigated Negative Declaration (“Woodbridge Irrigation District-installation of 4-foot ID replacement pipeline at Pixley lateral Crossing of Lower Sacramento Road MND”) for increasing the size of the Pixley Lateral piped section crossing only under Lower Sacramento Road. This project was completed in conjunction with the County’s widening of Lower Sacramento Road from two to four lanes. Elements from these previous IS/MNDs are relied upon in part, incorporated by reference, and are in addition to research exclusive to this Initial Study.

2.0 Environmental Checklist Form

Under CEQA Guidelines, the Environmental Checklist Form is provided in Appendix A, for use in the Initial Study. The following elements have been identified on that checklist and are explored here for further consideration.

2.1 Air Quality

Environmental Setting

The project area is located in the San Joaquin Valley Air Pollution Control District (SJVAPCD), and is characterized by hot, dry summers and cool winters with dense fog. The rainy season occurs from November through April. The SJVAPCD maintains a monitoring station in Stockton (Stockton-Hazeltown Monitoring Station) that monitors air quality and compliance with associated ambient standards (ESA, 2009).

Criteria Air Pollutants

Ozone

Ozone, the main component of photochemical smog, is primarily a summer and fall pollution problem. Ozone is not emitted directly into the air but is formed through a complex series of chemical reactions involving other compounds that are directly emitted. These directly emitted pollutants (also known as ozone precursors) include reactive organic gases (ROG) and nitrogen oxides (NOx). The time period required for ozone formation allows the reacting compounds to spread over a large area, producing a regional pollution problem. Ozone problems are the cumulative result of regional development patterns rather than the result of a few significant emission sources. Once formed, ozone remains in the atmosphere for one or two days. Ozone is then eliminated through reaction with chemicals on the leaves of plants, attachment to water droplets as they fall to earth (“rainout”), and absorption by water molecules in clouds that later fall to earth with rain (“washout”).

Carbon Monoxide

Ambient carbon monoxide concentrations are normally considered a local effect and typically correspond closely to the spatial and temporal distributions of vehicular traffic. Wind speed and atmospheric mixing also influence carbon monoxide concentrations. Under inversion conditions, carbon monoxide concentrations may be distributed more uniformly over an area that may extend some distance from vehicular sources. Carbon monoxide concentrations have declined dramatically in California due to existing controls and programs. Carbon monoxide concentrations are expected to continue declining due to the ongoing retirement of older, more polluting vehicles from the mix of vehicles on the road network.

Particulate Matter (PM10 and PM2.5)

PM10 and PM2.5 consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively. PM10 and PM2.5 represent fractions of particulate matter that can be inhaled into the air passages and the lungs and can cause adverse health effects. One common source of PM2.5 is diesel particulate emissions. Traffic generates particulate matter and PM10 emissions through entrainment of dust and dirt particles that settle onto roadways and parking lots. PM10 also is emitted by burning wood in residential wood stoves and fireplaces, open agricultural burning, and agricultural harvesting and processing. PM10 can remain in the atmosphere for up to seven days before gravitational settling, rainout and washout remove it.

Nitrogen Dioxide

NO₂ is a reddish brown gas that is a by-product of combustion processes. Automobiles and industrial operations are the main sources of NO₂. Aside from its contribution to ozone formation, nitrogen dioxide can increase the risk of acute and chronic respiratory disease and reduce visibility. NO₂ may be visible as a coloring component of a brown cloud on high pollution days, especially in conjunction with high ozone levels.

Toxic Air Contaminants (TACs)

Non-criteria air pollutants or TACs are airborne substances that are capable of causing short-term (acute) and/or long-term (chronic or carcinogenic) adverse human health effects. TACs include both organic and inorganic chemical substances, and may be emitted from many common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes approximately 200 compounds, including particulate emissions from diesel-fueled engines.

Diesel Particulate Matter (DPM)

Diesel particulate matter (DPM) is the most complex of diesel emissions. Diesel particulates, as defined by most emission standards, are sampled from diluted and cooled exhaust gases. This definition includes both solids and liquid material that condenses during the dilution process. The basic fractions of DPM are elemental carbon, heavy hydrocarbons derived from the fuel and lubricating oil, and hydrated sulfuric acid derived from the fuel sulfur. DPM contains a large portion of the polycyclic aromatic hydrocarbons (PAH) found in diesel exhaust. Diesel particulates include small nuclei mode particles of diameters below 0.04µm and their agglomerates of diameters up to 1µm. Ambient exposures to diesel particulates in California are significant fractions of total TAC levels in the State.

Odorous Emissions

Though offensive odors from stationary sources rarely cause any physical harm, they still remain unpleasant and can lead to public distress generating citizen complaints to local governments. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

Sensitive Receptors

Some land uses are considered more sensitive to air pollutants than others. Residences, hotels, schools, rest homes, and hospitals are generally more sensitive to air emissions than commercial and industrial land uses. Farmland is not generally considered to be sensitive to air emissions. However, rural residences would be considered sensitive receptors.

Air Quality Discussion

(c) Cumulatively Considerable Increase of Criteria Pollutants

The proposed project would involve use of heavy construction equipment (mostly diesel operated), delivery vehicles, and construction worker commute trips, which would result in emission of criteria air pollutants. Emissions of ROG, NO_x, and PM during construction would incrementally add to the regional atmospheric loading of ozone precursors during construction of project facilities. As discussed above, the Study Area is located within an area that is currently classified as nonattainment for ozone and PM. Additionally, construction of the project would also incrementally add to atmospheric loading of DPM, PAHs, carbon monoxide, and sulfur compounds. In order to ensure that construction-related emissions would not result in a cumulatively considerable impact to air quality, implementation of **Mitigation Measures AIR-1 and AIR-2** would be required to reduce this potential impact to less than significant (ESA, 2009).

Air Quality Mitigation

Measure AIR-1: The project plans and specifications should include the following measures that could reduce any such impacts from the pipeline construction:

- All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover.
- All onsite unpaved roads and offsite unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- When materials are transported offsite, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
- Suspend excavation and grading activity during periods of high wind.
- Limit area subject to excavation, grading, and other construction activity at any one time.

Measure AIR-2: During construction activities, the following feasible NO_x mitigation measures shall be employed, as relevant:

- Utilize low emission diesel-fueled construction equipment.

- Minimize idling time to five minutes when construction equipment is not in use, unless per engine manufacturer's specifications or for safety reasons more time is permitted or required.
- To the extent practicable, manage operation of heavy-duty equipment to reduce emissions such as maintain heavy-duty earthmoving, stationary, and mobile equipment in optimum running conditions.
- To the extent practicable, employ construction management techniques such as timing construction to occur outside the ozone season of May through October, or scheduling equipment use to limit unnecessary concurrent operation.

2.2 Biological Resources

Environmental Setting

The project area is located between the City of Lodi and the City of Stockton, CA, in San Joaquin County (Figure 1). In particular, the project area is located within Township 3 North, Range 6 East, Mount Diablo Base and Meridian, in parts of Sections 26, 27, 33, and 34, of the Lodi South, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map.

Land use immediately surrounding the project area is completely comprised of various types of agricultural lands including row crops, orchards, and vineyards, as well as some rural residential homes. Highly developed, urban areas lie beyond the agricultural lands, associated with the cities of Stockton and Lodi.

WID's existing Pixley Lateral Canal is used for conveying flows to current growers and, once converted to a pipeline, would be used for deliveries to the City of Stockton, as discussed in the project description. Construction activities related to the pipeline conversion would occur along this alignment. The scope of this biological resources section is limited to those portions of the facility used by WID for conveyance of water, and a construction right-of-way of approximately 35 feet wide.

Elevation, Soils and Hydrology

Terrain within the project area is nearly flat. Site elevation ranges from approximately 25 to 35 feet above mean sea level, with a slight/gentle slope towards the southwest. The hydrology and vegetation in the project area has been highly altered due to agricultural development, and as a result, surrounding areas are almost entirely disturbed.

Soils of the area are Rioblanco clay loam (USDA 1988), an alluvium originally derived from mixed rock sources. No rock of special plant habitat, such as pyroclastic formation, latite andesite formations or serpentinitic formations, is found in the study area.

Hydrology is that of an artificial water supply canal originally constructed through upland (non-hydric) farmland soils. The present canal is supplied irrigation water from the WID South Main Canal which derives its water supply from the Mokelumne River at the Woodbridge Dam.

One natural water course, Pixley Slough, crosses an existing pipeline of the Pixley Lateral to which connection will be made by the proposed pipeline project. The proposed project makes no hydrologic connection to water of the state or the United States. The historic USGS Quadrangles

of 1910 and 1941 (USGS 1910, 1941) show segments of the Pixley Lateral in place but not connected to the Pixley Slough. No other water-way is shown on the historic map.

Plant and Wildlife Habitat

Within the project right-of-way the vegetative habitat is heavily controlled. The canal banks and roadways are sprayed with herbicide and the wetland vegetation of the canal shoreline is periodically mowed. These strips of land which make up the canal structure are non-habitat.

Approximately 60% of the Pixley Lateral Canal length is inundated. The other 40% is roadside landscape of the DWSP treatment plant property. The canal water is screened against fish entry from the Mokelumne River at Woodbridge so that no fish species from the river are present.

The following are habitats within the Study Area and are based on the Wildlife Habitat Relationships (WHR) system (Mayer and Laudenslayer Jr. 1988).

Orchard-Vineyard surrounds the project site for approximately 65% of its length adjacent to the right-of-way. This is a managed habitat where tractors and vineyard workers are constantly manipulating the habitat. Wildlife species such as a variety of fruit-eating song-birds, California quail, ground squirrels, western gray squirrel, desert cottontail, coyote and raccoon take advantage of the fruit production as part of their foraging habitat. The OVN managers consider the fruit-eating wildlife species as agricultural pests and are forced to exert some control over their populations.

Urban is found at the large church complex and at the treatment plant location. The urban area makes up approximately 25% of the land adjacent to the right-of-way. The coast redwood is a common tree planted on these sites and lawn is a common groundcover. A variety of songbirds find habitat on urban along with the California quail, Canada geese, desert cottontail, mice, gopher and shrew. Landowners would consider an abundance of any of the wildlife species to be pests. Control of the mammal pests would be a common practice.

Eucalyptus habitat is found along approximately 10% of the land adjacent to the canal right-of-way. This can be a nesting habitat for raptors such as the red-shouldered hawk, the red-tailed hawk, great-horned owl, barn owl, crow and raven.

Wetlands and other waters of the state and of the United States are avoided by the project. Pixley Slough is 200 feet west of the end of the eastern pipe section. The western pipe section begins again on the west side of West Lane which separates the pipeline route from Pixley Slough. There are no other "waters" historically or currently within the project area (USACE 2007).

Biological Resources Discussion

a) Adverse Effects on Special Status Species

Based upon a reconnaissance-level site assessment conducted by Michael W. Skenfield, Biological and wetland Consultant on July 29, 2016, it was concluded that the site could potentially support some special-status species. This section provides a discussion of potential effects to special-status species and sensitive resources. The objective of a survey for Biological Resources is to map and describe possible habitats for special-status* plants and wildlife and to map and describe wetlands and streams.

**special-status species: Listed species under the Endangered Species Act and Species of Concern designated by the responsible agencies.*

Plants and Wildlife

All plant habitat within the project area is maintained by mowing or herbicide treatment. The project avoids nearby sensitive habitats in two locations: (1) Pixley Slough riparian, wetland and aquatic habitat by connecting to existing pipeline 200 ft. each side of slough; and (2) native tree and elderberry shrub habitat along existing ditch by moving pipeline alignment parallel to the access road to the DWSP property. There is **no habitat for special status plants, and therefore no mitigation required.**

In the following paragraphs, the following special-status wildlife were found to have potential habitat in the vicinity of the project:

Swainson's hawk (*Buteo swainsoni*). The California Department of Fish and Wildlife RAREFIND showed eight historic nest occurrences within a 2-mile radius of the project. No recorded sites are within ½ mile of the site. Three potential nest habitat sites were inspected. No nests were found. There is no nest habitat in the project site, nor is foraging habitat present. There is **no impact to the Swainson's hawk as a result of this proposed project.**

Giant Garter Snake (*Thamnophis gigas*). The San Joaquin Count ISMND states that Giant Garter Snakes are found to have habitat in the Bear Creek crossing of the Lower Sacramento Rd. and in the Pixley Slough. This snake's essential habitat components for prey and cover are (1) adequate water during snake's active period (early spring through mid-fall) to provide a prey base and cover; (2) emergent, herbaceous wetland vegetation such as cattails and bulrushes for escape cover and foraging habitat; (3) upland habitat for basking, cover and retreat sites; and (4) higher elevation uplands for cover and refuge from flood waters (USACE 1997). The essential components for the Giant Garter Snake can be found in the Pixley Slough. However, a four-foot-diameter concrete pipeline is already installed across the Slough. The pipeline begins 200-feet east of the Slough where the project pipeline will connect. Habitat within that 200-foot setback between the Slough and the canal end/pipeline entrance is dry, unvegetated farm roads. The snake would not be expected to leave the ideal habitat of the Slough to move 200 feet over adverse conditions of dry roadbed to enter the canal. Therefore, there is no habitat for Giant Garter Snake in the project site and **no impact to the species.**

Migratory Bird Nesting. Eucalyptus trees and Coast Redwood trees found in close proximity to the pipeline route are potential habitat for bird nesting activities. Any bridges or culverts across or within the canal can be substrate for mud nests. Each group of trees along the pipeline route was inspected for nesting activity. Since the survey was conducted at the end of July, most nesting activity would be evident with fledgling birds or abandoned nests. Neither fledgling birds nor nests were observed. The underside of one bridge-like gate structure provided no appropriate substrate for mud nests. Culverts were completely inundated and provided no space for nests. No migratory bird nest activity was observed during this survey. It is expected that the project will have **no impact on migratory bird populations.** Migratory Bird Habitat is present for possible nesting activities on the ground or in trees adjacent to the project during the breeding-nesting period of March 1 through August 15. This survey showed no nesting activities within or adjacent to the Project Area. For construction work in 2016 and up to March 2017,

there would be **no impact to migratory bird nesting activities and no mitigation required**, unless some construction activity was delayed and did overlap with the breeding season.

Biological Resources Mitigation

Mitigation Measure BIO-1: Avoidance Measures. Construction is planned during non-breeding season, however, in the event that construction conflicts with breeding season, WID will conduct preconstruction surveys by a qualified biologist. WID shall avoid all bird nest sites located in the project area during the breeding season (approximately March 1 through August 15) while the nest is occupied with adults and/or young. This avoidance could consist of delaying construction to avoid the nesting season. If construction cannot be delayed, avoidance shall include a no disturbance buffer zone around the nest site. The buffer zone shall be determined by the biologist and delineated by highly visible temporary construction fencing.

2.3 Cultural Resources

The 2009 Woodbridge Irrigation District-City of Stockton Water Transfer IS/MND for the project to transfer municipal water to Stockton, provided extensive review of this project area and the San Joaquin Valley as a whole. The following descriptions of the environmental setting are based on content contained in that report.

Environmental Setting

Geology and Physiographic Context

Regionally, the project area is located within the San Joaquin Valley of California's Great Central Valley geomorphic province, which contains an enormously thick sequence of sediments ranging in age from the Jurassic (210 to 145 million years ago) to Holocene (10,000 years ago to present). The San Joaquin Valley area contains Quaternary flood-basin deposits comprised mostly of Sierra granite, combined with river deposits containing sand, gravel, silt, and clay (ESA, 2009).

The San Joaquin Valley is characterized by low-elevation flatlands interspersed with river channels, creeks, and sloughs. According to the Natural Resources Conservation Service (NRCS), the soils in the project area include Acampo sandy loam and Tokay fine sandy loam. Both soils types are alluvium derived from granitic parent material and are well-drained with no frequency of flooding. The alluvial landform is mapped as the Modesto Formation, a younger Pleistocene unit consisting of sand silt and gravel derived from Riverbank and older formations. This landform has a very minimal likelihood for containing buried archaeological resources.

Natural Environment

The existing vegetation differs from those that were present during the prehistoric period in the Central Valley at large. Prior to the development of valley agriculture, marshy wetlands surrounding sluggish waterways such as the San Joaquin River, supported marshy or aquatic communities of tule, cottonwood, sycamore, and willow. Sparse oak groves occurred along some waterways and likely included interior live oaks and valley oaks thus providing a portion of the vegetal food sources utilized by prehistoric populations. Larger mammals such as black bear, black-tailed deer, mule deer, and mountain lion are now limited to the surrounding foothills and

mountain ranges. Tule elk and pronghorn, once common throughout the valley, now exist in limited locations around the state. The project area is currently in the midst of agricultural fields.

Ethnographic Setting

This portion of San Joaquin County was originally inhabited by the indigenous Northern Valley Yokuts. Northern Valley Yokuts territory is defined roughly by the crest of the Diablo Range on the west, and the foothills of the Sierra Nevada on the east. The southern boundary is located approximately where the San Joaquin River bends northward; the northern boundary is roughly half way between the Calaveras and Mokelumne Rivers. Population estimates for the Northern Valley Yokuts vary from 11,000 to more than 31,000 individuals. Populations were concentrated along waterways and on the more hospitable east side of the San Joaquin River. Principal settlements were located on the tops of low mounds on or near the banks of the larger watercourses. Settlements were composed of single family dwellings, sweathouses, and ceremonial assembly chambers. Dwellings were small and lightly constructed, semi-subterranean, and oval. Public structures were large and earth covered. Most Northern Valley Yokuts groups had their first contact with Europeans in the early 1800s, when the Spanish began exploring the interior of California. The gradual erosion of the Yokuts culture began during the mission period. Settlement in the San Joaquin Valley applied pressure to the native groups and altered the landforms and waterways of the valley. Many Yokuts transitioned to labor on farms and ranches, while others were settled on land set aside for them on the Fresno and Tule River Reserves.

Historic Period

San Joaquin County was one of the original counties of California, created in 1850 at the time of statehood. The county takes its name from the San Joaquin River. San Joaquin City, an agricultural settlement established in 1849 located near the San Joaquin/Stanislaus County border, was among the first permanent settlements in San Joaquin County. The project area has been used predominantly for agricultural purposes for at least the last 120 years. Important to the general region of the project area was the development of agricultural irrigation. In 1886, Byron Beckwith of Woodbridge, California, northeast of the project area, petitioned and received irrigation water rights to the Mokelumne River. Allen T. Covell was hired to engineer the canal system for the Woodbridge Canal and Irrigation Company, which resulted in the design of a three-main canal system; the North, West, and South Main Canals that span from the WID diversion on the Mokelumne River. By 1891 the Woodbridge canal system was operational. WID was established in 1924, gradually expanding the original Woodbridge Canal and Irrigation Company network to include 100 miles of irrigation canals (ESA, 2009). Deeds transferring right of way for the Pixley Lateral Canal within the project area to WID date predominantly between 1899 and 1928. The earliest available U.S. Geological Survey (USGS) Lodi quadrangle map on which the Pixley Lateral is visible is the 1910 map, but is not visible on the 1894 map, which is the next earliest. This lateral has been in use for agricultural purposes throughout its existence.

Cultural Resources Discussion

a) Historical Resources

The proposed project would not likely cause a significant impact to the eligibility of a historical resource. A records search of all pertinent survey and site data was conducted at the Central California Information Center (CCIC) at California State University, Stanislaus on August 26, 2016

(File No. 9974L). The records were accessed by utilizing the Lodi South USGS 7.5-minute quadrangle map in San Joaquin County. The file search included a review of CCIC maps for the specific project area and the immediate vicinity of the project area, and a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the *California Inventory of Historic Resources* (1976), the *California Historical Landmarks* (1990), the California Points of Historical Interest listing (May 1992 and updates), the Directory of Properties in the Historic Property Data File (HPDF), the Archaeological Determinations of Eligibility (ADOE) (Office of Historic Preservation current electronic files dated 3/20/2014), the *Survey of Surveys* (1989), the Caltrans State and Local Bridges Inventory, GLO Plats, and other pertinent historic data available at the CCIC for each specific county.

The specific project area has not been subject to previous investigations. However, there have been four investigations within the vicinity of the project area. One previous aforementioned survey (ESA, 2007, *Stockton Delta Water Supply Project Cultural Resources Inventory Report*) included portions of the project area. No cultural resources were recorded during that survey.

The records search noted that a segment of the Woodbridge Irrigation Canal, a historic structure that transects the eastern portion of the project area, is listed in the HPDF as P-39-004236, but is not eligible for listing on the NRHP. Similarly, while the Pixley Lateral Canal dates to the early 20th Century, it lacks association with historic events or individuals, necessary for consideration as a historical resource. No evidence has been identified associating the canal with significant events or persons in local or state history, nor does it reflect distinctive characteristics of a type, period, region, or method of construction, nor possesses high artistic values; nor is it likely to yield information important in prehistory or history. Therefore, the proposed project would have no significant direct or indirect impacts on historic architectural resources. No mitigation would be required.

b) Archaeological Resources

No prehistoric or historic archaeological resources have been noted within the project area, nor have any been formally reported to the CCIC. However, prehistoric archaeological resources have been reported within a $\frac{1}{4}$ - $\frac{1}{2}$ - mile radius of the project area, exhibiting evidence of Native America occupation within this part of San Joaquin County.

The project site is located in the vicinity of some seasonal waterways. Much of the archaeological literature concerning this region has supported the notion that Central Valley peoples maintained large populations along the banks of major waterways, wetlands, and streams. In addition, much of the archaeological record for the region has likely been buried beneath the vast alluvial deposits by erosion and depositional processes indicative of the valley, especially over the last 9,000 years (ESA, 2009). Consequently, archaeological materials can be revealed unexpectedly during excavation throughout the Central Valley. The previously extensively disturbed project footprint consists of a narrow irrigation ditch making the proposed project not likely to cause a significant impact to the eligibility of an archaeological resource. The proposed project, therefore, would result in a **less-than-significant** impact on archeological resources with implementation of **Mitigation Measure CUL-1**.

(c) Paleontological Resources

Paleontological resources are the fossilized evidence of past life found in the geologic record. Despite the tremendous volume of sedimentary rock deposits preserved worldwide,

preservation of plant or animal remains as fossils is an extremely rare occurrence. Because of the infrequency of fossil preservation, fossils particularly vertebrate fossils are considered to be nonrenewable resources. Because of their rarity, and the scientific information they can provide, fossils are considered highly significant records of ancient life. No known paleontological resources or unique geologic features exist within the project area. Therefore, the proposed project is not likely to destroy, either directly or indirectly, a unique paleontological resource or site, or geological feature. As described in **Mitigation Measure CUL-1**, if such a resource should be encountered during construction, work would stop until the resource can be evaluated and a determination made of its significance and need for recovery, avoidance, and/or mitigation. Therefore, the proposed project would result in a **less-than-significant** impact on paleontological resources or unique geologic features.

(d) Human Remains

Archival research conducted during the Initial Study for the Stockton water transfer in 2009, described CA-SJO-32, located within a quarter-mile of the aforementioned project area, as a destroyed burial site where skeletons had been noted during scraping operations. This site was described as being destroyed by cultivation with no other cultural constituents (ESA, 2009). No archaeological resources were found during the survey.

The previously disturbed project footprint of the Pixley Lateral consists of a narrow irrigation ditch, making the proposed project not likely to cause a significant impact to the eligibility of an archaeological resource. The project site and surrounding area has historically been used for agriculture, which reduces the probability of undiscovered human remains. In the unlikely event that human remains are discovered, work within the area will be stopped and San Joaquin County Coroner will be notified immediately. Work will only resume after the investigation and in accordance with any requirements and procedures imposed by the San Joaquin County Coroner. In the event that the bone most likely represents a Native American interment, the Native American Heritage Commission will be notified so that the most likely descendants can be identified and appropriate treatment can be implemented. To ensure a **less-than-significant** impact in the event of an accidental discovery, **Mitigation Measure CUL-2**, in conjunction with **Mitigation Measure CUL-1**, shall be implemented.

Cultural Resources Mitigation

Mitigation Measure CUL-1: Cease Work if Prehistoric, Historic, Paleontological or Subsurface Cultural Resources are Discovered During Ground-Disturbing Activities. If cultural resources are encountered, all activity in the vicinity of the find shall cease until it can be evaluated by a qualified archaeologist and a Native American representative. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones (ESA, 2009). Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. If the archaeologist and Native American representative determine that the resources may be significant, they will notify the Applicant and the County and will develop an appropriate treatment plan for the resources. The archaeologist shall consult with Native American monitors or other appropriate Native American representatives in determining appropriate treatment for

unearthed cultural resources if the resources are prehistoric or Native American in nature. In considering any suggested mitigation proposed by an archaeologist and Native American representative in order to mitigate impacts to cultural resources, the project proponent will determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) may be initiated. Work may proceed on other parts of the project area while mitigation for cultural resources is being carried out.

Mitigation Measure CUL-2: Halt Work if Human Skeletal Remains are identified During Construction. If human skeletal remains are uncovered during project construction, the project proponent will immediately halt work, contact the San Joaquin County coroner to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. If the County coroner determines that the remains are Native American, the project proponent will contact the NAHC, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641). Per Public Resources Code 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

2.4 Hydrology & Water Quality

WID's network of canals and other water conveyance infrastructure serve only as water supply delivery for WID's service area. WID does not permit introduction of agricultural return flows, agricultural drainage, flood flows, or other inflows of water to its water conveyance infrastructure. The only source of water to WID's delivery system to Stockton is Mokelumne River water. The quality of this water delivered to Stockton would not be influenced by any other water sources. The continued diversion of water from the Mokelumne River under the proposed project, would not result in changes in flow patterns and therefore would not result in a reduction in water quality along the Mokelumne River.

Erosion resulting from soil disturbances associated with grading and construction can be washed into site drainages and nearby waterways, with the potential to affect water quality from increased siltation and turbidity. WID's proposed project is classified as a Linear Underground Project (LUP) that encompasses approximately 3.8 acres of area, including construction activities such as material storage, pipe laying equipment, etc.

Hydrology & Water Quality Discussion

(a) Water Quality Standards

Construction of the proposed project, would involve the use of heavy machinery and disturbance to surface sediment layers. The use of heavy machinery, including trucks and an excavator, along with the associated upset of surface sediment layers, could result in the migration of pollutants into surface waters. Potential pollutants associated with construction activities include oils, greases, fuels, hydraulic fluid, antifreeze, and other fluids associated with

heavy machinery, as well as sediment. These water quality pollutants could become entrained in stormwater and result in pollution of natural waters on site or downstream. In order to reduce this potential impact to less than significant levels, implementation of **Mitigation Measure HYD-1** would be required.

(c) and (d) Erosion and Stormwater Runoff

Construction of the proposed project, including canal maintenance, regrading of dirt roads, construction of the WTP turnout structure, installation of fencing, replacement of culverts, and other activities could result in changes in drainage patterns on and off-site. These changes could result in channeling of stormwater into areas not designed to receive stormwater flows, potentially resulting in erosion and discharge of sediments and excess flows to areas on-site or downstream of the proposed project. Specifically, use of construction equipment, including graders, bulldozers, backhoes, and other heavy equipment could disturb surface sediments, remove vegetation, and drainage patterns, as applicable. In the event of precipitation during the construction period, disturbed sediments and soils could become entrained in stormwater flow, resulting in on-site erosion and sedimentation, and off-site sedimentation. Implementation of **Mitigation Measure HYD-1** would be required to ensure that substantial erosion, siltation, and migration of stormwater flows into undesired areas would not occur. Operation for the proposed water transfer, including withdrawal of water from the Mokelumne River and conveyance along the indicated canals, would not result in any change in the course of a river or drainage. Potential drainage from the Pixley Lateral right of way could result in altered drainage patterns and, potentially, localized flooding, erosion, or sedimentation. Implementation of **Mitigation Measure HYD-2** would be required to ensure that increases in stormwater runoff, as well as associated erosion and sedimentation during operation of the proposed project, would not occur. **Impact Significance after Mitigation:** Less than Significant.

(e) Drainage System Capacity

Construction and operation of the proposed project could result in changes to drainage and water quality as discussed under impacts (a), (c), and (d), above. If improperly managed, changes in drainage patterns or increases in impervious surfaces could affect stormwater drainage systems, or provide polluted runoff, especially during construction. Implementation of **Mitigation Measures HYD-1 and HYD-2** would be required to reduce the potential for increases in stormwater flows from project facilities, and would reduce the potential for polluted runoff to affect receiving water bodies. **Implement Mitigation Measures HYD-1 and HYD-2 Impact Significance after Mitigation:** Less than Significant.

(f) Other Water Quality Degradation

Implementation of the proposed project would result in continued diversion of water from the Mokelumne River at WID's turnout structure. As previously discussed, these diversions would not result in a change in flows along the Mokelumne River, and would not result in a change in Mokelumne River water quality. Potential water quality impacts associated with construction and runoff from impervious surfaces are addressed under Impacts (a) and (c) above. This impact would be less than significant.

Hydrology & Water Quality Mitigation

Mitigation Measure HYD-1. To control and manage stormwater runoff during construction, including polluted runoff, the project proponent shall prepare and implement a SWPPP for all

construction-related activity in support of the proposed project. The SWPPP shall identify pollutant sources that may affect the quality of stormwater discharge and shall require the implementation of Best Management Practices (BMPs), as relevant, to reduce pollutants in storm water discharges. BMPs may include, but would not be limited to:

- Excavation and grading activities in areas with steep slopes or directly adjacent to open water shall be scheduled for the dry season only (April 30 to October 15), to the extent possible. This will reduce the chance of severe erosion from intense rainfall and surface runoff.
- If excavation occurs during the rainy season, storm runoff from the construction area shall be regulated through a storm water management/erosion control plan that shall include temporary onsite silt traps. Stockpiles of loose material shall be covered and runoff diverted away from exposed soil material. If work stops due to rain, a positive grading away from slopes shall be provided to carry the surface runoff to areas where flow would be controlled, such as temporary silt basins, as relevant.
- Temporary erosion control measures, such as fiber rolls, staked straw bales, detention basins, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover, shall be provided until perennial revegetation or landscaping is established and can minimize discharge of sediment into nearby waterways. For construction within 500 feet of a drainage or natural waterway, appropriate erosion control measures shall be placed upstream of the waterway.
- As relevant, sediment shall be retained on site by sediment basins, traps, or other measures.
- No disturbed surfaces shall be left without erosion control measures in place during the rainy season, from October 15 through April 30.
- Erosion protection shall be provided on all cut-and-fill slopes. Revegetation shall be facilitated by mulching, hydro-seeding, or other methods, and shall be initiated as soon as possible after completion of grading and prior to the onset of the rainy season (by October 15).
- As relevant, vegetative cover shall be established on the construction site as soon as possible after disturbance.
- Equipment shall be in proper working order to reduce accidental fluid leaks and other releases of construction-related fluids and pollutants.

Mitigation Measure HYD-2. In order to prevent conveyance of stormwater into areas not capable of containing or conveying drainage flows, WID shall ensure that all runoff from the project site is channeled into existing surface water drainages or other agricultural drainage facilities. Runoff shall be channeled into drainage facilities having sufficient capacity to convey stormwater flows without resulting in flooding on-site or downstream.

2.5 Noise

Noise Principles and Descriptors

Noise is defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level that is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound. Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency

of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude. When all the audible frequencies of a sound are measured, a sound spectrum may be plotted, consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum. The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting, and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements.

Effects of Noise on People

The effects of noise on people can be placed into three categories:

- Subjective effects of annoyance, nuisance, dissatisfaction;
- Interference with activities such as speech, sleep, learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no complete satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so called "ambient noise" level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur for a noise source:

- except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- a change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- a change of 10-dBA is subjectively heard as approximately a doubling in loudness, and can cause adverse response.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. The human ear perceives sound in a non-linear fashion; hence the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA the combined sound level would be 53 dBA, not 100 dBA (ESA, 2009).

Noise Discussion

(a) Exceedance of Noise Standards; Temporary Increases in Ambient Noise Levels

Noise generated during the operation period would be limited to maintenance and surveillance activities and would not increase in intensity or duration over existing conditions and is

considered a less-than-significant. The aqueduct delivery system would be entirely gravity-feed; operation of pumps would not be required in support of the water deliveries made under the proposed project. Construction of the proposed project would result in temporary and intermittent noise increases during the construction period. Construction-related noise levels within the project area would fluctuate depending on the particular type, number, and duration of use for construction equipment that would be employed during the construction of the proposed pipeline. In addition to noise generated within construction zones, haul trips for construction material would raise ambient noise levels along haul routes, with intensity depending upon the number of trips made and types of vehicles used. In general, the intensity of construction noise would depend upon how much noise would be generated by construction equipment being utilized, the distance between construction activities and the nearest noise-sensitive uses, the existing noise levels at those uses, and the time of day during which construction activities would occur. For proposed project construction, noise levels generated would be expected to be up to 89 dBA at 50 feet, assuming no noise mitigation features. This would include operation of bulldozers, backhoes, forklifts, loaders, compactors, rollers, trucks, scrapers, excavators, trenchers, and water trucks. Use of this equipment would be consistent with construction of water conveyances such as pipelines or channels when located in low-lying areas. Implementation of **Mitigation Measure NOI-1** would be required in order to ensure that potential increases in noise levels are minimized, and therefore ensure that associated impacts are less than significant.

Noise Mitigation

Mitigation Measure NOI-1: The applicant shall implement procedures to reduce noise generation from project construction activities. Typical noise control procedures include the following:

- Require construction contractors to comply with the construction hours and days limitations established in local noise ordinances. Night-time construction would require approval from local jurisdictions.
- Require all construction contractors to locate fixed construction equipment (e.g., compressors and generators) as far as possible from noise-sensitive receptors.
- Equipment used in the construction of individual projects and management actions shall be muffled and maintained in good operating condition. Internal combustion engine-driven equipment shall be fitted with intake and exhaust mufflers that are in good condition.
- Pile driving is not anticipated to be required for project construction. However, in the unlikely event that pile driving is required for facility construction, the contract specifications for those projects shall incorporate the following requirements:
 - Wherever possible, sonic or vibratory pile drivers will be used lieu of impact pile drivers.
 - Wherever feasible, pile holes will be pre-drilled to reduce potential noise and vibration impacts.

Additional noise attenuating measures include changing the location of stationary construction equipment and/or staging areas; notifying adjacent residences and nearby sensitive receptors in advance of construction work; shutting off idling equipment; rescheduling construction activities; requiring on-going construction noise monitoring to assure adherence to City/County construction equipment standards; and/or installing temporary barriers around stationary construction noise sources.

3.0 Summary

Woodbridge Irrigation District's Pixley Lateral Canal extends west approximately 10,000 feet from WID's South Main Canal to the City of Stockton's Delta Water Supply Project Treatment Plant. Currently, with the exception of piped roadway crossings, the majority of Pixley Lateral is an unlined, open-ditch canal serving growers between the South Main Canal and Lower Sacramento Road. This project proposes piping the currently open majority of the Pixley Lateral Canal.

The District's purpose in converting the Pixley Lateral Canal to a pipeline is to provide a redundant or alternate route (other than the Wilkerson Lateral to the north, which is currently the sole supply conveyance) for the delivery of water to Stockton's Treatment Plant, all while continuing to serve existing growers along the Pixley Lateral.

As described in the environmental checklist form (attached as Appendix A) and initial study, the environmental factors reviewed have the potential to be affected by this project. Each was analyzed in a discussion centered within the project context, followed by appropriate mitigation measures, and project revisions that avoid any and all significant impacts. No special natural habitat was identified in the project area, nor were any historic or archaeological sites. Any impacts to air, water, and noise, in the project area, would simply be a temporary result of construction, the effects of which would be mitigated.

The identified mitigation measures will be incorporated into the plans and specifications for the installation of the four-foot RCP pipeline conversion of WID's Pixley Lateral. Woodbridge Irrigation District Board of Directors determines that the installation of the pipeline within the existing and pre-disturbed Pixley Lateral alignment could have a significant effect on the environment, but that there will not be a significant effect in this case because of the mitigation measures that have been adopted and included in the project. As a result, the adoption of a Mitigated Negative Declaration for the project is appropriate and recommended.

References**Data Bases and Maps**

USDA 1988. Soil Conservation Service Soil Survey of San Joaquin County.

USGS 1910. U.S. Geological Survey 7.5' Quadrangle, Castle, California.

USGS 1941. U.S. Geological Survey 7.5' Quadrangle, Lodi, California.

Publications

Mayer and Laudenslayer, Jr. 1988. A guide to wildlife habitats of California. California Department of Forestry, Sacramento, CA. October 1988.

USACE. 2007 (in prep.) U. S. Army Corps of Engineers "Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region," J.S. Wakeley, R. W. Lichvar, and C. V. Noble, eds., Technical Report, U. S. Army Engineer Research and Development Center, Vicksburg, MS.

San Joaquin County, 2000. *Lower Sacramento Road Special Purpose Plan Initial Study/Negative Declaration*

San Joaquin County, 2011. *Lower Sacramento Road Improvements Project IS/MND Addendum, Pixley Slough to Harney Road*

ESA, 2007. *Stockton Delta Water Supply Project Cultural Resources Inventory Report*

ESA, 2009. *Woodbridge Irrigation District-City of Stockton Water Transfer IS/MND*



WID, 2012. *Woodbridge Irrigation District Installation of Four-Foot Pipeline at Pixley Lateral Crossing of Lower Sacramento Road IS/MND*

APPENDIX A
ENVIRONMENTAL CHECKLIST FORM

Appendix G

Environmental Checklist Form

NOTE: The following is a sample form and may be tailored to satisfy individual agencies' needs and project circumstances. It may be used to meet the requirements for an initial study when the criteria set forth in CEQA Guidelines have been met. Substantial evidence of potential impacts that are not listed on this form must also be considered. The sample questions in this form are intended to encourage thoughtful assessment of impacts, and do not necessarily represent thresholds of significance.

1. Project title: Pixley Lateral Pipeline
2. Lead agency name and address:
Woodbridge Irrigation District
18750 N. Lower Sacramento Road
PO Box 580 
3. Contact person and phone number: Anders Christensen, Manager (209) 625-8438
4. Project location: Pixley Lateral Canal from Main Canal to Stockton Water Treatment Plant
5. Project sponsor's name and address:
Woodbridge Irrigation District
18750 N. Lower Sacramento Road
PO Box 580 
6. General plan designation: Agricultural 7. Zoning: Agricultural
8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)
WID will convert the currently open and unlined Pixley Lateral Canal to a 4 foot inside diameter concrete pipeline from the South Main Canal, west 10,000 feet to City of Stockton's Delta Water Supply Project Treatment Plant, for a consistent and clean supply to the Treatment Plant for the City of Stockton's municipal use. All work to take place in existing right-of-way.
9. Surrounding land uses and setting: Briefly describe the project's surroundings:
The project is surrounded by agricultural and very low-density residential land uses.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)
San Joaquin County Public Works

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology /Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology / Water Quality |
| <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise |
| <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Signature

Date

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology /Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology / Water Quality |
| <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise |
| <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

 Signature

 Date

 Signature

 Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

SAMPLE QUESTION

Issues:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. -- Would the project:				
a) Convert 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 use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Production (as defined by Government Code section 51104(g))?				
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
de) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IV. BIOLOGICAL RESOURCES -- Would the project:				
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 local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VII. GREENHOUSE GAS EMISSIONS -- Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VIII. HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
for people residing or working in the project area?				<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IX. HYDROLOGY AND WATER QUALITY --				
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
X. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XI. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XII. NOISE -- Would the project result in:				
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XIII. POPULATION AND HOUSING -- Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XIV. PUBLIC SERVICES

a) Would the project 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 or other performance objectives for any of the public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XV. RECREATION --

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XVI. TRANSPORTATION/TRAFFIC -- Would the project:

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XVII. UTILITIES AND SERVICE SYSTEMS -- Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
could cause significant environmental effects?				<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE --				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Note: Authority cited: Sections 21083, 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080, 21083.05, 21095, Pub. Resources Code; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.