

## 2.0 EXECUTIVE SUMMARY

### 2.1 PROJECT UNDER REVIEW

The Ball Estates project (project) is a proposed 35 single-family custom home development that would subdivide an existing approximately 61-acre site in Alamo, an unincorporated area of Contra Costa County (County). The project applicant, Camille Avenue, LLC, and Camille Ironwood Properties, LLC, is requesting a vesting tentative map, which includes a subdivision for 35 residential lots, a tree permit, a variance for an 8-foot fence, and an exception to the creek structure setback. The residential lots would be constructed on approximately 20 acres in the lower northeastern portion of the site. The rest of the site, approximately 41 acres, would remain open space. A staging (parking) area that would provide access to local trails is also proposed. The construction of roads, utilities, and ancillary services associated with the residential homes is considered as part of the project.

### 2.2 SUMMARY OF IMPACTS AND MITIGATION MEASURES

The California Environmental Quality Act (CEQA) requires the executive summary to include a discussion of: 1) potential areas of controversy; 2) significant impacts; 3) significant unavoidable impacts; and 4) alternatives to the project. Under CEQA, a significant impact on the environment is defined as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by a project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.”

Based on the analysis completed for this draft environmental impact report (draft EIR), impacts in the following resource areas would be considered significant without the implementation of mitigation measures:

- Aesthetics: New homes on the project site may conflict with the visual character in the area and produce new sources of light and glare.
- Agriculture and Forestry: The project would result in the loss of forest land at the project site.
- Air Quality: Site preparation and grading would temporarily generate fugitive dust.

- Biological Resources: Project construction may result in impacts to special-status wildlife, aquatic habitat, and protected trees.
- Cultural and Tribal Cultural Resources: Project construction may encounter previously undiscovered cultural resources.
- Geology and Soils: The project may be subject to geologic hazards.
- Greenhouse Gas Emissions: The project could conflict with the applicable Climate Action Plan.
- Hazards and Hazardous Materials: Project construction could mobilize residual agrichemicals or hazardous building materials.
- Noise: Sensitive receptors adjacent to the project site will be exposed to construction noise.

## 2.3 POTENTIAL AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

On August 27, 2013, the County filed a Notice of Preparation (NOP) with the Governor's Office of Planning and Research. During the 30-day comment period (ending September 26, 2013), written comments regarding the scope and content of this draft EIR were received from regulatory agencies and the public. Additionally, a scoping session on this draft EIR was held on September 16, 2013, at the County Department of Conservation and Development in Martinez, California. All written and oral comments received during the comment period and scoping session were considered in the preparation of this draft EIR. Potential areas of controversy identified during the scoping period and evaluated in **Chapter 4.0, Setting, Impacts, and Mitigation Measures**, of this draft EIR include:

- Adequate emergency vehicle access
- Loss of privacy resulting from the removal of existing trees
- Maintenance of private streets and easement areas
- Impacts on the capacity and reliability of existing utilities and public services
- Construction-related noise and vibration impacts
- Impacts to sensitive biological resources and habitat, including wetlands and drainage areas on the project site
- Recreational access to the Las Trampas Regional Wilderness
- Increased traffic and illegal parking on Camille Avenue

- Pedestrian and bicyclist safety at the Iron Horse Trail crossing due to increased vehicle activity on Camille Avenue and Camille Lane
- Possible slope failure and stabilization
- Exposure to potential hazardous substances in soil and groundwater
- Impairment of solar access associated with new elevated structures.

## 2.4 SIGNIFICANT UNAVOIDABLE IMPACTS

There were no significant unavoidable impacts relating to any of the environmental topics evaluated in this draft EIR.

## 2.5 ALTERNATIVES TO THE PROJECT

### 2.5.1 ALTERNATIVE 1 – NO BUILD ALTERNATIVE

Under Alternative 1, the project site would remain in its current state and there would be no development of a residential subdivision. The existing structures on the site would remain, including the office building. Unstable fill slopes near the estate home and east of the office building would remain, and open space areas would remain in their current condition. No staging area to facilitate access to the Madrone Trail would be constructed and street parking along Camille Avenue for trail access would continue.

### 2.5.2 ALTERNATIVE 2 – WETLAND AVOIDANCE ALTERNATIVE

This alternative would completely avoid direct impacts to Wetlands 1, 2, and 3 (see **Figure 4.10-1** and **Section 4.4, Biological Resources**). Wetland 1 is an isolated feature located on the western portion of proposed Lot 9 and the adjacent proposed Parcel C. Wetlands 2 and 3 are located on the southeastern portion of the project site between proposed Lots 16, 17, 18, and 19. These wetlands are associated with culverted discharge from Drainage 2, which occupies a portion of proposed Lot 27. In total, Wetland 1 represents 0.62 acre of freshwater wetland habitat, and Wetlands 2 and 3 represent 0.173 acre of freshwater wetland habitat.

Alternative 2 proposes eliminating proposed Lots 16, 17, 18, and 19 to prevent fill within Wetlands 2 and 3. Proposed Lot 27 could be sited to avoid hydrologic modifications to Drainage 2 and Wetlands 2 and 3, and proposed Lot 9 would be modified to ensure Wetland 1 has an adequate buffer (typically 50 to 100 feet) from any new structure. With preservation of proposed Lots 16, 17, 18, 19 and portions

of proposed Lots 9 and 27, the remainder of the development area could be developed with 35 single-family homes to a density of approximately 2.0 dwelling units per acre. This density is compatible with the development area's Single Family Residential – Low Density land use designation, which allows up to 2.9 dwelling units per acre. Like the proposed project, this alternative would retain the Parcel D staging area.

### **2.5.3 ALTERNATIVE 3 - LOT 21 STAGING AREA**

Under this alternative, a staging area site would be located on proposed Lot 21 instead of proposed Parcel D. Unrestricted access to the Lot 21 staging area would be provided at the Camille Avenue cul-de-sac, and the existing pedestrian trail along Camille Lane would provide hiker and equestrian access to Madrone Trail. Proposed Lot 28 would be split into two lots so the project site could still accommodate 35 dwelling units. Parcel D would remain undeveloped and would merge into the proposed Parcel C open space maintained by the homeowners association (HOA) or future property owners. In order to permit this option, an exception to the County Subdivision Ordinance would be needed, as the County ordinance require a 30-foot setback from the physical tops of creek banks, whereas the staging area footprint on Lot 21 would be located as close as 10 feet to one of the project site's drainages.

**Table 2-1 Summary of Impacts and Mitigation Measures**

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>Aesthetics</b>			
<p>Impact AES-1: New homes on the project site could conflict with the character of existing residential neighborhoods in the area.</p>	<p>Significant</p>	<p><u>Mitigation Measure AES-1:</u> Custom homes must undergo an administrative design review, as required by conditions of approval, to ensure consistency with the existing character of the surrounding area. This process would examine elements of each proposed custom home, including size, scale, massing, setback, and color. In addition, the HOA Design Review Guidelines and Landscape Design Plan will include specific provisions regarding setbacks, backyard structures, and vegetative buffers along the perimeter of Madrone Trail. Compliance with these procedures will be required by the project’s covenants, conditions, and restrictions, which will be reviewed by the County.</p>	<p>Less than Significant</p>
<p>Impact AES-2: New exterior lighting from the project could adversely impact nighttime views in the area.</p>	<p>Significant</p>	<p><u>Mitigation Measure AES-2:</u> A lighting plan for any proposed exterior lighting must be submitted to the Contra Costa County Department of Conservation and Development, Community Development Division for review and approval.</p> <p>Exterior lighting must be directed downward and away from adjacent properties and public/private right-of-way to prevent glare or excessive light spillover. Lighting bulbs must be limited to low intensity lights, including lighting for identification purposes.</p> <p>No free standing light poles will be allowed within the residential property. Landscaping lights must be limited ground-level for walking/safety purposes.</p> <p>If any lighting is proposed for the staging area, lighting must be also directed downward and away from adjacent properties. Lighting intensity may not be greater than what is reasonably required to safely illuminate the staging area.</p>	<p>Less than Significant</p>

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>Agriculture and Forestry</b>			
Impact AG-1: Implementation of the project would result in the loss of forest land at the project site and thus would conflict with forest land zoning as established by California Public Resources Code 12220(g).	Significant	See <u>Mitigation Measure BIO-8</u>	Less than Significant
<b>Air Quality</b>			
Impact AQ-1: Site preparation and grading would temporarily generate fugitive dust in the form of PM <sub>10</sub> and PM <sub>2.5</sub> .	Significant	<p><u>Mitigation Measure AQ-1</u>: The contractor will adhere to the following best management practices during construction:</p> <ul style="list-style-type: none"> <li>▪ 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>▪ All haul trucks transporting soil, sand, or other loose material offsite shall be covered.</li> <li>▪ 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>▪ All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.</li> <li>▪ 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>▪ 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, Section 2485 of CCR). Clear signage shall be provided for construction workers at all access points.</li> <li>▪ All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a</li> </ul>	Less than Significant

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>certified mechanic and determined to be running in proper condition prior to operation.</p> <ul style="list-style-type: none"> <li>Post a publicly visible sign with the telephone number and person to contact at the construction contractor's office regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.</li> </ul>	
<b>Biological Resources</b>			
<p>Impact BIO-1: Grading and construction of the project has the potential to result in harm or mortality to individual Alameda whipsnake, if present in woodpiles or under other debris along the western boundary of the project site.</p>	<p>Significant</p>	<p><u>Mitigation Measure BIO-1a</u>: The project proponent shall consult with the USFWS and CDFW regarding potential impacts of the project on Alameda whipsnake, and shall obtain the appropriate take authorization (Section 7 Biological Opinion and/or 2081 permit or 2080.1 consistency determination) as specified by the USFWS and CDFW prior to initiation of construction activities. The project proponent shall comply with all terms of the endangered species permits, including any mitigation requirements, and provide evidence of compliance to the County prior to issuance of a grading permit.</p> <p><u>Mitigation Measure BIO-1b</u>: In order to allow any snakes and lizards that currently use the small woodpiles west of the residence to seek alternative cover, the woodpiles shall be removed gradually and under the supervision of an agency-approved biologist prior to the start of construction. Depending upon the size of the woodpiles, a quarter to a third of the piles should be manually removed every five days. In addition, an agency-approved biologist shall monitor removal of the eucalyptus trees and construction of the wetland mitigation area in the western portion of the project site, if wetland restoration or tree removal in this area is conducted (see <b>Mitigation Measure BIO-6b</b>).</p> <p><u>Mitigation Measure BIO-1c</u>: A preconstruction survey for Alameda whipsnake shall be conducted by a 10(a)(1)(A)</p>	<p>Less than Significant</p>

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>permitted biologist not more than 24 hours prior to the start of any site disturbance activities. All suitable habitat features that may be used by Alameda whipsnake shall be identified, marked, and mapped during the preconstruction survey. The removal or destruction of suitable habitat features and all initial ground disturbances (e.g. clearing and grubbing) shall be conducted under the direct supervision of the agency approved biologist prior to the onset of site grading. If Alameda whipsnake are detected within the project work area, site disturbance shall be halted until the snake has been relocated by a 10(a)(1)(A) permitted biologist as approved and directed by the USFWS and CDFW. Terms of the salvage shall be established in consultation with USFWS and CDFW prior to initiation of construction activities, and approved relocation may be in suitable habitat in the open space and critical habitat area west of the project site.</p> <p><u>Mitigation Measure BIO-1d</u>: Upon completion of the preconstruction survey, a snake exclusion fence not less than 4 feet in height with one-way exit funnels (to allow Alameda whipsnake to passively move out of the construction zone), and buried at least 4 inches in the ground shall be installed around the southern and western boundaries of the project development site. The fence shall be installed under the guidance of an agency approved biologist who is knowledgeable about Alameda whipsnake, and shall be maintained until all vegetation removal and earthwork for the project has been completed. The fence shall be inspected by the construction team on a daily basis (i.e., every workday), and repairs shall be made immediately if the integrity of the fence is compromised.</p> <p><u>Mitigation Measure BIO-1e</u>: All construction personnel shall attend an informational training session conducted by an agency approved biologist prior to the start of any site disturbance activities, including demolition. This session will cover identification of the species and procedures to be followed if an individual is found onsite, as well as biology and</p>	

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		<p>habitat needs of this species. Handouts will be provided and extra copies will be retained onsite. Construction workers shall sign a form stating that they attended the program and understand all protection measures for the Alameda whipsnake. Additional training sessions will be provided to construction new personnel during the course of construction.</p> <p><u>Mitigation Measure BIO-1f:</u> Trenches or pits greater than 1 foot deep that are created during earthwork for the project shall be covered with plywood or an earthen ramp will be made each night after work so no organisms are trapped. Trenches and pits shall be inspected by a designated member of the construction team who has been trained by the agency-approved biologist prior to the start of earthwork each day. Any vertebrate organisms observed in such areas shall be allowed to escape to the safety of adjacent cover.</p> <p><u>Mitigation Measure BIO-1g:</u> Best Management Practices shall be implemented to minimize the potential mortality, injury, or other impacts to Alameda whipsnake. Erosion control materials shall not include small-mesh plastic netting, which could result in entanglement and death. All food trash items shall be removed from the project site daily to reduce the potential for attracting predators of Alameda whipsnake which could scavenge uncovered snakes.</p> <p><u>Mitigation Measure BIO-1h:</u> An agency approved biological monitor knowledgeable about Alameda whipsnake will be the point of contact for the construction team. The USFWS will be notified immediately if Alameda whipsnakes are detected within the project site. The CDFW will also be notified after contacting the USFWS.</p>	

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<p>Impact BIO-2: Construction of the project during nesting season has the potential to result in a take of protected birds or create disturbance that could result in nest abandonment.</p>	<p>Significant</p>	<p><u>Mitigation Measure BIO-2</u>: If construction-related site disturbance commences between February 1 and August 31, a qualified biologist shall conduct a pre-construction bird nesting survey. If nests of either migratory birds or birds of prey are detected on or adjacent to the site, a no-disturbance buffer (generally 50 feet for passerines, 0.5 mile for golden eagle, 1,000 feet for Swainson’s hawk, and 300 feet for other raptors) in which no new site disturbance is permitted shall be observed up to August 31, or until the qualified biologist determines that the young are foraging independently. The size of the no-disturbance buffer shall be determined by a qualified biologist, and shall take into account local site features and existing sources of potential disturbance. If more than 15 days elapse between the survey and the start of construction, the survey shall be repeated. If vegetation removal, building demolition, or earthwork stages are phased over multiple years, the pre-construction survey and nest-avoidance measures described above would need to be repeated.</p>	<p>Less than Significant</p>
<p>Impact BIO-3: Building demolition and tree removal could result in a take of roosting bats, including a maternity colony, if present.</p>	<p>Significant</p>	<p><u>Mitigation Measure BIO-3a</u>: A qualified biologist knowledgeable about local bat species and experienced with bat survey methods shall inspect all structures and trees that could support bats at the project site prior to the start of site disturbance (e.g., demolition, vegetation removal, and earthwork). Surveys should be conducted during appropriate weather to detect bats (i.e., not in high winds or during heavy rain events). One daytime and up to two nighttime surveys (starting at least 1 hour prior to dusk) should be conducted to determine if bats are present. If bats are detected, additional surveys utilizing acoustic monitoring or other methods may be necessary depending on the recommendations of the bat biologist.</p> <p><u>Mitigation Measure BIO-3b</u>: Preconstruction surveys for bats should be conducted within two weeks prior to the removal of any trees or structures that are deemed to have potential bat</p>	<p>Less than Significant</p>

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		<p>roosting habitat. If bats are detected on site and would be impacted by the project, then appropriate mitigation measures would be developed with approval from CDFW. Mitigation measures would include one or more of the following methods: using one-way doors to exclude non-breeding bats, opening up roof areas of structures to allow airflow that would deter bats from roosting, and taking individual trees down in sections to encourage bats to relocate to another roost site. Typically this work is conducted in the evening when bats are more active, and this work should be conducted under the guidance of an experienced bat biologist.</p> <p><u>Mitigation Measure BIO-3c:</u> Mitigation for impacts to a maternity bat roost, if detected, would be determined through consultation with CDFW and may include construction of structures that provide suitable bat roosting habitat (i.e., bat houses, bat condos) for the particular species impacted.</p>	
<p>Impact BIO-4: Project construction activities (i.e., ground disturbance, vegetation removal, and earthwork) could result in the take of an active San Francisco dusky-footed wood rat lodge.</p>	<p>Significant</p>	<p><u>Mitigation Measure BIO-4:</u> Not more than 30 days before initial ground disturbance, a qualified biologist shall conduct a survey of the project site to determine whether San Francisco dusky-footed woodrat lodges have been constructed within the work area. If no woodrat lodges are present within the work area, no further mitigation is required. If San Francisco dusky-footed woodrat lodges are observed within the area subject to ground disturbance, a woodrat mitigation plan describing habitat enhancement and relocation of the lodge(s) to an area not subject to site disturbance within the project site or the remainder parcel shall be prepared and submitted to CDFW for approval prior to the start of ground disturbance.</p>	<p>Less than Significant</p>
<p>Impact BIO-5: If American badger establishes dens within the project site, construction activities could result in the take of an active den.</p>	<p>Significant</p>	<p><u>Mitigation Measure BIO-5:</u> A qualified biologist shall conduct a preconstruction survey for the American badger within 14 days prior to the start of construction. If no potential dens are found, no additional measures are required. If an active badger den is found, consultation with CDFW would be</p>	<p>Less than Significant</p>

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		<p>required. Construction would be halted within 100 feet of the den during the breeding season (summer through early fall), and hand excavation of dens during the non-breeding period would be required subject to CDFW approval.</p>	
<p>Impact BIO-6: The project would require the filling and daylighting of drainages and seasonal wetlands onsite.</p>	<p>Significant</p>	<p><u>Mitigation Measure BIO-6a</u>: The removal of riparian trees and shrubs will be avoided and minimized to the extent feasible. Hazard reduction associated with structurally unsound trees, and the risks of failure given proximity to improvements proposed in the project, shall be considered and addressed through tree removals and pruning specified by a certified arborist. Mitigation to compensate for the removal of riparian trees shall be accomplished through replacement plantings of locally native trees at not less than a 3:1 replacement to-loss-ratio within the project site or an alternative location approved by CDFW. With regards to riparian trees, this mitigation measure shall supersede other mitigation included in this draft EIR that prescribe tree replacement ratios to reduce other impacts.</p> <p>A riparian restoration plan detailing the following elements shall be prepared:</p> <ul style="list-style-type: none"> <li>■ The number, species, and location of riparian mitigation plantings that will be planted in the restoration area;</li> <li>■ Performance standards requiring a minimum 75 percent survival rate; average of good vigor and positive height growth of riparian mitigation trees after ten years; seasonal planting timing; and method of supplemental watering during the establishment period;</li> <li>■ The monitoring period, which shall be not less than 10 years for riparian restoration;</li> <li>■ Adaptive management procedures that may be employed as needed to ensure the success of the restoration project. These include, but are not limited to, exotic and invasive plant species control, the use of browse barriers to protect riparian plants from wildlife damage,</li> </ul>	<p>Less than Significant</p>

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		<p>replacement plantings and management of the supplemental watering system to support the attainment of the foregoing performance standards;</p> <ul style="list-style-type: none"> <li>■ Management and maintenance activities, including weeding, supplemental irrigation, site protection; and</li> <li>■ Responsibility for maintaining, monitoring and ensuring the preservation of the mitigation site in perpetuity.</li> </ul> <p>In replacing riparian trees, the arborist shall review the final project grading plans to ensure that adequate tree preservation methods, guidelines, and conditions are in place. The arborist shall conduct pre-demolition site meetings with the contractor to determine clearance pruning, stump removal techniques, fencing placement and timing, and tree protection. The arborist shall have site meetings after demolition to review and confirm tree protection fencing position for the grading and construction portion of the subdivision. The arborist shall be guided by the standard protocols set forth in the American National Standards Institute (ANSI) A300 Standard, Part 5 (2005) and the International Society of Arboriculture’s publication <i>Best Management Practices: Managing Trees During Construction</i> (2008).</p> <p><u>Mitigation Measure BIO-6b</u>: The fill of jurisdictional wetlands and unvegetated other waters will be avoided and minimized to the extent feasible. Authorization for the fill of waters of the U.S. and State shall be obtained by the project proponent prior to the start of construction. Mitigation for the fill of wetlands and other waters shall be accomplished through the creation of seasonal freshwater wetlands and unvegetated other waters at a minimum 1:1 replacement ratio within the project site, at an approved wetland mitigation bank, or at another location within the Walnut Creek watershed approved of by the USACE, RWQCB, and CDFW. The mitigation goal shall be to create and enhance aquatic</p>	

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		<p>habitats with habitat functions and values greater than or equal to those that will be impacted by the proposed project.</p> <p>Wetland mitigation within the project site or at another location within the Walnut Creek watershed would be described in a wetland mitigation plan that would:</p> <p>Be prepared consistent with the Final Regional Compensatory Mitigation and Monitoring Guidelines (USACE 2015) and the Compensatory Mitigation for Losses of Aquatic Resources: Final Rule (USACE 2008);</p> <p>Define the location of all restoration and creation activities;</p> <p>Describe measures that would ensure that adjacent land uses would not adversely affect the ecological functions and values of the wetland mitigation area, so as to ensure consistency with the foregoing federal guidelines and rules. Such measures may include the use of appropriately-sized buffers between the wetland mitigation area and any adjacent development, the use of fencing or walls to prevent unauthorized access, lighting in adjacent development designed to avoid light spillage into the wetland mitigation area, landscape-based Best Management Practices for adjacent development prior to discharge into the wetland mitigation area, and signage describing the sensitive nature of the wetland mitigation area.</p> <ul style="list-style-type: none"> <li>▪ Provide evidence of a suitable water budget to support restored and created wetland habitats;</li> <li>▪ Identify the species, quantity, and location of plants to be installed in the wetland habitats;</li> <li>▪ Identify the time of year for planting and method for supplemental watering during the establishment period;</li> <li>▪ Identify the monitoring so as to ensure consistency with the foregoing federal guidelines and rules, which shall be not less than five years for wetland restoration;</li> <li>▪ Define success criteria that will be required for</li> </ul>	

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		<p>restoration efforts to be deemed a success;</p> <ul style="list-style-type: none"> <li>▪ Identify adaptive management procedures that may be employed as needed to ensure the success of the mitigation project and its consistency with the foregoing federal guidelines and rules. These include, but are not limited to, remedial measures to address exotic invasive species, insufficient hydrology to support the attainment of performance standards, and wildlife harm;</li> <li>▪ Define management and maintenance activities, including weeding, supplemental irrigation, and site protection; and</li> <li>▪ Define responsibility for maintaining, monitoring and ensuring the preservation of the mitigation site in perpetuity.</li> </ul> <p>The project applicant shall comply with all terms of the permits issued by these agencies, including mitigation requirements, and shall provide proof of compliance to the County prior to issuance of a grading permit.</p>	
<p>Impact BIO-7: The project could result in the degradation of water quality in the intermittent drainages and downstream waters.</p>	<p>Significant</p>	<p><u>Mitigation Measure BIO-7</u>: Adverse impacts to water quality shall be avoided and minimized by implementing the following measures:</p> <ul style="list-style-type: none"> <li>▪ Prior to the start of site disturbance activities, construction barrier fencing and silt fencing shall be installed around the perimeters of wetlands and drainages that are to be protected during construction of the project to prevent movement of sediments into these features. Any debris that is inadvertently deposited into these features during construction shall be removed in a manner that minimizes disturbance.</li> <li>▪ All construction within jurisdictional features shall be conducted consistent with permits issued by USACE, RWQCB, and CDFW. Construction activities within these features shall be completed promptly to minimize their duration and resultant impacts.</li> </ul>	<p>Less than Significant</p>

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> <li>▪ Contractors shall be required to implement a Stormwater Pollution Prevention Plan that describes BMPs including the conduct of all work according to site-specific construction plans that minimize the potential for sediment input to the aquatic system, avoiding impacts to areas outside the staked and fenced limits of construction, covering bare areas prior to storm events, and protecting disturbed areas with approved erosion control materials.</li> <li>▪ Bioretention planters, vegetated swales, and other landscape-based BMPs to catch and filter runoff from impervious surfaces shall be implemented throughout the project site to protect water quality in receiving waters.</li> </ul>	
<p>Impact BIO-8: Several protected trees would be removed to allow for project construction.</p>	<p>Significant</p>	<p><u>Mitigation Measure BIO-8:</u> A Tree Replacement Plan shall be submitted to and approved by the County prior to the removal of trees and/or prior to the issuance of a grading permit. The replacement ratio shall be 3:1 for trees that are removed within riparian corridors, 2:1 for drought tolerant trees, and 1:1 for non-drought tolerant trees. The Tree Replacement Plan shall identify the total number of trees to be replanted in accordance to the above discussed ratio.</p> <p>The Tree Replacement Plan shall designate the approximate location, number, and sizes of trees to be planted on each lot. In addition, prior to submittal of a building permit for each home, a licensed landscape architect shall submit a landscape plan designating the final location and species of trees in general conformance with the Tree Planting Plan. Trees shall be planted prior to final of building permit.</p> <p>Replacement plantings shall consist of locally appropriate native species and non-invasive species. Tree species identified as a pest species by the California Invasive Plant Council shall not be used as replacement plantings.</p> <p>In designing the Tree Replacement Plan, the arborist shall review the final project grading plans to ensure that adequate</p>	<p>Less than Significant</p>

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>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, and tree protection. The arborist shall conduct post-demolition meetings to review and confirm tree protection fencing for grading and construction. The arborist shall incorporate standard protocols set forth in the American National Standards Institute (ANSI) A300 Standard, Part 5 (2005) and the International Society of Arboriculture's <i>Best Management Practices: Managing Trees During Construction (2008)</i>.</p> <p>The County will determine the number of replacement trees to be planted offsite if the project site cannot sustainably support the required number of replacement trees.</p>	
<b>Cultural and Tribal Resources</b>			
<p>Impact CUL-1: Construction of the project could potentially cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.</p>	<p>Significant</p>	<p><u>Mitigation Measure CUL-1</u>: Pursuant to CEQA Guidelines Section 15064.5, and other applicable law, in the event that any prehistoric, historic, archaeological, or paleontological resources are discovered during ground-disturbing activities, all work within 100 feet of the resources shall be halted and the proponent shall consult with the County and a qualified professional (historian, archaeologist, and/or paleontologist, as determined appropriate and approved by the County) to assess the significance of the find.</p> <p>If any find is determined to be significant, representatives of the County and the consulting professional shall determine, with the input of any affected California Native American tribe, the appropriate avoidance measures, such as planning greenspace, parks, or other open space around the resource to preserve it and/or its context (while protecting the confidentiality of its location to the extent feasible) or other appropriate mitigation, such as protecting the historical or cultural value of the resource through data recovery or</p>	<p>Less than Significant</p>

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>preservation.</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.</p> <p>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>Impact CUL-2: Construction of the project could potentially cause a substantial adverse change in the significance of an unknown archaeological resource pursuant to Section 15064.5.</p>	<p>Significant</p>	<p>See <u>Mitigation Measure CUL-1</u></p>	<p>Less than Significant</p>
<p>Impact CUL-3: Construction of the project potentially could directly or indirectly destroy a unique paleontological resource on site or unique geologic feature.</p>	<p>Significant</p>	<p>See <u>Mitigation Measure CUL-1</u></p>	<p>Less than Significant</p>

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact CUL-4: Construction of the project could potentially disturb human remains, including those interred outside of formal cemeteries.</p>	<p>Significant</p>	<p><u>Mitigation Measure CUL-2:</u> In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, 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 site or any nearby area reasonably suspected to overlie adjacent human remains until: <ul style="list-style-type: none"> <li>▪ 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>▪ If the coroner determines the remains to be Native American: <ul style="list-style-type: none"> <li>○ The coroner shall contact the Native American Heritage Commission within 24 hours;</li> <li>○ 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>○ 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> </ul> </li> </ul> </li> <li>2. Where the following conditions occur, the landowner or his authorized representative shall reburial the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance: <ul style="list-style-type: none"> <li>▪ 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;</li> <li>▪ The identified descendant fails to make a recommendation; or</li> <li>▪ The landowner or his authorized representative rejects</li> </ul> </li> </ol>	<p>Less than Significant</p>

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.	
Impact CUL-5: Construction of the project could potentially cause a substantial adverse change in the significance of an unknown tribal cultural resource.	Significant	See <u>Mitigation Measures CUL-1 and CUL-1</u>	Less than Significant
<b>Energy</b>			
<i>There are no significant impacts to Energy</i>			
<b>Geology and Soils</b>			
Impact GEO-1: The project could be subject to strong seismic shaking from regional geologic faults.	Significant	<u>Mitigation Measure GEO-1</u> : The project proponent shall design structures and foundations to withstand expected seismic sources in accordance with the current version of the California Building Code, as adopted by the County. Prior to the issuance of a building permit, the Contra Costa County Department of Conservation and Development shall verify that plans incorporate seismic site categorization and design coefficients in conformance with the most recent version of the California Building Code. The project sponsor shall be required to provide evidence that a qualified geotechnical engineer has reviewed final grading, drainage, and foundation plans for consistency with California Building Code and Uniform Building Code design standards, and verify that all pertinent recommendations of the geotechnical engineer are incorporated into final building plans (see Mitigation Measure GEO-2).	Less than Significant

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact GEO-2: Soils on the project site are unstable and could experience soil failure or other geotechnical hazards.</p>	<p>Significant</p>	<p><u>Mitigation Measure GEO-2</u>: A design-level geotechnical report shall provide recommendations to address soil stability on the project site. Performance measures shall include, but not be limited to, those described below.</p> <ul style="list-style-type: none"> <li>■ To reduce the potential for adverse settlement or stability problems, compressible native soils, artificial fill, and any compressible alluvium shall be replaced with engineered fill and/or improvements designed to accommodate the anticipated settlement. To reduce the expansion potential of the fill, moisture conditioning of clayey fill materials to above-optimum moisture content should be anticipated. Detailed fill placement recommendations will be provided based on laboratory testing and analysis performed in conjunction with the design-level geotechnical report.</li> <li>■ Depending on the location and characteristics of compressible native soils and artificial fill, some building pads may require drilled pier and grade beam foundations to achieve the desired level of structural support. This technique entails drilling pier holes below the depth of seasonal moisture changes and into more stable soils below. The pier holes are backfilled with concrete and reinforcing steel rebar, resulting in a structure with low movement risk.</li> <li>■ Most of the existing fill slope located along the rear of Lots 11 through 14 and Lots 18 through 20 will require corrective grading. For existing fills that remain in place, setbacks from the toe of the existing fill slope can be developed based on the findings of the design-level geotechnical exploration. In general, all proposed improvements should be set back from the toe of the slope a distance equal to, or greater than, the height of the existing fill slope.</li> <li>■ If after rough grading, testing of the pad soils determines that soils on the project site are corrosive, the project proponent will provide recommendation for foundations</li> </ul>	<p>Less than Significant</p>

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>that protect building materials (such as concrete and steel) in contact with the ground surface.</p> <ul style="list-style-type: none"> <li>■ The design-level geotechnical report will characterize shrink/swell properties of on-site soils. Design-level mitigation will be required to reduce the risk associated with expansive soils, which may include the following.                             <ul style="list-style-type: none"> <li>○ Excavate expansive soils and replace with non-expansive fill.</li> <li>○ Avoid siting structures across soil materials of substantially different expansive properties.</li> <li>○ Extend building foundations below the zone of seasonal moisture change.</li> <li>○ Utilize pier and grade beam foundation system.</li> <li>○ Utilize post-tensioned slabs</li> <li>○ Prevent accumulation of surface water adjacent to or under foundations.</li> </ul> </li> <li>■ Depending on the results of the design-level geotechnical report, the potential danger posed by liquefiable soils would be mitigated by appropriate soil and structural stabilization measures, such as compaction grouting and/or designing structures to accommodate anticipated settlement.</li> <li>■ Where development encroaches into the hilly, western areas of the project site, remedial grading will be required to reduce the potential for adverse impacts from slide movement and soil creep. Specific grading measures should be developed on a case-by-case basis where development encroaches into the mapped landslide areas. Measures may include:                             <ul style="list-style-type: none"> <li>○ Benching through the surficial soils during fill placement</li> <li>○ Drilled pier and grade beam foundation systems to accommodate lateral loads from soil creep</li> <li>○ Properly engineered cut and fill slopes</li> <li>○ Stabilization of landslide areas</li> <li>○ Creation of sufficient buffers between the identified landslide areas and development area</li> </ul> </li> </ul>	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> <li data-bbox="961 272 1600 548">■ Maintenance benches should be provided at the toe of major cut slopes (cut slopes higher than 10 feet) or natural slopes that extend upslope of the area of planned development. The width of the bench should be approximately 15 feet wide or as determined necessary by a licensed geotechnical engineer, depending on the height and steepness of the adjacent slope, to ensure compliance with applicable provisions of the California Building Code.</li> <li data-bbox="961 570 1600 873">■ A cut slope is planned on the upslope side of proposed Lot 29 that would be about 18 feet high and have a gradient of about 2:1. This proposed cut slope may encounter relatively shallow bedrock. Additional exploration must determine if a 2:1 slope is feasible in this location. If subsurface conditions are such that a 2:1 slope is not feasible, the slope should be flattened to a gradient no steeper than 2½:1, or reconstructed as an engineered fill slope with an appropriate keyway and subdrainage.</li> </ul>	
Impact GEO-3: The project site could experience hazards related to liquefaction or other seismic-related ground failure.	Significant	See <u>Mitigation Measures GEO-1 and GEO-2</u>	Less than Significant
Impact GEO-4: Evidence of landslide areas in the hills west of the project site suggests that the area experienced landslides in the past.	Significant	See <u>Mitigation Measures GEO-1 and GEO-2</u>	Less than Significant
Impact GEO-5: The project site could be located on expansive soils.	Significant	See <u>Mitigation Measures GEO-1 and GEO-2</u>	Less than Significant

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>Greenhouse Gas Emissions</b>			
<p>Impact GHG-1: The project may conflict with the Contra Costa County Climate Action Plan.</p>	<p>Significant</p>	<p><u>Mitigation Measure GHG-1:</u> The following improvements will be included as requirements for building permits for any applicable structure on the project site:</p> <ul style="list-style-type: none"> <li>■ The proposed project shall install high-efficiency kitchen and laundry appliances (e.g., Energy Star-rated appliances or equivalent). Tankless water heaters or a similar hot water energy-saving device or system shall be installed.</li> <li>■ The project proponent will develop a solar exposure study to determine which residences would benefit from solar energy. The solar study will be submitted prior to obtaining a building permit. Residences that would cost-effectively benefit from solar energy shall be wired to be solar ready, as defined by the California Building Standards Code. Residences that would not cost-effectively benefit from solar energy shall have the attic insulated with R-49 insulation batts to prepare for the statewide transition to zero net energy.</li> <li>■ The proposed project shall provide prewiring for electric vehicle charging stations for each residence.</li> </ul>	<p>Less than Significant</p>
<b>Hazards and Hazardous Materials</b>			
<p>Impact HAZ-1: Soils within portions of the project site may contain residual agrichemicals</p>	<p>Significant</p>	<p><u>Mitigation Measure HAZ-1:</u> Prior to issuance of any demolition, grading, or building permit, a site evaluation will investigate for agrichemical contamination on portions of APN 198-170-008 proposed for residential development. Soil samples will be collected and tested for organochlorine pesticides, lead, and arsenic by a qualified professional to assess potential environmental impacts from past agricultural practices. Concentrations of agricultural contaminants will be compared to applicable U.S. Environmental Protection Agency screening levels for residential development. The project applicant shall submit a comprehensive report to the County, signed by a qualified environmental professional, documenting the presence or lack of agrichemicals on APN</p>	<p>Less than Significant</p>

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		198-170-008. If this assessment finds presence of such chemicals, the project applicant shall create and implement a remediation plan that ensures workers and future residents are not exposed to concentrations in excess of applicable EPA screening levels and risks associated with these agrichemicals. Potential safety measures could include soil removal and treatment or protective work attire requirements for construction workers.	
Impact HAZ-2: Demolition of existing structures on the site could result in the release of lead, asbestos, and other contaminants.	Significant	<u>Mitigation Measure HAZ-2</u> : Prior to issuance of any demolition, grading, or building permit, the project applicant shall submit a comprehensive report to the County, signed by a qualified environmental professional, documenting the presence or lack of asbestos, lead-based paint, and any other building materials or stored materials classified as hazardous waste by State or Federal law. If this assessment finds presence of such materials, the project applicant shall create and implement a health and safety plan to ensure workers are not exposed to contaminants in excess of OSHA and other applicable State and Federal standards and associated risks associated with hazardous materials during demolition, renovation of affected structures, transport, and disposal.	Less than Significant
<b>Hydrology and Water Quality</b>			
Impact HYD-1: Project construction activities could substantially alter the existing drainage pattern of the project site in a manner which would result in substantial offsite erosion or siltation.	Significant	<u>See</u> Mitigation Measure BIO-7	Less than Significant
Impact HYD-2: Construction activities could substantially degrade water quality.	Significant	<u>See</u> Mitigation Measures BIO-6b and BIO7	Less than Significant
<b>Land Use and Planning</b>			
<i>There are no significant impacts to Land Use and Planning</i>			

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>Mineral Resources</b>			
<i>There are no significant impacts to Mineral Resources</i>			
<b>Noise</b>			
<p>Impact NOI-1: The project would substantially increase ambient noise levels in the project vicinity above existing levels.</p>	<p>Significant</p>	<p><u>Mitigation Measure NOI-1</u>: Prior to the issuance of building permits, any outdoor mechanical equipment, air conditioning units, or pumps shall be selected and designed to reduce impacts on surrounding uses. A qualified acoustical consultant shall be retained by the project applicant to review mechanical noise as the equipment systems are selected in order to determine specific noise reduction measures necessary to reduce noise to 55 dBA DNL at the shared property line. Noise reduction measures could include, but are not limited to, 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.</p>	<p>Less than Significant</p>
<p>Impact NOI-2: Existing noise-sensitive land uses would be exposed to construction noise levels for over one year.</p>	<p>Significant</p>	<p><u>Mitigation Measure NOI-2</u>: Abatement of excessive noise from off-road construction equipment would be accomplished by means of temporary acoustical screens of suitable height and extent. Such screens would completely interrupt the line-of-sight between the equipment and receptors of the noise and would have no gaps or openings. Efficacy would be maximized by placing screens as close to noise sources as possible. Sound screens will be approximately 12 feet in height and will provide approximately 8 decibels reduction in noise levels at the first and second stories of nearby homes. When construction noise impacts reach a level below 70</p>	<p>Less than Significant</p>

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>Ldn/CNEL at the nearest homes, the temporary screens can be removed.</p> <p>Construction is likely to be concentrated in one or a few contiguous areas at a time during each phase. Therefore, sound screens need not extend along the entire site perimeter at once, but could be shorter and moved following the work so as to provide shielding to one or more sensitive receptors near the work area. However, in order to maintain the full acoustic benefit, these screens will extend at least 1.5 times their height past each side of the area where construction equipment is to operate. This will minimize sound escaping around the ends of the screens.</p> <p><u>Mitigation Measure NOI-3:</u> The applicant shall develop a construction mitigation plan with input from County staff to minimize construction noise disturbance. Considering the potential for substantial increases in noise at adjacent residences as a result of project construction, the following conditions shall be incorporated into contract agreements to reduce construction noise impacts:</p> <ul style="list-style-type: none"> <li>▪ Restrict noise-generating activities including construction traffic at the construction site or in areas adjacent to the construction site to the hours of 8:00 a.m. to 5:30 p.m., Monday through Friday, with no construction allowed on Federal and State weekends and holidays.</li> <li>▪ Potential contractors shall be requested to submit information on their noise management procedures and demonstrate a successful track record of construction noise management on prior projects.</li> <li>▪ The selected contractor will equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for</li> </ul>	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>the equipment.</p> <ul style="list-style-type: none"> <li>■ The selected contractor will prohibit unnecessary idling of internal combustion engines.</li> <li>■ The selected contractor will locate stationary noise generating equipment, such as air compressors or portable power generators, as far as practical from sensitive receptors.</li> <li>■ The selected contractor will utilize “quiet” air compressors and other stationary noise sources where technology exists.</li> <li>■ The selected contractor shall limit the allowable hours for the delivery of materials or equipment to the site and truck traffic coming to and from the site for any purpose to Monday through Friday between 8:00 a.m. and 5:30 p.m.</li> <li>■ The selected contractor will establish construction staging areas and material stockpiles at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction as is feasible.</li> <li>■ During tree demolition, the woodchipper shall be located on Lot 30 to reduce the effect of noise levels to sensitive receptors. If the chipper is to be moved into other areas of the site, a qualified registered professional Noise Consultant shall determine the allowable distance from sensitive receptors so as to ensure consistency with the County’s noise thresholds. A noise contour map will be provided defining the boundaries of the chipper access on the project.</li> <li>■ The selected contractor will route all construction traffic to and from the project site via designated truck routes where possible and prohibit construction related heavy</li> </ul>	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>truck traffic in residential areas where feasible.</p> <ul style="list-style-type: none"> <li>▪ The selected contractor will control noise from construction workers’ radios to a point where they are not audible at existing residences bordering the project site.</li> <li>▪ After grading is complete and during construction of site improvements, the contractor will limit use of the property a distance of 75 feet from adjacent neighbor’s properties. Stockpiles and equipment storage shall be predominately on interior lots.</li> <li>▪ The selected contractor will notify neighbors located adjacent to the construction site of the construction schedule in writing.</li> <li>▪ The selected contractor will designate a project liaison that will be responsible for responding to noise complaints during the construction phase. The name and phone number of the liaison will be conspicuously posted at construction areas and on all advanced notifications. This person will take steps to resolve complaints, including periodic noise monitoring, if necessary. Results of noise monitoring will be presented at regular project meetings with the project contractor, and the liaison will coordinate with the contractor to modify any construction activities that generated excessive noise levels to the extent feasible.</li> <li>▪ The selected contractor will hold a preconstruction meeting with the job inspectors and the general contractor/on-site project manager to confirm that noise mitigation and practices (including construction hours, construction schedule, and noise coordinator) are completed.</li> <li>▪ Neighboring property owners within 300 feet of construction activity shall be notified in writing of the</li> </ul>	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>construction schedule and at least 30 days prior to loud noise-generating activities. Notification will include the nature and estimated duration of the activity.</p> <ul style="list-style-type: none"> <li>■ A qualified acoustical professional shall be retained as needed to address neighbor complaints as they occur. If complaints occur, noise measurements could be conducted to determine if construction noise levels at adjacent property lines are within acceptable performance standards. Short-term construction noise monitoring could also be utilized to diagnose complaints and determine if additional reductionary measures are required for certain phases of construction. Additional measures might include temporary local barriers around specific construction equipment or property line barriers. The location, height, and extent of the barriers would be provided by the acoustical professional.</li> </ul>	

**Population and Housing**

*There are no significant impacts to Population and Housing*

**Public Services and Recreation**

*There are no significant impacts to Public Services and Recreation*

**Transportation and Traffic**

*There are no significant impacts to Transportation and Traffic*

**Utilities and Service Systems**

*There are no significant impacts to Utilities and Service Systems*