

# CHAPTER 2

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## Summary

### 2.1 Introduction

As provided by Section 15123 of the California Environmental Quality Act (CEQA) Guidelines (CEQA *Guidelines*), this chapter summarizes the proposed Bayview Estates Residential Project (“Project”) and its environmental consequences. This chapter serves as a stand-alone summary of the proposed Project described in Chapter 3 (*Project Description*), the impacts and mitigation measures discussed in Chapter 4 (*Environmental Setting, Impacts, and Mitigation Measures*), and the alternatives analysis presented in Chapter 5 (*Alternatives*).

This Draft Environmental Impact Report (EIR) has been prepared to evaluate the anticipated environmental effects of the Project in conformance with the provisions of CEQA and the CEQA *Guidelines*. Contra Costa County (County) is the public agency that has the principal responsibility for implementing the Project and is therefore the Lead Agency for the EIR.

### 2.2 Project Overview

The Project sponsor, Discovery Builders, Inc., proposes to develop a residential subdivision located south of Central Avenue and east of Interstate 680 (I-680), in the Vine Hill/Pacheco Boulevard area of unincorporated Contra Costa County. The Project site is 78.3 acres that currently consists of a single vacant parcel (Assessor’s Parcel Number 380-030-046). The proposed Project involves:

1. A Vesting Tentative Map to create parcels for development of the project components listed below;
2. Development of 144 single-family residential units and associated internal roadways;
3. Approximately 46.5 acres of open space, marshes and undeveloped land, including:
  - The preservation of approximately 20.1 acres of the upper hill area (Vine Hill);
  - The preservation of approximately 19.9 acres of the lower site areas (containing wetlands, coastal salt marsh, freshwater marsh, open water, and alkali meadow);
  - The development of a new 2.0-acre stormwater treatment basin;
4. Development of an approximately 4.5-acre private neighborhood park;
5. Substantial grading of the lower hill area and limited grading of the upper hill area in order to balance cut and fill earthwork volumes;

6. Extension of new utility lines to and throughout the Project site, and the repair and upgrade of existing off-site utility lines; and
7. Improvement of two existing off-site roadways, Central Avenue and Palms Drive, to better accommodate two lanes of moving vehicular traffic to/from the Project site.

The Project proposes amendments to the existing *Contra Costa County General Plan* (General Plan). Specifically, the Project seeks to amend the existing General Plan land use map to change the existing Heavy Industrial (“HI”) land use designation on the Project site to the Single Family Residential-High Density (“SH”), and Open Space (“OS”) land use designations. The Project would also amend the existing General Plan to modify existing land use policy language regarding the Vine Hill/Pacheco Boulevard area. For zoning, the Project seeks to reclassify the existing Heavy Industrial (“H-I”) zoning designation on the Project site to the Planned Unit District (“P-1”) designation.

The Project involves a grading plan that would alter the existing topography in specific areas of the Project site and would clear approximately 1,500 cubic yards (“cy”) of vegetation, almost all of which would be reused on site. The total on-site balance of cut and fill grading would involve approximately 900,000 cubic yards being moved. The proposed Project would use existing and available water and wastewater treatment and off-site transmission/conveyance capacity. Some existing utility lines would require repair and/or upgrade to serve the proposed development.

The Project is anticipated to be developed in up to three phases, generally from west to east across the site, with an anticipated grading start date in 2021 and last house completion date in 2024.

## 2.3 Environmental Impacts and Mitigation Measures

Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, discusses each potential environmental impact and recommended mitigation measures identified for the proposed Project. **Table 2-1, Summary of Impacts, Mitigation Measures and Residual Effects**, at the end of this chapter lists, by environmental topic, (1) each impact statement, noting the level of impact (e.g. “potentially significant”) prior to the implementation of any recommended mitigation measure(s); (2) each mitigation measure; and (3), the residual level of the Project’s impact after the mitigation measure(s) is/are implemented (“less than significant” or “significant and unavoidable”).

### 2.3.1 Significant and Unavoidable Impacts

As indicated in Table 2-1, the Draft EIR determined that the Project would result in significant and unavoidable impacts related to Project and cumulative vehicle miles traveled (VMT) per Project resident, even with implementation of a feasible mitigation measure to develop and implement a Transportation and Parking Demand Management (TDM) Plan (Impacts TRF-3 and C-TRF-8; Mitigation Measures TRF-3).

**TABLE 2-1  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.1 Aesthetics</b>		
<p><b>Impact AES-1:</b> Construction of the Project would create temporary aesthetic nuisances associated with Project construction and grading activities. (Criteria a and c) (Potentially Significant)</p>	<p><b>Mitigation Measure AES-1:</b> The Project shall incorporate into all construction contracts and ensure implementation of the following measures:</p> <ol style="list-style-type: none"> <li>1) To the extent feasible, during all site preparation and exterior construction activities, a screened security fence shall be placed and maintained around the perimeter of the Project site abutting residential areas. Visual screening along Central Avenue and bordering the perimeter of the property abutting residential areas shall be placed and maintained and removed upon completion of construction work. The County shall determine the appropriate height, material and final placement of such fencing, as appropriate and effective given the relative change in elevation and viewpoints to the site.</li> <li>2) Construction staging areas shall be located in the interior of the Project site, away from the property boundary and remain clear of all trash, weeds and debris etc. Construction staging areas may include other areas of the Project site when necessary, but shall be located away from adjacent properties and I-680 to minimize visibility from public view to the extent feasible.</li> </ol>	Less Than Significant
<p><b>Impact AES-2:</b> The Project would not have a substantial adverse effect on a scenic vista or adversely affect scenic resources along any designated scenic highway. (Criterion b) (Less than Significant)</p>	None required	
<p><b>Impact AES-3:</b> The Project could alter the existing visual character of the Project site, but would not substantially degrade the existing visual quality of the site and its surroundings. (Criteria a and c) (Less than Significant)</p>	None required	
<p><b>Impact AES-4:</b> The Project would introduce new sources of light and glare onto the Project site and increase ambient light in the vicinity. (Criterion d) (Less than Significant)</p>	None required	
<p><b>Impact C-AES-1:</b> The Project, in conjunction with cumulative development, would not result in a cumulative aesthetics impact related to scenic vistas and resources, or visual character and visual quality. (All Criteria) (Less than Significant)</p>	None required	
<b>4.2 Air Quality</b>		
<p><b>Impact AIR-1:</b> The Project could conflict with or obstruct implementation of the applicable air quality plan. (Criterion a) (Less than Significant)</p>	None required	

**TABLE 2-1 (CONTINUED)  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.2 Air Quality (cont.)</b>		
<p><b>Impact AIR-2:</b> Emissions from construction and operation of the Project would result in increased emissions of criteria air pollutants and contribute to existing air quality violations (Criteria b and c) (Potentially Significant)</p>	<p><b>Mitigation Measure AIR-1: Best Management Practices for Controlling Particulate Emissions.</b> The Project applicant shall implement the following BAAQMD Best Management Practices for particulate control. These measures will reduce particulate emissions primarily during soil movement, grading and demolition activities but also during vehicle and equipment movement on unpaved areas.</p> <ol style="list-style-type: none"> <li>1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.</li> <li>2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.</li> <li>3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.</li> <li>4. All vehicle speeds on unpaved roads shall be limited to 15 mph.</li> <li>5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.</li> <li>6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, § 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.</li> <li>7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in accordance with manufacturer's specifications prior to operation.</li> <li>8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.</li> </ol>	<p>Less than Significant</p>
<b>4.2 Air Quality (cont.)</b>		
<p><b>Impact AIR-3:</b> Construction of the Project could increase emissions of toxic air contaminants (TACs), and increase health risks for nearby residents, and Project operations could expose sensitive receptors to substantial pollutant concentrations including toxic air contaminants and increase health risks for existing and proposed residents. (Criterion d) (Potentially Significant)</p>	<p><b>Mitigation Measure AIR-2: Enhanced Exhaust Emissions Reduction Measures.</b> The applicant shall implement the following measures during construction to further reduce construction-related exhaust emissions:</p> <p>All off-road equipment greater than 25 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements:</p> <ol style="list-style-type: none"> <li>1. Where access to alternative sources of power are available, portable diesel engines shall be prohibited; and</li> <li>2. All off-road equipment shall have:             <ol style="list-style-type: none"> <li>a. Engines that meet or exceed either USEPA or CARB Tier 3 off-road emission standards, and</li> </ol> </li> </ol>	<p>Less than Significant</p>

**TABLE 2-1 (CONTINUED)**  
**SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.2 Air Quality (cont.)</b>		
<b>Impact AIR-3 (cont.)</b>	b. Engines that are retrofitted with a CARB Level 3 Verified Diesel Emissions Control Strategy. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such are available.	
<b>Impact AIR-4:</b> The Project would locate sensitive receptors near existing sources of objectionable odors. (Criterion e) (Less than Significant)	None required	
<b>Impact C-AIR-1:</b> The Project, in combination with past, present, and reasonably foreseeable future development of cumulative projects would contribute to cumulative regional air quality impacts. (Criteria b and c) (Potentially Significant)	<b>Mitigation Measure AIR-1</b> (Best Management Practices for Controlling Particulate Emissions (see Impact AIR-2))	Less Than Significant
<b>Impact C-AIR-2:</b> The Project, in combination with past, present, and reasonably foreseeable future development of cumulative projects would contribute to cumulative health risk impacts on sensitive receptors. (Criterion d) (Less than Significant)	None required	
<b>4.3 Biological Resources</b>		
<b>Impact BIO-1:</b> Construction of the Project could have a substantial adverse effect, either directly or through habitat modifications, on special-status plant species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service. (Criterion a, in part) (Potentially Significant)	<p><b>Mitigation Measure BIO-1a:</b> Avoidance and Minimization for Impacts to Special-Status Plants. A qualified botanist with a minimum of four years of academic training and professional experience in botanical sciences and a minimum of two years of experience conducting rare plant surveys shall conduct appropriately timed surveys for special-status plant species with a moderate or high potential to occur in the Project site (i.e., soft bird's-beak, Mason's liaeopsis, alkali milk-vetch, Congdon's tarplant, small spikerush, fragrant fritillary, delta tulle pea, and delta mudwort) in all suitable habitat that would be potentially disturbed by the Project.</p> <ol style="list-style-type: none"> <li>1) If no special-status plants are found during focused surveys, the botanist shall document the findings of found species in a letter to CDFW and the County, and no further mitigation will be required.</li> <li>2) If special-status plants are found during focused surveys, the following measures shall be implemented:                         <ol style="list-style-type: none"> <li>a) Information regarding the special-status plant populations shall be reported to the CNDDDB, mapped, and documented in a technical memorandum provided to the County.</li> <li>b) If federally or state listed species are identified during floristic preconstruction surveys, the Project proponent shall mark these plants for avoidance and comply with applicable laws (i.e., the federal and State Endangered Species Acts) including through coordination or consultation with regulatory agencies (i.e., USFWS and/or CDFW), as appropriate, and as described in items 3 and 4, below.</li> </ol> </li> </ol>	Less Than Significant

**TABLE 2-1 (CONTINUED)  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.3 Biological Resources (cont.)</b>		
<b>Impact BIO-1 (cont.)</b>	<ul style="list-style-type: none"> <li>c) If other special-status plant populations (i.e., California Rare Plant Ranked or locally significant plants) are identified during floristic preconstruction surveys and can be avoided during project implementation, they shall be clearly marked in the field by a qualified botanist and avoided during construction activities. If a Rank 3 or Rank 4 plant species is detected during the survey, the survey report shall analyze species rarity consistent with CEQA Guidelines (Section 15380) to determine if species protection is warranted. If the plants do not warrant protection, then no further action is needed for these species.</li> <li>d) If special-status plant populations are identified and cannot be avoided, the County shall coordinate or consult with CDFW and/or USFWS, as appropriate, on relocation of special-status plants. To the extent feasible, special-status plants that would be impacted by the Project shall be relocated within local suitable habitat. This can be done either through salvage and transplanting or by collection and propagation of seeds or other vegetative material. Any plant relocation or reintroduction through seeds or other vegetative material would be done under the supervision of a qualified botanist or restoration ecologist.</li> <li>e) If rare plants can be avoided, prior to vegetation removal, ground clearing or ground disturbance, all on-site construction personnel shall be instructed as to the species' presence and the importance of avoiding impacts to rare plant species and their habitat through the Worker Environmental Awareness Program training (see Mitigation Measure BIO-2a, below).</li> <li>f) The Project Applicant shall prepare a Rare Plant Relocation/Reintroduction and Monitoring Plan for relocated or reintroduced special-status plants which shall detail relocation or reintroduction methods or appropriate replacement ratios (e.g., at least 1:1 based on number of relocated plants or the area occupied by rare plants, as appropriate for the species) and methods for implementation (e.g., planting methods, need for supplemental irrigation, or weed control), success criteria (e.g., greater than 70% survival or ground coverage following 5 years), monitoring and reporting protocols, and contingency measures that shall be implemented if the initial mitigation fails (e.g., replanting to achieve success criteria). The plan shall be developed in coordination with the appropriate agencies prior to the start of local construction activities. At a minimum, success criteria shall require any mitigation to provide equal or better habitat and populations than the impacted area.</li> <li>g) If special-status plants are relocated from the Project or reintroduction of plants or seed is implemented, the Project Applicant shall maintain and monitor the relocation sites and/or restored areas for 5 years following the completion of construction and restoration activities. The Applicant shall submit monitoring reports to the County at the completion of restoration and for 5 years following restoration implementation. Monitoring reports shall include photo-documentation, planting specifications, a site layout map, descriptions of materials used, and justification for any deviations from the mitigation plan.</li> </ul>	

**TABLE 2-1 (CONTINUED)  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.3 Biological Resources (cont.)</b>		
<p><b>Impact BIO-2:</b> Construction of the Project could have a substantial adverse effect, either directly or through habitat modifications, on amphibian or reptile species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service. (Criterion a, in part) (Potentially Significant)</p>	<p><b>Mitigation Measure BIO-2a:</b> Worker Environmental Awareness Program Training. A Project-specific Worker Environmental Awareness Program (WEAP) training shall be developed and implemented by a qualified biologist for the Project and attended by all construction personnel prior to beginning work onsite. Typical credentials for a qualified biologist include a minimum of four years of academic training and professional experience in biological sciences and related resource management activities, and a minimum of two years of experience conducting surveys for each species that may be present within the Project area. The training could consist of a recorded presentation that could be reused for new personnel. The WEAP training shall generally address but not be limited to the following:</p> <ol style="list-style-type: none"> <li>1) Applicable State and federal laws, environmental regulations, project permit conditions, and penalties for non-compliance;</li> <li>2) Special-status plant and animal species with potential to occur at or in the vicinity of the Project site, their habitat, the importance of these species and their habitat, the general measures that are being implemented to conserve these species as they relate to the Project, and the boundaries within which the project construction shall occur, avoidance measures, and a protocol for encountering such species including a communication chain;</li> <li>3) Pre-construction surveys associated with each phase of work;</li> <li>4) Known sensitive resource areas in the Project vicinity that are to be avoided and/or protected as well as approved Project work areas; and</li> <li>5) Best management practices (BMPs) and their location on the Project site for erosion control and/or species exclusion.</li> </ol>	<p>Less Than Significant</p>
	<p><b>Mitigation Measure BIO-2b:</b> General Conservation Measures during Construction. The County shall ensure that the following general measures are implemented by the contractor during construction to prevent and minimize impacts on special-status species and sensitive biological resources:</p> <ol style="list-style-type: none"> <li>1) Ground disturbance and construction footprints will be minimized to the greatest degree feasible.</li> <li>2) Vehicles shall observe a 15 mile-per-hour speed limit within the Project site.</li> <li>3) The contractor shall provide closed garbage containers for the disposal of all food-related trash items. All garbage shall be collected daily from the Project site and placed in a closed container from which garbage shall be removed weekly. Construction personnel shall not feed or otherwise attract fish or wildlife to the Project site.</li> <li>4) As necessary, erosion control measures shall be implemented to prevent any soil or other materials from entering any nearby aquatic habitat. Erosion control measures shall be installed at work site boundaries adjacent to aquatic habitat to prevent soil from eroding or falling into the area.</li> </ol>	

**TABLE 2-1 (CONTINUED)**  
**SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.3 Biological Resources (cont.)</b>		
<b>Impact BIO-2 (cont.)</b>	<p>5) Erosion control measures shall be implemented as described in the Project SWPPP. Sediment control measures shall be furnished, constructed, maintained, and later removed. Plastic monofilament of any kind (including those labeled as biodegradable, photodegradable, or UV-degradable) shall not be used. Only natural burlap, coir, or jute wrapped fiber rolls that are certified weed-free shall be used.</p> <p>6) All fueling and maintenance of vehicles and equipment and the location of Project staging areas shall occur at least 100 feet from any aquatic habitat and associated freshwater and saltmarsh vegetation. Spill kits containing cleanup materials shall be available on-site.</p> <p>7) No equipment used in support of Project implementation (e.g. excavator) shall enter or cross waters in the Project area while water is flowing.</p> <p>8) Project personnel shall be required to report immediately any harm, injury, or mortality of a listed species (federal or state) during construction, including entrapment, to the construction foreman, qualified biologist, or County staff. The County or their consultant shall provide verbal notification to the USFWS Endangered Species Office in Sacramento, California, and/or to the local CDFW warden or biologist (as applicable) within 1 working day of the incident. The County or their consultant shall follow up with written notification to the appropriate agencies within 5 working days of the incident. All special-status species observations shall be recorded on California Natural Diversity Data Base (CNDDDB) field sheets/lpAC and sent to the CDFW/USFWS and by County staff or their consultant.</p>	
	<p><b>Mitigation Measure BIO-2c:</b> Avoidance, Minimization, and Protection Measures for Sensitive Amphibians and Reptiles. The following conservation measures shall be implemented to minimize or eliminate potential adverse impacts on California red-legged frog (CRLF) and western pond turtle (WPT) during Project construction:</p> <p>1) Consistent with the USFWS <i>California Red-legged Frog Survey Protocol</i>, a habitat assessment shall be prepared and submitted to the USFWS to support their determination of the species' potential to occur on site. If the USFWS agrees that the habitat assessment establishes species absence, or if subsequent protocol-level surveys requested by the USFWS following their review of the habitat assessment establish species absence, then no further action shall be needed to protect this species. In the absence of USFWS coordination, CRLF shall be presumed present within suitable aquatic habitat on the site and protective measures described below shall be followed.</p> <p>2) A qualified biologist shall survey the work sites within 5 calendar days prior to the onset of construction for CRLF and WPT to determine presence (and life stage) of these species on the Project site.</p> <p>Additionally, a qualified biologist shall conduct a pre-construction survey of Project aquatic habitat for CRLF and WPT immediately prior to the start of construction activities, beginning with installation of exclusion fencing (see 3, below). The surveys will consist of walking the Project work limits adjacent to areas where natural habitat is present to ascertain presence of these species (e.g., grasslands adjacent to suitable aquatic habitat within the Project site).</p>	

**TABLE 2-1 (CONTINUED)  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.3 Biological Resources (cont.)</b>		
<b>Impact BIO-2 (cont.)</b>	<p>3) Unless explicitly authorized by the USFWS (e.g., through issuance of a Biological Opinion, CRLF shall not be relocated if encountered within the Project site. Rather CRLF shall be allowed to disperse of their own volition while all work is halted within 50 feet of individuals. Prior to conducting preconstruction surveys, the qualified biologist shall prepare a relocation plan that describes the appropriate survey and handling methods for WPT and identifies nearby relocation sites where individuals would be relocated if found during the preconstruction surveys. The relocation plan shall be submitted to CDFW for review prior to the start of construction activities. The animal shall be relocated to equivalent or better WPT habitat relative to where it was found.</p> <p>4) A qualified biologist shall monitor installation of exclusion fencing (see 3, below) to identify, capture, and relocate WPT if found, and halt or observe work in the vicinity of CRLF if encountered onsite. The qualified biologist shall have the authority to stop construction activities proximate to these species and develop alternative work practices, in consultation with construction personnel and resource agencies (as appropriate), if construction activities are likely to affect special-status species or other sensitive biological resources.</p> <p>Unless explicitly authorized by the USFWS (e.g., through issuance of a Biological Opinion, CRLF shall not be relocated if encountered within the Project site. Rather CRLF shall be allowed to disperse of their own volition while all work is halted within 50 feet of individuals. If a CRLF is not dispersing on its own volition, the qualified biologist shall monitor the frog while exclusion fence installation or other work continues, as long as they can ensure the safety of the frog. The qualified biologist shall immediately inform the construction manager that work should be halted or modified (in the case of a buffer or non-dispersing individual), if necessary, to avert avoidable take of listed species. Should egg masses, metamorphs, or tadpoles of CRLF be identified within Project site aquatic habitat during these initial surveys or at any time during Project construction, the USFWS shall be contacted prior to continuation of work near the discovery.</p> <p>If WPT and/or CRLF are not observed during pre-construction surveys or installation of the exclusion fence, continued biological monitoring during construction is not necessary. If either of these species are observed onsite at any time, the Project Applicant shall coordinate with USFWS and /or CDFW as necessary to determine the appropriate measures to avoid species' take.</p> <p>5) The Project Applicant or its contractors shall install temporary exclusion fencing around key project boundaries (i.e., at the work limit of aquatic habitat and associated marsh vegetation to be preserved under the Project) and around all staging and laydown areas to exclude CRLF and WPT from Project construction activities.</p> <ul style="list-style-type: none"> <li>• Fencing shall be installed immediately prior to the start of construction activities under the supervision of a qualified biologist.</li> </ul>	

**TABLE 2-1 (CONTINUED)  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.3 Biological Resources (cont.)</b>		
<p><b>Impact BIO-2 (cont.)</b></p>	<ul style="list-style-type: none"> <li>• The Project Applicant or their contractor shall ensure that the temporary exclusion fencing is continuously maintained until all Project construction activities are completed. Daily fence inspections shall be conducted by the qualified biologist during the first week of construction. Thereafter, the qualified biologist may train the contractor to conduct regular inspections and coordinate findings with the qualified biologist. Similarly, vehicles or equipment parked overnight at the Project staging areas or work areas shall be inspected for harboring species each morning by the qualified biologist (or the trained contractor) before they are moved.</li> <li>• The wildlife exclusion fencing shall be a minimum height of 3 feet above ground surface, with an additional 4 to 6 inches of fence material buried such that animals cannot burrow under the fence.</li> <li>• The exclusion fence shall not cross the marsh associated with Pacheco Creek along the south edge of the site or bisect marsh vegetation to allow wildlife movement to continue through these areas when work is not occurring.</li> </ul> <p>6) All onsite excavations of a depth of 8 inches or greater shall be either backfilled at the end of each workday, covered with heavy metal plates, or escape ramps shall be installed at a 3:1 grade to allow wildlife that fall in a means to escape.</p>	
<p><b>Impact BIO-3:</b> Construction of the Project could have a substantial adverse effect, either directly or through habitat modifications, on migratory birds and/or on bird species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service. (Criterion a, in part) (Potentially Significant)</p>	<p><b>Mitigation Measure BIO-3a: Nesting Bird Protection Measures.</b></p> <p>1) Project staging, project construction, vegetation removal (e.g., clearing and grubbing), vegetation management activities requiring heavy equipment, or tree trimming shall be performed outside of the bird nesting season (February 1st through August 31st) to avoid impacts to nesting birds; if these activities must be performed during the nesting bird season, a qualified biologist shall be retained to conduct a pre-construction survey in the project construction and staging areas for nesting birds and verify the presence or absence of nesting birds no more than 5 calendar days prior to construction activities or after any construction breaks of 5 calendar days or more. Surveys shall be performed for the project construction and staging areas and suitable habitat within 250 feet of the project construction and staging areas in order to locate any active passerine (perching bird) nests and within 500 feet of the project construction and staging areas to locate any active raptor (birds of prey) nest. If nesting birds and raptors do not occur within 250 and 500 feet of the Project area, respectively, then no further action is required if construction begins within 5 calendar days.</p> <p>If active nests are located during the pre-construction bird nesting surveys, no- disturbance buffer zones shall be established around nests, with a buffer size established by the qualified biologist. Typically, these buffer distances are between 50 feet and 250 feet for passerines and between 300 feet and 500 feet for raptors. These distances may be adjusted depending on the level of surrounding ambient activity and if an obstruction, such as a building or structure, is within line-of-sight between the nest and construction. Reduced buffers may be allowed if a full-time qualified biologist is present to monitor the nest and has authority to halt construction if bird behavior indicates continued activities could lead to nest failure. Buffered zones shall be avoided during construction-related activities until young have fledged or the nest is otherwise abandoned.</p>	<p align="center">Less Than Significant</p>

**TABLE 2-1 (CONTINUED)  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.3 Biological Resources (cont.)</b>		
<p><b>Impact BIO-2 (cont.)</b></p>	<p><b>Mitigation Measure BIO-3b:</b> Avoid and Minimize Impacts to California Black Rail and Ridgway's Rail.</p> <p>To minimize or avoid the loss of individual California black rail and Ridgway's rail, construction activities, including vegetation management activities requiring heavy equipment, adjacent to tidal marsh areas (within 500 feet [150 meters] or a distance determined in coordination with USFWS or CDFW, shall be avoided during the breeding season from February 1 through August 31.</p> <ul style="list-style-type: none"> <li>• If areas within or adjacent to rail habitat cannot be avoided during the breeding season (February 1 through August 31), protocol-level surveys shall be conducted to determine rail nesting locations. The surveys will focus on potential habitat that could be disturbed by construction activities during the breeding season to ensure that rails are not breeding in these locations.</li> </ul> <p>Survey methods for rails will follow the Site-Specific Protocol for Monitoring Marsh Birds, which was developed for use by USFWS and partners to improve bay-wide monitoring accuracy by standardizing surveys and increasing the ability to share data (Wood et al. 2017). Surveys are conducted during the approximate period of peak detectability, January 15 to March 25 and are structured to efficiently sample an area in three rounds of surveys by broadcasting calls of target species during specific periods of each survey round. Call broadcasting increases the probability of detection compared to passive surveys when no call broadcasting is employed. This protocol has since been adopted by Invasive Spartina Project (ISP) and Point Blue Conservation Science to survey Ridgway's rails at sites throughout San Francisco Bay Estuary. The survey protocol for Ridgway's rail is summarized below.</p> <ul style="list-style-type: none"> <li>– Previously used survey locations (points) should be used when available to maintain consistency with past survey results. New survey points should be at least 200 meters apart along transects in or adjacent to areas representative of potentially suitable marsh habitat. Points should be located to minimize disturbances to marsh vegetation. Up to 8 points can be located on a transect.</li> <li>– At each transect, three surveys (rounds) are to be conducted, with the first round of surveys initiated between January 15 and February 6, the second round performed February 7 to February 28, and the third round March 1 to March 25. Surveys should be spaced at least one week apart and the period between March 25 to April 15 can be used to complete surveys delayed by logistical or weather issues. A Federal Endangered Species Act Section 10(a)(1)(A) permit is required to conduct active surveys.</li> <li>– Each point on a transect will be surveyed for 10 minutes each round. A recording of calls available from USFWS is broadcast at each point. The recording consists of 5 minutes of silence, followed by a 30-second recording of Ridgway's rail vocalizations, followed by 30 seconds of silence, followed by a 30-second recording of California black rail, followed by 3.5 minutes of silence.</li> </ul>	

**TABLE 2-1 (CONTINUED)  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.3 Biological Resources (cont.)</b>		
<b>Impact BIO-2 (cont.)</b>	<ul style="list-style-type: none"> <li>• If no breeding Ridgway's rails or black rails are detected during surveys, or if their breeding territories can be avoided by 500 feet (150 meters), then Project activities may proceed at that location.</li> <li>• If protocol surveys determine that breeding Ridgway's rails or black rails are present in the Project area, the following measures would apply to project activities conducted during their breeding season (February 1- August 31):               <ul style="list-style-type: none"> <li>– A USFWS- and CDFW-approved biologist with experience recognizing Ridgway's rail and black rail vocalizations will be on site during construction activities occurring within 500 feet (150 meters) of suitable rail breeding habitat.</li> <li>– If a Ridgway's rail or black rail vocalizes or flushes within 10 meters, it is possible that a nest or young are nearby. If an alarmed bird or nest is detected, work will be stopped, and workers will leave the immediate area carefully and quickly. An alternate route will be selected that avoids this area, and the location of the sighting will be recorded to inform future activities in the area.</li> <li>– All crews working within 500 feet of aquatic habitats during rail breeding season will be trained and supervised by a USFWS- and CDFW-approved rail biologist.</li> <li>– If any activities will be conducted during the rail breeding season in Ridgway's rail- or black rail-occupied marshes, biologists will have maps or GPS locations of the most current occurrences on the site and will proceed cautiously and minimize time spent in areas where rails were detected.</li> </ul> </li> <li>• For vegetation management activities in suitable habitat for Ridgway's rail or black rail, the following measures will be implemented:               <ul style="list-style-type: none"> <li>– Any herbicides to be used will be EPA-certified for use in/adjacent to aquatic environments.</li> <li>– Vegetation management activities will be limited to areas outside of tidal marsh and non-tidal pickleweed marsh habitats.</li> </ul> </li> </ul>	
	<b>Mitigation Measure BIO-2a</b> (Worker Environmental Awareness Program Training) (see Impact BIO-2)	
<b>Impact BIO-4:</b> Construction of the Project could have a substantial adverse effect, either directly or through habitat modifications, on salt marsh harvest mouse and special-status bat species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service. (Criterion a, in part) (Potentially Significant)	<p><b>Mitigation Measure BIO-4a:</b> Avoidance and Minimization Measures for Salt Marsh Harvest Mouse.</p> <ul style="list-style-type: none"> <li>• A USFWS and CDFW-approved biologist, with knowledge of and experience with salt marsh harvest mouse habitat requirements, will conduct pre-construction surveys for the species and identify and mark suitable salt marsh harvest mouse marsh habitat prior to Project initiation.</li> <li>• Ground disturbance to suitable salt marsh harvest mouse habitat (including, but not limited to pickleweed, and emergent salt marsh vegetation including bulrush and cattails) will be avoided to the extent feasible. Where salt marsh harvest mouse habitat cannot be avoided - such as for channel excavation, access routes and grading, or anywhere else that vegetation could be trampled or crushed by work activities - vegetation will be removed from the ground</li> </ul>	Less Than Significant

**TABLE 2-1 (CONTINUED)  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.3 Biological Resources (cont.)</b>		
<b>Impact BIO-4 (cont.)</b>	<p>disturbance work area plus a 10-foot buffer around the area, as well as any access routes within salt marsh harvest mouse habitat, utilizing mechanized hand tools or by another method approved by the USFWS and CDFW. Vegetation height shall be maintained at or below 5 inches above ground. Vegetation removal in salt marsh harvest mouse habitat will be conducted under the supervision of the USFWS- and CDFW-approved biologist.</p> <ul style="list-style-type: none"> <li>• To protect salt marsh harvest mouse from construction-related traffic, access roads, haul routes, and staging areas within 200 feet of salt marsh harvest mouse habitat will be bordered by temporary exclusion fencing. The fence should be made of a smooth material that does not allow salt marsh harvest mouse to climb or pass through, of a minimum above-ground height of 30 inches, and the bottom should be buried to a depth of at least 6 inches so that mice cannot crawl under the fence. Any supports for the salt marsh harvest mouse exclusion fencing (e.g., t-posts) will be placed on the inside of the project area. The last 5 feet of the fence shall be angled away from the road to direct wildlife away from the road. A USFWS- and CDFW-approved biologist with previous salt marsh harvest mouse experience will be on site during fence installation and will check the fence alignment prior to vegetation clearing and fence installation to ensure no salt marsh harvest mice are present.</li> <li>• All construction equipment and materials will be staged on existing roadways and away from suitable wetland habitats when not in use.</li> <li>• Vegetation shall be removed from all non-marsh areas of disturbance (driving roads, grading and stockpiling areas) to discourage presence of salt marsh harvest mouse.</li> <li>• A USFWS- and CDFW-approved biologist with previous salt marsh harvest mouse monitoring and/or surveying experience will be on site during construction activities occurring in suitable habitat. The biologist will document compliance with the project permit conditions and avoidance and conservation measures. The USFWS-and CDFW-approved biologist has the authority to stop project activities if any of the requirements associated with these measures is not being fulfilled. If salt marsh harvest mouse is observed in the work area, construction activities will cease in the immediate vicinity of the salt marsh harvest mouse. The individual will be allowed to leave the area before work is resumed. If the individual does not move on its own volition, the USFWS-approved biologist would contact USFWS (and CDFW if appropriate) for further guidance on how to proceed.</li> <li>• If the USFWS- and CDFW-approved biologist has requested work stoppage because of take of any of the listed species, or if a dead or injured salt marsh harvest mouse is observed, the USFWS and CDFW will be notified within one day by email or telephone.</li> <li>• For vegetation management activities in suitable habitat for salt marsh harvest mouse, the following measures shall be implemented:             <ul style="list-style-type: none"> <li>– Any herbicides to be used will be EPA certified for use in/adjacent to aquatic environments.</li> <li>– Work in upland habitat within 100 feet of salt marsh harvest mouse habitat will be scheduled to avoid extreme high tides when there is potential for salt marsh harvest mouse to move to higher, drier grounds, such as ruderal and grassland habitats.</li> </ul> </li> </ul>	

**TABLE 2-1 (CONTINUED)  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.3 Biological Resources (cont.)</b>		
<p><b>Impact BIO-4 (cont.)</b></p>	<p><b>Mitigation Measure BIO-4b:</b> Avoidance and Minimization Measures for Bats. A qualified biologist who is experienced with bat surveying techniques, behavior, roosting habitat, and identification of local bat species shall conduct a pre-construction habitat assessment of the Project site to characterize potential bat habitat and identify potentially active roost sites. No further action is required if the pre-construction habitat assessment does not identify bat habitat or signs of potentially active bat roosts within the Project site (e.g., guano, urine staining, dead bats, etc.).</p> <p>If the surveying biologist identifies potential roosting habitat or potentially active bat roosts within or in the immediate vicinity of the Project site, including trees that could be trimmed or removed under the Project, the following measures shall be implemented:</p> <ol style="list-style-type: none"> <li>1) Removal of- or disturbance to trees identified as potential bat roosting habitat or active roosts shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15, to the extent feasible. These dates avoid bat maternity roosting season (approximately April 15 to August 31) and period of winter torpor (approximately October 15 to February 28).             <ol style="list-style-type: none"> <li>a. If removal of- or disturbance to trees identified as potential bat roosting habitat or active roosts during the periods when bats are active is not feasible, a qualified biologist will conduct pre-construction surveys within 5 calendar days prior to disturbance to further evaluate bat activity within the potential habitat or roost site.</li> <li>b. If active bat roosts are not identified in potential habitat during pre-construction surveys, no further action is required prior to removal of- or disturbance to trees within the pre-construction survey area.</li> <li>c. If active bat roosts or evidence of roosting is identified during pre-construction surveys, the qualified biologist shall determine, if possible, the type of roost and species.                 <ol style="list-style-type: none"> <li>i) If special-status bat species or maternity or hibernation roosts are detected during these surveys, appropriate species- and roost-specific avoidance and protection measures shall be developed by the qualified biologist. Such measures may include postponing the removal of or disturbance to trees, or establishing exclusionary work buffers while the roost is active. A minimum 100-foot no disturbance buffer shall be established around special-status species, maternity, or hibernation roosts until the qualified biologist determines they are no longer active. The size of the no-disturbance buffer may be adjusted by the qualified biologist, in coordination with CDFW, depending on the species present, roost type, existing screening around the roost site (such as dense vegetation), as well as the type of construction activity that would occur around the roost site, and if construction would not alter the behavior of the adult or young in a way that would cause injury or death to those individuals.</li> </ol> </li> </ol> </li> </ol> <p>Active maternity roosts shall not be disturbed without advance CDFW approval until the roost disbands at the completion of the maternity roosting season or otherwise becomes inactive, as determined by the qualified biologist.</p>	

**TABLE 2-1 (CONTINUED)  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.3 Biological Resources (cont.)</b>		
<b>Impact BIO-4 (cont.)</b>	<ul style="list-style-type: none"> <li>ii) If a common species, non-maternity or hibernation roost (e.g., bachelor daytime roost) is identified, disturbance to- or removal of trees or structures may occur under the supervision of a qualified biologist as described under 3).</li> <li>2) The qualified biologist shall be present during tree disturbance or removal if active non-maternity or hibernation bat roosts or potential roosting habitat are present. Trees with active non-maternity or hibernation roosts of common species or potential habitat shall be disturbed or removed only under clear weather conditions when precipitation is not forecast for three days and when daytime temperatures are at least 50°F to ensure bats are active and can abandon any potential roosts as disturbance from the clearing activities occurs, and when wind speeds are less than 15 mph. Trimming or removal of trees with active (non-maternity or hibernation) or potentially active roost sites of common bat species shall follow a two-step removal process:               <ul style="list-style-type: none"> <li>a. On the first day of tree removal and under supervision of the qualified biologist, branches and limbs not containing cavities or fissures in which bats could roost, shall be cut only using hand tools (e.g., chainsaws).</li> <li>b. On the following day and under the supervision of the qualified biologist, the remainder of the tree may be removed, either using hand tools or other equipment (e.g. excavator or backhoe).</li> <li>c. All felled trees shall remain on the ground for at least 24 hours prior to chipping, off-site removal, or other processing to allow any bats to escape, or be inspected once felled by the qualified biologist to ensure no bats remain within the tree and/or branches.</li> </ul> </li> <li>3) Bat roosts that begin during construction are presumed to be unaffected as long as a similar type of construction activity continues, and no buffer would be necessary. Direct impacts on bat roosts or take of individual bats will be avoided.</li> </ul>	
	<b>Mitigation Measure BIO-2a</b> (Worker Environmental Awareness Program Training) (see Impact BIO-2)	
<b>Impact BIO-5:</b> Construction of the Project could have a substantial adverse effect on sensitive natural communities. (Criterion b) (Potentially Significant)	<p><b>Mitigation Measure BIO-5a:</b> Salvage and Reintroduction of Creeping Wildrye Grassland. The following measures shall be implemented prior to construction to avoid or minimize impacts to creeping wildrye grassland within the Project site.</p> <ul style="list-style-type: none"> <li>1) A qualified botanist shall identify the boundaries of creeping wildrye grassland within the Project site during the flowering season (between June and July) and prior to site grading. Boundaries of this sensitive natural community shall be mapped and flagged for avoidance, if feasible.</li> <li>2) Where avoidance of this community is infeasible, the perennial grasses shall be harvested at the appropriate time and under the direction of the qualified botanist from locations where grading and/or ground disturbance will occur within the Project site.</li> </ul>	Less Than Significant

**TABLE 2-1 (CONTINUED)**  
**SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.3 Biological Resources (cont.)</b>		
<b>Impact BIO-5 (cont.)</b>	<ul style="list-style-type: none"> <li>3) Harvested grasses shall be stored for reintroduction into suitable habitat within upland portions of the Project site that will be preserved as open space.</li> <li>4) The Project applicant shall contract a qualified restoration ecologist to prepare a Monitoring Plan for relocated / transplanted creeping wildrye grasses within the Project site. The plan shall detail methods and location for relocating or reintroducing the grasses, success criteria, monitoring methods and maintenance for successful establishment, reporting protocols, and contingency measures to be implemented if the initial mitigation fails. The plan shall be developed in coordination with the appropriate agencies prior to the start of local construction activities, with the objective of providing equal or better habitat and populations than the impacted area(s). The recommended success criteria for relocated plants shall be 0.75:1 ratio [number of plants established: number of plants impacted] after two years, unless otherwise specified by CDFW.</li> <li>5) The plan shall be submitted to the County and CDFW prior to the start of local construction activities within the creeping wildrye grassland.</li> <li>6) Monitoring reports shall include photo-documentation, planting specifications, a site layout map, descriptions of materials used, and justification for any deviations from the monitoring plan.</li> </ul>	
	<p><b>Mitigation Measure BIO-5b:</b> Enhancement and Creation of Valley Oak Woodland. The Project applicant shall mitigate for temporary disturbance of oak woodland in support of the Project through restoration or preservation / enhancement / creation of oak woodland at a ratio of 1:1 (restored/enhanced/preserved area: impacted area) through one of the following options:</p> <ul style="list-style-type: none"> <li>1) Planting replacement trees within the Project site on areas of the hill that will be preserved as open space following development.</li> </ul> <p>The Project sponsor shall contract with a qualified restoration ecologist to prepare a Habitat Mitigation and Monitoring Plan (HMMP) for oak woodland habitat to be restored as part of the Project. The HMMP would be subject to approval by Contra Costa County. The HMMP shall include a detailed description of restoration/enhancement/preservation actions proposed such as a planting plan, a weed control plan to prevent the spread of invasive and non-native species within restored areas, and erosion control measures to be installed around the restored area following mitigation planting to avoid or minimize sediment runoff throughout the Project site; restoration performance criteria for the restored area that establish success thresholds over a period of 5 years; and proposed monitoring/maintenance program to evaluate the restoration performance criteria, under which progress of restored areas are tracked to ensure survival of the mitigation plantings. The program shall document overall health and vigor of mitigation plantings throughout the monitoring period and provide recommendations for adaptive management as needed to ensure the site is successful, according to the established performance criteria. An annual report documenting the results and providing recommendations for improvements throughout the year shall be provided to the County.</p>	

**TABLE 2-1 (CONTINUED)  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.3 Biological Resources (cont.)</b>		
<b>Impact BIO-5 (cont.)</b>	<p>In designing the Tree Replacement Plan, the arborist shall review the final project grading plans to ensure that adequate tree preservation methods, guidelines, and conditions are in place. The project arborist shall host pre-demolition meetings with the general contractor and demolition contractor to determine clearance pruning, stump removal techniques, fencing placement and, timing to establish a Tree Protection Zone (TPZ). The arborist shall conduct post-demolition meetings to review and confirm tree protection fencing for grading and construction. All vehicles, equipment, and storage of job site materials and debris, shall be kept outside of the TPZ. The arborist shall incorporate standard protocols set forth in the American National Standards Institute (ANSI) A300 Construction Management Standard, Part 5 and the International Society of Arboriculture's Best Management Practices: Managing Trees During Construction.</p> <p>2) Paying an in-lieu fee to a natural resource agency or a non-profit organization that would use the fees to protect or enhance oak woodland habitat of the region.</p> <p>If an in-lieu fee is used for mitigation, the amount of the in-lieu fee shall be determined either by calculating the value of the land with oak woodland habitat proposed for removal, or by some other calculation. An alternate calculation shall reflect differences in the quality of habitat proposed for removal, and may consider the cost of comparable habitat (fee title or easement) in nearby areas. The amount of the in-lieu fee and entity receiving the funds shall be subject to review and approval by Contra Costa County.</p>	
	<p><b>Mitigation Measure BIO-6a</b> (Protection of Jurisdictional Wetlands and Other Waters) (see Impact BIO-6)</p> <p><b>Mitigation Measure BIO-6b</b> (Permits and Compensation for Impacts to Wetlands and Waters) (see Impact BIO-6)</p>	
<b>Impact BIO-6:</b> Construction of the Project could have a substantial adverse effect on wetlands or other Waters of the U.S. and the State. (Criterion c) (Potentially Significant)	<p><b>Mitigation Measure BIO-6a:</b> Protection of Jurisdictional Wetlands and Other Waters. For Project development within or adjacent to state and federal jurisdictional wetlands and waters, protection measures shall be applied to protect these features. These measures shall include the following:</p> <ol style="list-style-type: none"> <li>1) An updated wetland delineation shall be submitted to USACE for verification to establish the boundaries and current jurisdictional status of the aquatic features in the site. The verified wetland delineation shall be used to quantify the Project impacts to aquatic resources for permitting purposes.</li> <li>2) To the maximum extent feasible, Project construction activities within or adjacent to wetlands or waters shall be conducted during the dry season (between June 15 and October 15) and the disturbance footprint shall be minimized in these areas.</li> <li>3) Stabilize disturbed, exposed slopes immediately upon completion of construction activities (e.g., following cut and fill activities and installation of bioretention pond infrastructure) to prevent any soil or other materials from entering aquatic habitat. Plastic monofilament of any kind (including those labeled as biodegradable, photodegradable, or UV-degradable) shall not be used. Only natural burlap, coir, coconut or jute wrapped fiber rolls and mats shall be used.</li> </ol>	Less Than Significant

**TABLE 2-1 (CONTINUED)  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.3 Biological Resources (cont.)</b>		
<b>Impact BIO-6 (cont.)</b>	<ol style="list-style-type: none"> <li>4) A protective barrier (fence) shall be erected around any wetlands or waters designated for complete avoidance in Project construction plans and regulatory permits to isolate it from construction or other ground-disturbing activities.</li> <li>5) A fencing material meeting the requirements of both water quality protection and wildlife exclusion may be used. Fences must be properly installed with final approval by a County representative, including adequate supports or wire backing for use if windy conditions are anticipated, and with the lower edge keyed in to the soil to ensure a proper barrier. Signage shall be installed on the fencing to identify sensitive habitat areas and restrict construction activities;</li> <li>6) No equipment mobilization, grading, clearing, or storage of vehicles, equipment or machinery, or similar activity shall occur until a County representative has inspected and approved the wetland protection fence; and</li> <li>7) The Project proponent shall ensure that the temporary fence is continuously maintained until all construction or other ground-disturbing activities are completed.</li> <li>8) Drip pans and/or liners shall be stationed beneath all equipment staged nearby jurisdictional features overnight to minimize spill of deleterious materials into jurisdictional waters. Equipment maintenance and refueling in support of project implementation shall be performed in designated upland staging areas and work areas, and spill kits shall be available on-site. Maintenance activity and fueling must occur at least 100 feet from jurisdictional wetlands and other waters or farther as specified in the project permits and authorizations.</li> </ol>	
	<p><b>Mitigation Measure BIO-6b:</b> Permits and Compensation for Impacts to Wetlands and Waters.</p> <p>To offset unavoidable permanent impacts to approximately 0.02 acres of the side-hill seep and the fill of less than 0.1 acres for construction of the storm drain outfall along the bank of Pacheco Creek, the Project applicant shall secure the appropriate permits and provide compensatory mitigation as determined by the regulatory agencies with jurisdiction over the impacted aquatic resources during the permitting process. To establish the jurisdictional status of the various aquatic features in the site, the updated wetland delineation will be submitted to USACE for verification. The necessary permits will depend on the jurisdictional status of the features. While the outfall in Pacheco Creek is expected to require permits from USACE (Nationwide 7), CDFW (1602 Streambed Alteration Agreement), and RWQCB (401 Certification), the permitting scenario of the side-hill seep is less predictable. It is possible USACE will verify this feature as outside Clean Water Act jurisdiction due to spatial and hydrological isolation from other Waters of the U.S. If the seep is verified as non-jurisdictional, the Regional Water Quality Control Board Water would be expected to issue a Notice of Applicability to authorize its fill pursuant to Water Quality Order No. 2004-0004-DWQ.</p> <p>At a minimum, compensation acreage for impacted wetlands and waters would meet a 1:1 ratio (created/restored/enhanced: impacted) to achieve no net loss of aquatic resources. Compensation may include on-site or off-site creation, restoration, or enhancement of jurisdictional resources, as determined by the permitting agencies. On-site or off-site creation/restoration/enhancement plans</p>	

**TABLE 2-1 (CONTINUED)  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.3 Biological Resources (cont.)</b>		
<b>Impact BIO-6 (cont.)</b>	must be prepared by a qualified biologist prior to construction, include a planting plan and planting methods, monitoring and reporting requirements, performance criteria (e.g., species diversity and vegetative cover thresholds), and maintenance requirements, and is subject to review and modification by resource agency permits. Implementation of creation/restoration/enhancement activities by the Project applicant (or permittee) shall occur prior to Project impacts, whenever possible, to avoid temporal loss. On- or off-site creation/restoration/enhancement sites shall be monitored by the applicant for at least five years to ensure their success, or as otherwise required by resource agencies.	
	<p><b>Mitigation Measure BIO-2a</b> (Worker Environmental Awareness Program Training) (see Impact BIO-2)</p> <p><b>Mitigation Measure BIO-2b</b> (General Conservation Measures during Construction) (see Impact BIO-2)</p>	
<b>Impact BIO-7:</b> The Project would not interfere substantially with the movement of native resident or migratory bird species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (Criterion d) (Potentially Significant)	<p><b>Mitigation Measure BIO-2a</b> (Worker Environmental Awareness Program Training) (see Impact BIO-2)</p> <p><b>Mitigation Measure BIO-2b</b> (General Conservation Measures during Construction) (see Impact BIO-2)</p> <p><b>Mitigation Measure BIO-2c</b> (Avoidance, Minimization, and Protection Measures for Sensitive Amphibians and Reptiles) (see Impact BIO-2c)</p> <p><b>Mitigation Measure BIO-3a</b> (Nesting Bird Protection Measures) (see Impact BIO-3)</p> <p><b>Mitigation Measure BIO-3b</b> (Avoid and Minimize Impacts to California Black Rail and Ridgway's Rail)</p> <p><b>Mitigation Measure BIO-4a</b> (Avoidance and Minimization Measures For Salt Marsh Harvest Mouse) (see Impact BIO-4)</p> <p><b>Mitigation Measure BIO-4b</b> (Avoidance and Minimization Measures for Bats) (see Impact BIO-4)</p>	Less Than Significant
<b>Impact BIO-8:</b> The Project would not conflict with any local policies or ordinances protecting biological resources. (Criteria e). (Potentially Significant)	<b>Mitigation Measure BIO-5b</b> (Enhancement and Creation of Valley Oak Woodland) (see Impact BIO-5)	Less Than Significant
<b>Impact C-BIO-1:</b> The proposed Project, in conjunction with cumulative development in the region, could result in cumulative impacts on special-status species, habitats, wetlands and other waters of the U.S., to which the Project would have a cumulatively considerable contribution. (All Criteria) (Potentially Significant)	<p><b>Mitigation Measures BIO-1</b> (Avoidance and Minimization for Impacts to Special-Status Plants) see Impact BIO-1)</p> <p><b>Mitigation Measure BIO-2a</b> (Worker Environmental Awareness Program Training) (see Impact BIO-2)</p> <p><b>Mitigation Measure BIO-2b</b> (General Conservation Measures during Construction) (see Impact BIO-2)</p>	Less Than Significant

**TABLE 2-1 (CONTINUED)  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.3 Biological Resources (cont.)</b>		
<p><b>Impact C-BIO-1 (cont.)</b></p>	<p><b>Mitigation Measure BIO-2c</b> (Avoidance, Minimization, and Protection Measures for Sensitive Amphibians and Reptiles) (see Impact BIO-2c)  <b>Mitigation Measure BIO-3a</b> (Nesting Bird Protection Measures) (see Impact BIO-3)  <b>Mitigation Measure BIO-4a</b> (Avoidance and Minimization Measures For Salt Marsh Harvest Mouse) (see Impact BIO-4)  <b>Mitigation Measure BIO-4a</b> (Avoidance and Minimization Measures For Salt Marsh Harvest Mouse) (see Impact BIO-4)  <b>Mitigation Measure BIO-4b</b> (Avoidance and Minimization Measures for Bats) (see Impact BIO-4)  <b>Mitigation Measure BIO-5a</b> (Salvage and Reintroduction of Creeping Wildrye Grassland) (see Impact BIO-5)  <b>Mitigation Measure BIO-5b</b> (Enhancement and Creation of Valley Oak Woodland) (see Impact BIO-5)  <b>Mitigation Measure BIO-6a</b> (Protection of Jurisdictional Wetlands and Other Waters) (see Impact BIO-6)  <b>Mitigation Measure BIO-6b</b> (Permits and Compensation for Impacts to Wetlands and Waters) (see Impact BIO-6)</p>	
<b>4.4 Cultural Resources and Tribal Cultural Resources</b>		
<p><b>Impact CUL-1:</b> The Project would involve extensive subsurface disturbance that could potentially encounter and damage previously undiscovered archaeological resources, human remains, and tribal cultural resources. (Criteria b, c and d) (Potentially Significant prior to Mitigation)</p>	<p><b>Mitigation Measure CUL-1a:</b> If prehistoric or historic-period archaeological resources are encountered during Project implementation, including ground disturbance associated with project construction, all construction activities within 100 feet shall halt, and a qualified archaeologist, defined as an archaeologist meeting the U.S. Secretary of the Interior’s Professional Qualification Standards for Archeology, shall inspect the find within 24 hours of discovery and notify the County of their initial assessment. 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. Historic-period materials might include building or structure footings and walls, and deposits of metal, glass, and/or ceramic refuse.</p> <p>If the County determines, based on recommendations from a qualified archaeologist and a Native American representative (if the resource is Native American-related), that the resource may qualify as a historical resource or unique archaeological resource (as defined in CEQA Guidelines Section 15064.5) or a tribal cultural resource (as defined in PRC Section 21080.3), the resource shall be avoided if feasible. If avoidance is not feasible, the County shall consult with appropriate Native American tribes (if the resource is Native American-related), and other appropriate interested parties to determine treatment measures to avoid, minimize, or mitigate any potential impacts to the resource pursuant to PRC Section 21083.2, and CEQA Guidelines Section 15126.4. This shall include documentation of the resource and may include data recovery (according to PRC Section</p>	<p align="center">Less Than Significant</p>

**TABLE 2-1 (CONTINUED)  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.4 Cultural and Tribal Cultural Resources (cont.)</b>		
<p><b>Impact CUL-1 (cont.)</b></p>	<p>21083.2), if deemed appropriate, or other actions such as treating the resource with culturally appropriate dignity and protecting the cultural character and integrity of the resource, determined by a qualified professional or California Native American tribe, as is appropriate (according to PRC Section 21084.3). All significant cultural materials recovered shall, at the discretion of the consulting professional, be subject to scientific analysis, professional museum curation, and documentation according to current professional standards.</p> <p>In considering any suggested mitigation proposed by the consulting professional to mitigate impacts to cultural resources, the County shall determine whether avoidance is feasible in light of factors such as the nature of the find, project design, costs, and other considerations.</p> <p>If avoidance is infeasible, other appropriate measures, such as data recovery, shall be instituted. The resource shall be treated with the appropriate dignity, taking into account the resource's historical or cultural value, meaning, and traditional use, as determined by a qualified professional or California Native American tribe, as is appropriate. Work may proceed on other parts of the project site while mitigation for cultural resources is carried out. All significant cultural materials recovered shall, at the discretion of the consulting professional, be subject to scientific analysis, professional museum curation, and documentation according to current professional standards. At the County's discretion, all work performed by the consulting professional shall be paid for by the proponent and at the County's discretion, the professional may work under contract with the County.</p>	
	<p><b>Mitigation Measure CUL-1b:</b> In the event of discovery or recognition of any human remains during construction activities, the following steps shall be taken:</p> <ol style="list-style-type: none"> <li>1. There shall be no further excavation or disturbance of the location where human remains are found or within 100 feet until:               <ol style="list-style-type: none"> <li>A. The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and</li> <li>B. If the coroner determines the remains to be Native American:                   <ol style="list-style-type: none"> <li>(1) The coroner shall contact the Native American Heritage Commission within 24 hours;</li> <li>(2) The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American;</li> <li>(3) The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98; or</li> </ol> </li> </ol> </li> <li>2. Where the following conditions occur, the landowner or his authorized representative shall reburry the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance:</li> </ol>	

**TABLE 2-1 (CONTINUED)**  
**SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.4 Cultural and Tribal Cultural Resources (cont.)</b>		
<b>Impact CUL-1 (cont.)</b>	<p>A. The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the Commission;</p> <p>(1) The identified descendant fails to make a recommendation; or</p> <p>(2) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.</p>	
<b>Impact C-CUL-1:</b> The Project, in conjunction with cumulative development, could contribute to cumulative impacts on cultural resources. (Criteria b, c and d) (Less than Significant)	None required	
<b>4.5 Geology and Soils</b>		
<b>Impact GEO-1:</b> The Project could directly or indirectly cause substantial adverse effects involving slope instability hazards, including landslides, debris flows, and rockfalls caused by seismic or nonseismic mechanisms. (Criteria a.iv and c) (Potentially Significant)	<p><b>Mitigation Measure GEO-1:</b> Grading Plans. The Project applicant shall include in the Project's preliminary grading plan the recommendations made in Engeo's <i>Geotechnical Exploration Bay View Subdivision</i> report dated August 15, 2003, the <i>Geotechnical Review of Rough Grading Plan and Supplemental Recommendations</i> dated June 27, 2006, and supplemental <i>Plan Review and Response to Peer Review Comments Memo</i> dated June 19, 2019, and <i>Response to CCCFCD Comments Regarding Geotechnical Feasibility Bayview</i> dated May 29, 2020, except as superseded by specific geotechnical recommendations related to engineering or the physical aspects of Project construction in the <i>Geologic Peer Reviews</i> dated August 9, 2006, April 14, 2006 and June 30, 2020 by Darwin Myers Associates (DMA) on behalf of the County, to the extent that all recommendations apply to the proposed grading plan. These recommendations include oversight of grading operations which shall be conducted by a California Certified Engineering Geologist or Registered Professional Geotechnical Engineer.</p> <p>The final grading plans shall be in accordance with the <i>Contra Costa County Grading Ordinance (Title 7 Division 716)</i> and reviewed and approved by the Contra Costa Department of Conservation and Development prior to the commencement of Project construction. If any slopes or areas of concern are observed to be unstable during grading, the California certified engineering geologist or registered professional geotechnical engineer shall oversee the removal of the suspected material and reconstruction of the slope as a buttress fill slope with engineered slope stabilization features such as geogrid reinforcement.</p> <p>Final inspection of excavated slopes and graded slopes shall be completed by a California certified engineering geologist or registered professional geotechnical engineer with knowledge of the Project conditions. The slope stability considerations for the site shall be submitted to and approved of by the Contra Costa Department of Conservation and Development prior to the commencement of Project construction.</p>	Less Than Significant

**TABLE 2-1 (CONTINUED)**  
**SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.5 Geology and Soils (cont.)</b>		
<p><b>Impact GEO-2:</b> The Project could directly or indirectly expose people or structures to strong ground shaking from a seismic event on one of the regional active faults, causing substantial risk of loss, injury, or death. (Criterion a.ii) (Potentially Significant)</p>	<p><b>Mitigation Measure GEO-2:</b> Design-level Geotechnical Investigation. The Project applicant shall prepare and submit to the County a site-specific, design level geotechnical investigation for the Project. The investigation shall analyze expected ground motions at the site from known active faults in accordance with the 2019 California Building Code (“Title 24”), which requires that all designs accommodate ground accelerations expected from known active faults. The investigation shall review improvement and grading plans and update geotechnical design recommendations for proposed walls, foundations, foundation slabs and surrounding related improvements (e.g., utilities, roadways, parking lots and sidewalks) including maintaining pipeline safety for existing pipelines. The report shall be subject to technical review and approval by a California certified engineering geologist or registered professional geotechnical engineer.</p> <p>All recommendations by the engineering geologist and/or geotechnical engineer shall be incorporated into the final design. Recommendations that are applicable to foundation design, earthwork, and site preparation that were prepared prior to or during the Project design phase, shall be incorporated in the Project, all foundations and other project structures must comply with the performance standards set forth in the California Building Code. The final seismic considerations for the site shall be submitted to and approved of by the Contra Costa Department of Conservation and Development prior to the commencement of Project construction.</p>	Less Than Significant
<p><b>Impact GEO-3:</b> The Project site would be susceptible to settlement from static forces or earthquake induced forces, posing substantial risk of structural damage or personal injury. (Criterion c) (Potentially Significant prior to Mitigation)</p>	<p><b>Mitigation Measure GEO-3:</b> Fill Placement. The Project applicant shall incorporate the geotechnical recommendations pertaining to proposed fill placement and site preparation including the fill transition zone areas for the grading plan for the Project, as specified in Engeo’s <i>Geotechnical Exploration Bay View Subdivision</i> report dated August 15, 2003, and the <i>Geotechnical Review of Rough Grading Plan and Supplemental Recommendations</i> dated June 27, 2006, and supplemental <i>Plan Review and Response to Peer Review Comments Memo</i> dated June 19, 2019 and <i>Response to CCCFCD Comments Regarding Geotechnical Feasibility</i> dated May 29, 2020, except as superseded by specific geotechnical recommendations related to engineering or the physical aspects of Project construction in the <i>Geologic Peer Reviews</i> dated August 9, 2006, April 14, 2006, and June 30, 2020 by Darwin Myers Associates (DMA) on behalf of the County. In addition, the Project applicant shall adhere to County grading and construction policies to reduce the potential for geologic hazards, including settlement and differential settlement. All construction activities and design criteria shall comply with applicable codes and requirements of the 2019 California Building Code (“Title 24”). The final grading plan reflecting the applicant recommendation for the site pertaining to fill placement shall be submitted to and approved by the Contra Costa Department of Conservation and Development prior to the commencement of Project construction.</p>	Less Than Significant
<p><b>Impact GEO-4:</b> Project construction would loosen and expose substantial volumes of surface soils susceptible to loss of topsoil and erosion. (Criterion b) (Potentially Significant)</p>	<p><b>Mitigation Measure GEO-4:</b> Terraced Slopes/Drainage. The Project applicant shall ensure routine inspections and maintenance of terraced slopes conducted by qualified professionals. Maintenance measures shall include maintaining vegetative cover of exposed slopes upland of the proposed development after construction, for the operational life of the Project, consistent with the provisions of the Project’s SWPPP, as identified in Section 4.7, <i>Hydrology and Water Quality</i>, if this EIR. Drainage conveyances on the cut terraces shall be maintained to ensure a minimum of 85 percent</p>	Less Than Significant

**TABLE 2-1 (CONTINUED)**  
**SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.5 Geology and Soils (cont.)</b>		
<b>Impact GEO-4 (cont.)</b>	of total conveyance capacity, as specified in the Stormwater Management Facilities Operation and Maintenance Agreement. Any evidence of gully or rill erosional effects shall be remedied immediately by the Project applicant through additional hydroseeding or other industry standard measures and best practices for erosion control.	
<b>Impact GEO-5:</b> The Project site would be susceptible to expansive soils, posing substantial risk of structural damage or personal injury. (Criterion d) (Potentially Significant)	<b>Mitigation Measure GEO-3</b> (Fill Placement) (see Impact GEO-3)	Less Than Significant
<b>Impact GEO-6:</b> The Project would involve extensive subsurface disturbance that could potentially encounter and damage previously undiscovered buried paleontological resources or unique geological features. (Criterion f) (Potentially Significant)	<b>Mitigation Measure GEO-5:</b> Paleontological Resources Treatment. If paleontological resources are encountered, all construction activities within 100 feet shall halt and the County shall be notified. A qualified paleontologist, defined as a paleontologist meeting the Society for Vertebrate Paleontology's Professional Standards shall inspect the findings within 24 hours of discovery. If it is determined that the Project could damage a paleontological resource or a unique geologic feature (as defined pursuant to the CEQA Guidelines), mitigation shall be implemented in accordance with PRC Section 21083.2 and Section 15126.4 of the CEQA <i>Guidelines</i> , with a preference for preservation in place. Consistent with Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is not feasible, a qualified paleontologist shall prepare and implement a detailed treatment plan in consultation with the County. Treatment of unique paleontological resources shall follow the applicable requirements of PRC Section 21083.2. Treatment for most resources would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the Project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals.	Less Than Significant
<b>Impact C-GEO-1:</b> The Project, in conjunction with cumulative development, would not result in significant cumulative impacts with respect to geology, soils, or seismicity to which the Project would have a cumulatively considerable contribution. (All Criteria) (Less than Significant)	None required	

**TABLE 2-1 (CONTINUED)  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.6 Greenhouse Gas Emissions and Energy</b>		
<p><b>Impact GHG-1:</b> The Project would generate GHG emissions that could have a significant impact on the environment. (Criterion a.) (Potentially Significant)</p>	<p><b>Mitigation Measure GHG-1: GHG Emissions Reduction Plan.</b></p> <p><i>Prior to the County's approval of the first construction or grading-related permit for the Project, the Project applicant shall submit to the County a "GHG Emissions Reduction Plan" ("Plan") for implementation over the useful life of the Project (generally estimated to be at least 30 years) in accordance with the requirements of this mitigation measure. The Plan shall document the GHG reduction measures that will be combined and implemented to achieve the required emissions reduction of at least 182 MT CO<sub>2e</sub> /year, and a quantification of the emissions reductions achieved with the combination of measures identified in the Plan.</i></p> <p><b>A. On-Site Reduction Measures.</b> The Project applicant shall implement any combination of the following GHG emissions reduction measures to, cumulatively, achieve the required emissions reduction of at least approximately 182 MT CO<sub>2e</sub> /year to achieve the GHG efficiency target of 3.86 MTCO<sub>2e</sub>/SP, as discussed in the <i>Approach to Analysis</i>.</p> <ol style="list-style-type: none"> <li>1) <u>Meet the Project's electricity demand with rooftop solar PV and/or through purchase of 100% zero-carbon electricity.</u> The Project will purchase 100% zero-carbon electricity (e.g., through MCE's "Deep Green" or "Local Sol" plans, or through PG&amp;E's "Solar Choice" plan).</li> <li>2) <u>Electrification.</u> The Project applicant shall demonstrate on Project plans submitted to the County for review and approval that each of the 144 homes include electric heating and cooling or all loads, and will either use additional on-site solar or purchase 100 percent zero-carbon electricity (e.g., through MCE's "Deep Green" or "Local Sol" plans or PG&amp;E's "Solar Choice" plan). Alternatively, default grid-supplied electricity would be incorporated into the Project.</li> <li>3) <u>Hearth Reduction.</u> The Project applicant shall demonstrate on Project plans submitted to the County for review and approval that hearths will not be installed in any of the Project homes.</li> <li>4) <u>EV Chargers and Promotion.</u> <ol style="list-style-type: none"> <li>a. The Project applicant shall demonstrate on Project plans submitted to the County for review and approval the proposed installation of residential electrical vehicle (EV) chargers in at least 100 of the 144 homes. This mitigation involves measures beyond the required installation of charging capability (i.e., wiring) required by CALGreen Building Code.</li> <li>b. The Project applicant shall submit to the County promotional materials that specifically promote EV use through messaging (e.g., flyers, fact sheets), vehicle subsidies, and/or test-drive events specific for residents of Project homes. The Project applicant shall also submit to the County documents that quantify the number or rate of EV ownership and for all Project homes for the prior year.</li> </ol> </li> </ol>	<p>Less than Significant</p>

**TABLE 2-1 (CONTINUED)**  
**SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.6 Greenhouse Gas Emissions and Energy</b>		
<p><b>Impact GHG-1 (cont.)</b></p>	<p>The target for this measure is that at least 50 percent of residents with EV chargers (corresponding to 35 percent of project households) own an EV and use the EV for 80 percent of household driving by 2035, however, this target may vary depending on the level of implementation and resulting emissions reduction achieved by other measures in this mitigation measure.</p> <p>5) <u>Additional Energy Measures.</u></p> <p>a. <i>High-Efficiency Appliances.</i> Throughout occupancy of the Project, and if appliances are offered by homebuilders, the Project applicant shall offer homebuyers Energy Star-rated high-efficiency appliances (or other equivalent technology) that have efficiency levels at or above measures required by CALGreen, for installation in Project homes.</p> <p><b>B. Implementation, Monitoring and Enforcement.</b></p> <p>1) <u>Implementation.</u></p> <p>The Project applicant shall implement the approved GHG Reduction Plan (Plan) throughout operation of the Project.</p> <p><i>On-site Measures:</i> For physical GHG reduction measures to be incorporated into the design of the Project (Mitigation Measures GHG-1, A.2, A.3, A.4a, and A5), the measures shall be included on the drawings and submitted to the County Planning Director or his/her designee for review and confirmation prior to issuance of the first grading-related and/or building permit for horizontal construction of each of the up to three development phases proposed.</p> <p>The County Planning Director or his/her designee shall confirm completion of the implementation of these measures as part of the final inspection and prior to issuance of the final certificate of occupancy (CO) for each development phase of the Project. For operational GHG reduction measures (Mitigation Measures GHG-1, A.1 and A.4b), the measures shall be implemented on an indefinite and ongoing basis, as described in Section C.2, <i>Reporting and Monitoring</i>, of this mitigation measure.</p> <p>2) <u>Reporting and Monitoring.</u></p> <p><i>Reporting:</i> The Project applicant shall submit a GHG Reduction Report (Report) to the County Planning Director or his/her designee within one year after the County issues the final CO for each development phase of the Project. The Report shall summarize the Project's implementation of GHG reduction measures, over past, current, and anticipated Project phases, if applicable; describe compliance with the conditions of the Plan; show calculations of the emissions reduction achieved toward the minimum reduction required (182 MT CO<sub>2</sub>e /year); and include a brief summary of any revisions to the Plan since any previous Report was submitted.</p>	

**TABLE 2-1 (CONTINUED)**  
**SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.6 Greenhouse Gas Emissions and Energy</b>		
<b>Impact GHG-1 (cont.)</b>	<p>Monitoring: The County or its designee shall review the Report to verify that the Plan is being implemented in full and monitored in accordance with the terms of this mitigation measure. The Plan shall be considered fully attained when the County or its designee makes the determination, based on substantial evidence, that the proposed Project has achieved the required emissions reduction of at least approximately 182 MT CO<sub>2</sub>e /year and is unlikely to exceed the applicable significance threshold at any time in the future, after implementation of this mitigation. Enforcement: Notwithstanding the foregoing, the County retains its discretion to enforce all mechanisms under the Municipal Code and other laws to enforce non-compliance with the requirements of this mitigation measure.</p> <p>The County retains the right to request a Corrective Action Plan if the Report is not submitted, or if the GHG Reduction Measures in the Plan are not being fully implemented and/or maintained, and also retains the right to enforce provisions of that Corrective Action Plan if specified actions are not taken or are not successful at addressing the violation within the specified period of time.</p> <p>The County shall have the discretion to reasonably modify the timing of reporting, with reasonable notice and opportunity to comment by the Applicant, to coincide with other related monitoring and reporting required for the Project.</p>	
<b>Impact GHG-2:</b> The Project would not conflict with an applicable plan, policy or regulation of an appropriate regulatory agency adopted for the purpose of reducing GHG emissions. (Criterion b) (Potentially Significant)	<b>Mitigation Measure GHG-1</b> (GHG Emissions Reduction Plan) (see Impact GHG-1)	Less than Significant
<b>Impact ENE-1:</b> The Project would not result in wasteful, inefficient and unnecessary use of energy and the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. (Criteria a and b) (Less than Significant)	None required.	
<b>4.7 Hazards and Hazardous Materials</b>		
<b>Impact HAZ-1:</b> The Project would use hazardous materials (i.e., solvents) onsite during construction that could be released to the environment through improper handling or storage. (Criterion a, in part) (Potentially Significant)	<p><b>Mitigation Measure HAZ-1:</b> The use of construction best management practices shall be implemented as part of construction to minimize the potential negative effects of accidental release of hazardous materials to groundwater and soils. These shall include the following:</p> <ol style="list-style-type: none"> <li>1. Follow manufacturer's recommendations on use, storage and disposal of chemical products used in construction;</li> <li>2. Avoid overtopping construction equipment fuel gas tanks;</li> <li>3. During routine maintenance of construction equipment, properly contain and remove grease and oils; and</li> <li>4. Properly dispose of discarded containers of fuels and other chemicals.</li> </ol>	Less Than Significant

**TABLE 2-1 (CONTINUED)  
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.7 Hazards and Hazardous Materials (cont.)</b>		
<p><b>Impact HAZ-2:</b> Project operations would generate general household and maintenance hazardous waste. (Criterion a, in part) (Less than Significant)</p>	<p>None required</p>	
<p><b>Impact HAZ-3:</b> The Project would be developed where existing crude oil pipelines transect the Project site, which could present a hazard to the public or environment in the event of accidental upset. (Criterion b, in part) (Potentially Significant)</p>	<p><b>Mitigation Measure HAZ-2:</b> The Project shall ensure the following fill and excavation parameters are met to reduce the risk of damage to pipelines:</p> <ol style="list-style-type: none"> <li>1. Before the commencement of any grading activities, the tops of the five pipelines shall be accurately located on site, and confirmed to be a minimum of 6 feet below the existing ground surface. If it is determined that the any pipeline top is less than six feet below the surface, and will be at risk of impact during proposed grading excavation, one of the following additional safety measures shall be undertaken: deepening the pipeline, providing mechanical protection such as steel or concrete barriers, or elevating the proposed final road elevation.</li> <li>2. Maximum fill heights over the Santa Fe Pacific Partners L.P. ("SFPP"); Kinder Morgan Energy Partners, L.P. ("KMP"); and Crimson-Chevron KLM ("KLM") and Chevron pipelines shall exert a calculated stress of more than what the pipelines can safely tolerate, as determined by a professional engineer in accord with applicable industry standards and safety regulations based on observed pipe material and other factors</li> <li>3. Prior to final design and construction, a refined analysis of field determined bay mud thickness and bay mud consolidation properties shall be conducted. Though not anticipated, if bay mud is found to exert a calculated stress of more than what the pipeline can safely tolerate, as determined by a professional engineer in accord with applicable industry standards and safety regulations based on observed pipe material and other factors, then one or both of the following additional safety measures shall be undertaken: reduce proposed fill thickness or use lightweight fill such as cellular concrete or Geofoam encasement (or its equivalent).</li> <li>4. The as-built burial depths of the pipelines and the final proposed subgrade elevations shall result in all pipelines having a minimum burial depth in accord with prevailing regulatory code or pipe owner requirement, whichever is more stringent. If any pipeline does not have a cover in accordance with regulatory minimums, one of the following additional safety measures shall be undertaken: deepening the pipeline, providing mechanical protection such as steel or concrete barriers, or elevating the proposed final road elevation.</li> </ol>	<p>Less Than Significant</p>
<p><b>Impact HAZ-4:</b> The Project site is within the Contra Costa County Airport Land Use Plan and the Buchanan Field Airport Influence Area, and could result in a safety hazard or excessive noise for people residing in the area. (Criterion e) (Less than Significant)</p>	<p>None required</p>	

**TABLE 2-1 (CONTINUED)**  
**SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.7 Hazards and Hazardous Materials (cont.)</b>		
<b>Impact HAZ-5:</b> The Project would not 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. (Criterion g.) (Less than Significant)	None required	
<b>Impact C-HAZ-1:</b> The Project, in conjunction with cumulative development, would not result in cumulative impacts related to hazards and hazardous materials to which the Project would have a cumulatively considerable contribution. (All Criteria) (Less than Significant)	None required	
<b>4.8 Hydrology and Water Quality</b>		
<b>Impact HYD-1:</b> The Project could result in an increase of stormwater pollutants due to construction activities and/or the introduction of new impervious surfaces, but would not violate any water quality standards or waste discharge requirements. (Criterion 1) (Potentially Significant)	<b>Mitigation Measure BIO-6a</b> (Protection of Jurisdictional Wetlands and Other Waters) (see Impact BIO-6)	Less Than Significant
<b>Impact HYD-2:</b> The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that it would impede sustainable groundwater management of the basin. (Criterion 2) (Less than Significant)	None required	
<b>Impact HYD-3:</b> The Project would not substantially alter the drainage pattern of the site such that it would result in substantial erosion or siltation onsite or offsite. (Criterion 3.a) (Less than Significant, No Mitigation Required)	None required	
<b>Impact HYD-4:</b> The Project would not substantially alter the drainage pattern of the site or surrounding areas such that it would result in flooding on- or off-site. (Criterion 3.b) (Less than Significant)	None required	
<b>Impact HYD-5:</b> The Project would not create or contribute runoff water which would exceed the capacity of existing or planned drainage systems, or provide substantial additional sources of polluted runoff. (Criterion 3.c) (Less than Significant)	None required	
<b>Impact HYD-6:</b> The Project could develop structures which would impede or redirect flood flows. (Criteria 3.d.) (Less than Significant)	None required	

**TABLE 2-1 (CONTINUED)**  
**SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.8 Hydrology and Water Quality (cont.)</b>		
<b>Impact HYD-7:</b> The Project could conflict with a water quality control plan or sustainable groundwater management plan. (Criterion 5) (Less than Significant)	None required	
<b>Impact C-HYD-1:</b> The Project, in conjunction with cumulative development, would not result in cumulative impacts with respect to hydrology and water quality to which the Project would have a cumulatively considerable contribution. (All Criteria) (Less than Significant)	None required	
<b>4.9 Land Use, Plans and Policies</b>		
<b>Impact LUP-1:</b> The Project would not divide an established community. (Criterion a) (Less than Significant)	None required	
<b>Impact LUP-2:</b> The Project, including the proposed amendments to the General Plan and zoning designation, would not conflict with adopted applicable land use plans and policies such that the Project is inconsistent with the General Plan. (Criterion b) (Less than Significant)	None required	
<b>Impact C-LUP-1:</b> Development of the Project, in combination with past, present, existing, approved, pending and reasonably foreseeable future projects within and in the vicinity of the Project site, would not result in significant cumulative impacts to land use and planning. (All Criteria) (Less Than Significant)	None required	
<b>4.10 Noise</b>		
<b>Impact NOI-1:</b> Construction of the Project would result in a temporary increase in ambient noise levels. (Criterion a) (Potentially Significant)	<b>Mitigation Measure NOI-1:</b> The applicant shall create and implement a development-specific noise reduction plan to reduce noise at sensitive receptors along Central Avenue to below 75 dBA Lmax, which shall be enforced via contract specifications. Contractors may elect any combination of legal, non-polluting methods to maintain or reduce construction-related noise to threshold levels or lower, as long as those methods do not result in other significant environmental impacts or create a substantial public nuisance. Examples of measures that can effectively reduce noise impacts include locating equipment in shielded and/or less noise-sensitive areas, selection of equipment that emits low noise levels, and/or installation of noise barriers such as enclosures to block the line of sight between the noise source and the nearest receptors. Other feasible controls could include, but shall not be limited to, fan silencers, enclosures, and mechanical equipment screen walls. In addition, the applicant shall require contractors to limit construction activities in the northernmost 500 feet of the project site to daytime hours between 7:30 am and 5:30 pm Monday through Friday. The plan for attenuating construction-related noises shall be implemented prior to the initiation of any work that triggers the need for such a plan.	Less than Significant

**TABLE 2-1 (CONTINUED)**  
**SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.10 Noise (cont.)</b>		
<b>Impact NOI-2:</b> Project operations could cause a long-term increase in ambient noise levels in the Project site vicinity. (Criterion a) (Less Than Significant)	None required	
<b>Impact NOI-3:</b> Project construction could generate ground-borne vibration. (Criterion c) (Less Than Significant)	None required	
<b>Impact C-NOI-1:</b> Project construction activities, in conjunction with construction noise from cumulative development noise in the vicinity of the Project site, could cause a substantial temporary or periodic increase in ambient noise levels in the Project site vicinity during construction. (Criterion a) (Potentially Significant)	<b>Mitigation Measure NOI-1</b> (Construction Noise) (see Impact NOI-1)	Less than Significant
<b>Impact C-NOI-2:</b> Operation of the proposed Project, in conjunction with cumulative development, would not cause a substantial permanent increase in ambient noise levels in the Project vicinity. (Criterion a) (Less Than Significant)	None required	
<b>4.11 Population and Housing</b>		
<b>Impact POP-1:</b> The Project would not directly or indirectly induce substantial population growth. (Criterion a.) (Less than Significant)	None required	
<b>Impact C-POP-1:</b> The Project, in conjunction with cumulative development, would not result a significant cumulative impact by directly or indirectly causing substantial growth, and to which the Project would have a cumulatively considerable contribution. (All Criteria) (Less Than Significant)	None required	
<b>4.12 Public Services and Recreation</b>		
<b>Impact PUB-1:</b> The Project would increase the demand for fire protection and emergency medical services, but would not result in the need for new or physically altered facilities, the construction of which would cause significant environmental impacts. (Criterion a.1) (Potentially Significant)	<b>Mitigation Measure PUB-1:</b> The Project applicant shall equip all dwelling units with residential automatic fire sprinkler systems, complying with the 2016 edition of the National Fire Protection Association Standard 13D, or otherwise most current edition, subject to the review and approval of the Contra Costa County Fire Protection District.	Less Than Significant
<b>Impact PUB-2:</b> The Project would increase the demand for police protection services, but would not result in the need for the provision of new or physically altered facilities, the construction of which would cause significant environmental impacts. (Criterion a.2) (Less than Significant)	None required	

**TABLE 2-1 (CONTINUED)**  
**SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.12 Public Services (cont.)</b>		
<b>Impact PUB-3:</b> The Project would increase the demand for public school services, but would not result in the need for the provision of new or physically altered facilities. (Criterion a.3) (Less than Significant)	None required	
<b>Impact PUB-4:</b> The Project would increase the demand for child care services, but would not result in the need for the provision of new or physically altered facilities. (Criterion a.4) (Less than Significant)	None required	
<b>Impact PUB-5:</b> The Project would increase the use of existing parks or other recreational facilities, but not such that substantial physical deterioration would occur or new or expanded facilities would be required. (Criteria b and c) (Less than Significant)	None required	
<b>Impact C-PUB-1:</b> The Project, in conjunction with cumulative development, would not result in cumulative impacts on public services and recreation to which the Project would have a cumulatively considerable contribution. (All Criteria) (Less than Significant)	None required	
<b>4.13 Transportation</b>		
<b>Impact TRF-1:</b> Project construction would result in temporary increases in truck traffic and construction worker traffic. (Criterion a) (Potentially Significant)	<p><b>Mitigation Measure TRF-1:</b> The Project applicant and construction contractor(s) shall develop and submit a Construction Management and Traffic Control Plan for the review and approval of the County's Public Works Department. The Construction Management and Traffic Control Plan shall be submitted to the Public Works Department a minimum of 60 days prior to the initiation of construction activities:</p> <ul style="list-style-type: none"> <li>• A set of comprehensive traffic control measures, including scheduling of major truck trips to avoid peak traffic hours, types of vehicles and maximum speed limits for each type of vehicle, expected daily truck trips, staging areas, emergency routes and access, detour signs if required, lane closure procedures, flag person requirements, signs, cones for drivers, a street sweeping plan and designated construction access routes.</li> <li>• Identification of roadways to be used for the movement of construction vehicles to minimize impacts on motor vehicle, bicycle and pedestrian traffic, circulation and safety, and specifically to minimize impacts to the greatest extent possible on streets in the Project area.</li> <li>• Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures would occur.</li> </ul>	Less Than Significant

**TABLE 2-1 (CONTINUED)**  
**SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.13 Transportation (cont.)</b>		
<p><b>Impact TRF-2:</b> Project-generated increases in heavy truck traffic on area roadways during Project construction could result in substantial damage to or wear of public roadways. (Criterion a) (Potentially Significant)</p>	<p><b>Mitigation Measure TRF-2:</b> Prior to commencement of Project construction activities, which would include any construction-related deliveries to the site, the Project applicant shall document to the satisfaction of the Contra Costa County Public Works Department, the road conditions of the construction route that would be used by Project construction-related vehicles. The Project applicant shall also document the construction route road conditions after Project construction has been completed. The Project applicant shall repair roads that are damaged by construction related activities to County standards and to a structural condition equal to that which existed prior to construction activity. As a security to ensure that damaged roads are adequately repaired, the Project applicant shall make an initial monetary deposit, in an amount to be determined by the Department of Public Works, to an account to be used for roadway rehabilitation or reconstruction. If the County must ultimately undertake the road repairs, and repair costs exceed the initial payment, then the Project applicant shall pay the additional amount necessary to fully repair the roads to pre-construction conditions.</p>	Less than Significant
<p><b>Impact TRF-3:</b> Total Home-Based VMT per resident generated by the Project would be greater than 15 percent below the regional VMT for similar uses in Contra Costa County, resulting in a significant impact for the Project. (Criterion b) (Significant)</p>	<p><b>Mitigation Measure TRF-3:</b> Transportation and Parking Demand Management (TDM) Plan. Prior to issuance of building permits, the project applicant shall develop a TDM program for the proposed project, including any anticipated phasing, and shall submit the TDM Program to the County Department of Conservation and Development for review and approval. The TDM Program shall identify trip reduction strategies as well as mechanisms for funding and overseeing the delivery of trip reduction programs and strategies. The TDM Program shall be designed to achieve the trip reduction, as required to reduce the VMT per resident from 20.6 to 16.5 consistent with a 20 percent reduction in the near-term.</p> <p>Trip reduction strategies may include, but are not limited to, the following:</p> <ol style="list-style-type: none"> <li>1. Pedestrian improvements, on-site or off-site, to connect to existing and planned pedestrian facilities, nearby transit stops, services, schools, shops, etc.</li> <li>2. Bicycle network improvements, on-site or off-site, to connect to existing and planned bicycle facilities, nearby transit stops, services, schools, shops, etc.</li> <li>3. Enhancements to bus service during peak commute times</li> <li>4. Compliance with a future County VMT/TDM ordinance</li> <li>5. Participation in a future County VMT fee program</li> </ol>	Significant and Unavoidable
<p><b>Impact TRF-4a:</b> The Project would increase traffic volumes on residential roadway segments near the Project site resulting in obstacles (or hazards) for project vehicle traffic. (Criterion c) (Potentially Significant)</p>	<p><b>Mitigation Measure TRF-4:</b> In accordance with County requirements and design standards provide even surface pavement, appropriate signage, delineation, and other features on Palms Drive (and Central Avenue if it becomes a public street) to improve vehicle transportation conditions and eliminate obstacles (or hazards).</p>	Less than Significant
<p><b>Impact TRF-4b:</b> The Project would not have adverse impacts to the project site's vehicle system. (Criterion c) (Less than Significant)</p>	None required	

**TABLE 2-1 (CONTINUED)**  
**SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.13 Transportation (cont.)</b>		
<b>Impact TRF-5:</b> The Project could increase ridership on public transit serving the Project area. (Criterion a) (Less than Significant)	<b>None required</b>	
<b>Impact TRF-6:</b> The Project would increase the pedestrian and bicycle activity that would be incompatible with the existing infrastructure by exposing users to hazards and safety conflicts. (Criterion a) (Potentially Significant)	<b>Mitigation Measure TRF-6:</b> In accordance with County requirements and design standards, the project applicant shall provide: <ul style="list-style-type: none"> <li>• Continuous sidewalks on at least one side of Palms Drive and Central Avenue to connect the project site to the existing pedestrian facilities on Arthur Road to improve pedestrian transportation conditions.</li> <li>• Even surface pavement, appropriate signage, delineation, and other features on Palms Drive and Central Avenue to improve bicycle transportation conditions.</li> <li>• Sidewalks for all streets within the project site including facilities on both sides of each street and curb ramps at each street intersection.</li> </ul>	Less than Significant
<b>Impact TRF-7a:</b> Emergency access to the Project site would be through existing streets that would be incompatible with the existing transportation infrastructure by exposing emergency vehicles to hazards. (Criterion d) (Potentially Significant)	<b>Mitigation Measure TRF-7a:</b> In accordance with County requirements and design standards, the project applicant shall provide even surface pavement, appropriate signage, delineation, and other features on Palms Drive and Central Avenue to accommodate emergency vehicles.	Less Than Significant
<b>Impact TRF-7b:</b> The Project would not have adverse impacts to the project site's emergency vehicle system. (Criterion d) (Less than Significant)	<b>None required</b>	
<b>Impact C-TRF-8:</b> The Project with a General Plan amendment would increase the Countywide VMT, resulting in a significant impact for the Project. (Significant)	<b>Mitigation Measure TRF-3</b> (Transportation and Parking Demand Management [TDM] Plan) (see <b>Impact TRF-3</b> )	Significant and Unavoidable
<b>4.14 Utilities and Service Systems</b>		
<b>Impact UTIL-2:</b> The Project would require or result in construction of new or expanded water facilities, the construction of which would cause significant environmental effects. (Criteria b) (Potentially Significant)	<b>Mitigation Measure UTIL-2:</b> The Project sponsor shall implement the following mitigation measures for construction-related effects from installation and expansion of the proposed new waterline: <ol style="list-style-type: none"> <li>a) <b>Mitigation Measure AIR-1</b> (Best Management Practices for Controlling Particulate Emissions)</li> <li>b) <b>Mitigation Measure BIO-2a</b> (Worker Environmental Awareness Program Training) (see Impact BIO-2)</li> <li>c) <b>Mitigation Measure BIO-2b</b> (General Conservation Measures during Construction) (see Impact BIO-2)</li> <li>d) <b>Mitigation Measure BIO-6a</b> (Protection of Jurisdictional Wetlands and Other Waters) (see Impact BIO-6)</li> <li>e) <b>Mitigation Measure CUL-1a</b> (Prehistoric or Historic-Period Archaeological Resources) (see Impact CUL-1)</li> </ol>	Less Than Significant

**TABLE 2-1 (CONTINUED)**  
**SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance before Mitigation	Mitigation Measures and Improvement Measures	Significance After Mitigation
<b>4.14 Utilities and Service Systems (cont.)</b>		
<b>Impact UTIL-2 (cont.)</b>	f) <b>Mitigation Measure CUL-1b</b> (Human Remains) (see Impact CUL-1) g) <b>Mitigation Measure GEO-2</b> (Design-level Geotechnical Compliance) (see Impact GEO-3) h) <b>Mitigation Measure GEO-3</b> (Fill Placement) i) <b>Mitigation Measure GEO-4</b> (Terraced Slopes/Drainage) j) <b>Mitigation Measure GEO-5</b> (Paleontological Resources Treatment) k) <b>Mitigation Measure HAZ-1</b> (Release of Hazardous Materials) (see Impact HAZ-1) l) <b>Mitigation Measure HAZ-2</b> (Pipeline Damage Risk) (see Impact HAZ-2) m) <b>Mitigation Measure NOI-1</b> (Construction Noise) (see Impact NOI-1) n) <b>Mitigation Measure TRF-1</b> (Construction Traffic) (see Impact TRF-1) o) <b>Mitigation Measure TRF-2</b> (Public Roadway Damage or Wear) (see Impact HAZ-2)	
<b>Impact UTIL-3:</b> The Project would require or result in construction of new or expanded stormwater drainage facilities, the construction of which could cause significant environmental effects. (Criterion c) (Potentially Significant)	<b>Mitigation Measure UTIL-2</b> (New Waterline Construction) (see Impact UTIL-2)	Less Than Significant
<b>Impact UTIL-4:</b> The Project would generate demand for wastewater utility service, and would result in the expansion of the existing wastewater collection system, the construction of which would not cause significant environmental effects. (Criteria a, b, and e) (Potentially Significant)	<b>Mitigation Measure UTIL-2</b> (New Waterline Construction) (see Impact UTIL-2)	Less Than Significant
<b>Impact UTIL-5:</b> The Project would generate solid waste, but would not exceed the permitted capacity of the landfill serving the Project site, and would comply with federal, state and local statutes and regulations related to solid waste. (Criteria f and g) (Less than Significant)	None required	
<b>Impact C-UTIL-1:</b> The Project, in conjunction with cumulative development, would not result in cumulative impacts on utilities and service systems to which the Project would have a cumulatively considerable contribution. (All Criteria) (Less than Significant)	None required	

## 2.4 Alternatives

Chapter 5 of this Draft EIR analyzes the following range of alternatives to the proposed Project to address its environmental effects and consider a non-residential land use scenario consistent with the existing General Plan and zoning designations:

- **Alternative 1: No Project / Existing Conditions** – Under this alternative, the proposed Project would not be undertaken and no change would occur on the Project site, and no change to the existing General Plan or zoning designations would occur. Although it is reasonable to assume that the Project site would eventually be developed, no other proposals are currently under consideration. Therefore, if the County does not approve the proposed Project, the No Project Alternative assumes no change in the existing environmental setting, the Project site would remain in its current undeveloped state.
- **Alternative 2: Reduced Grading / 50 Percent Density (72 units)** – Under this alternative, one-half of the residential development would occur - a total of 72 new single-family units on the Project site. The distribution of the 72 residential lots would be reconfigured within the Project site such that the developable area would also be reduced by more than 50 percent. Steep (2:1) slopes created by site grading would be limited to a maximum height of 15 feet, thereby avoiding the need for drainage terraces on high cut slopes, like those proposed by the Project. Also, an existing valley oak woodland on the mid-slope of Vine Hill would be retained under this alternative, compared to the Project’s removal of up to approximately 30 of the 34 protected native oaks that exist on the north side of Vine Hill.
- **Alternative 3: Reduced Grading / Light Industrial** – Under this alternative, the land use development would be a relatively low intensity of light industrial uses, such as self-storage or recreational vehicle storage similar to existing uses in the nearby area. Central Avenue would serve as the only access point to the site; there would be no access from Palms Drive, unlike the proposed Project’s access. Also, like Alternative 2 and counter to the proposed Project, the developable area under this alternative would be reduced by approximately 50 percent, and the steepness of graded site slopes would avoid the need for drainage terraces on high cut slopes. Also like Alternative 2, the existing valley oak woodland on the mid-slope of Vine Hill would be retained, compared to the Project’s removal of up to approximately 30 of the 34 protected native oaks that exist on the north side of Vine Hill.

### 2.4.1 Environmentally Superior Alternative

Alternative 1 (No Project / Existing Conditions) would be environmentally superior to the proposed Project on the basis of it minimizing or avoiding physical environmental impacts. However, pursuant to CEQA, when a no project scenario is determined to most substantially reduce or avoid the significant impacts identified with a proposed project, a second most environmental superior alternative must be identified. Alternative 3 is considered environmental superior because it avoids a significant and unavoidable impact of the proposed Project that no other analyzed alternative avoids (except the no project): Impact C-TRF-8 regarding the Projects contribution to cumulative vehicle miles traveled (VMT). Moreover, Alternative 3 avoids other less-than-significant impacts that result with the Project, including impacts that warranted mitigation with the Project and Alternative 2. The discussion in Chapter 5 acknowledges that, while environmentally superior for physical environmental effects under CEQA, Alternative 3 would not meet the fundamental Project objective of developing residential use at the Project site.

## 2.5 Areas of Controversy

CEQA *Guidelines* Section 15123 specifies that the EIR summary shall identify “areas of controversy” known to the Lead Agency, including issues raised by agencies and the public, and issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects. Public agencies, representatives of organization, and private citizens commented during the scoping process in response to the NOP (see **Appendix A**, Notice of Preparation and EIR Scoping Comments, to this document). Listed below are the primary themes raised in the written and oral comments received during the scoping process. To the extent these themes pertain to environmental effects addressed under CEQA, they are addressed in this Draft EIR.

- Adequacy of utilities infrastructure and placement
- Adequate vehicular access to the Project site
- Change of existing views to visual resource
- Land use compatibility with existing industrial uses
- Stormwater management
- Effects on local wildlife and habitats
- Increased traffic on local private and County roads
- Capacity of public services

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