2.1 PURPOSE

This <u>recirculated</u> draft environmental impact report (EIR) evaluates the potential for significant environmental impacts from the construction and occupancy of the Highland Estates project (proposed project), a residential development project proposed by Ticonderoga Partners <u>LLC</u>, the Project Applicant. The intent of this executive summary is to provide the decision-makers, responsible agencies, and the public with a clear, simple, and concise description of the proposed project and its potential significant environmental impacts. Section 15123 of the <u>2008-California Environmental Quality Act (CEQA) Statutes and Guidelines</u> requires that the summary identify each significant impact, recommended mitigation measure(s), and alternatives that would avoid or minimize potential significant impacts of the proposed project. The summary is also required to identify areas of controversy known to the lead agency, including issues raised by agencies and the public and issues to be resolved. This section focuses on the major areas of importance in the environmental analysis for the proposed project and utilizes non-technical language to promote understanding.

2.2 PROJECT SITE AND LOCATION

The project site is located within the area known as the San Mateo Highlands in an unincorporated area of San Mateo County, and is west of the San Mateo City limit. Highway 92 and Interstate 280 (I-280) are located south and west of the project site, respectively. The Lower and Upper Crystal Springs Reservoirs are also west of the project site. The project site is bordered by Bunker Hill Drive to the north and northeast; Polhemus Road to the southeast; Ticonderoga Drive and Cobblehill Place to the south; and Ticonderoga Drive, Lexington Avenue, and Yorktown Road to the west.

The project site is predominately surrounded by single-family residential uses. Other surrounding land uses in the project area include the Crystal Springs United Methodist Church and the Crystal Springs Shopping Center east of the site; the Hillsborough West Apartments southeast of the site; and the Highlands Recreation Center west of the site. The Highlands Elementary School is approximately 200 feet northwest of the project site.

Two parcels, owned by the California Water Company, are located off of Yorktown Road surrounded by the project parcel. They currently contain water storage facilities that are connected to the water line along Yorktown Road. An access road from Yorktown Road extends to the parcels.

2.3 PROJECT DESCRIPTION

In May 2006, a pre-application meeting was held and an application was submitted in August 2006 to the County for the development of eight residential units on the project site, including eight of the 11 houses currently proposed. The County conducted a preliminary evaluation of the potential environment effects of the development of eight single-family homes along Bunker Hill Drive and Ticonderoga Drive in an Initial Study prepared for the project which was circulated with the Notice of Preparation (NOP) in May 2007. Subsequent to the circulation of the NOP, the project was modified by the Project Applicant to include three additional single-family homes, located at the end of Cowpens Way and Cobblehill Place within the current project site and the County proposed an amendment to the current Resource Management (RM) Zoning District requirements.

The Project Applicant is currently proposing a series of actions that would result in the development of 11 residential lots, covering a total of approximately 4.53 acres. The portion of the project site zoned RM would include the development of nine lots, while the other two proposed dwelling units would be constructed on the single-family residential portion of the site. The subdivision plus the additional residential lots would result in a total of 11 single-family home lots, and 92.43 acres of the site would be designated as open space. Lots 1 through 4 would be located along Bunker Hill Drive, along the northern boundary of the site, and lots 5 through 8 would be located along Ticonderoga Drive, along the southern boundary of the site. Lots 9 and 10 would be located at the end of Cobblehill Place at the south side of the project and lot 11 would be located at the end of Cowpens Way in the southwesterly portion of the project site. Additionally, there are 2.08 acres of land owned by California Water Company that are completely surrounded by the 92.43 acres proposed for open space. These 2.08 acres are not a part of this project. Access to this water tank area is provided from Yorktown Road.

2.4 TOPICS OF KNOWN CONCERN

In order to receive input from interested public agencies and private parties as to which environmental topics should be addressed in this-the draft-EIR, an NOP and an Initial Study (IS) were prepared and circulated for 30 days on May 10, 2007. A scoping meeting was also held on June 5, 2007 at the Highlands Elementary School. Copies of the NOP and IS are provided in **Appendix 1.0** of this EIR. A revised NOP was issued on November 19, 2008 to inform the agencies and the public of the changes to the project. A draft EIR was circulated in December 2008, and since then the impact analyses for various resource topics have been modified to address concerns raised by interested parties and public agencies. Based on the NOP_z and-IS_z and draft EIR comments, this recirculated draft EIR addresses the following environmental topics in depth:

Aesthetics

- Biological Resources
- Geology and Soils

Based on the conclusions of the published Initial Study and current CEQA regulations, further environmental analysis was required for construction-related air quality emissions, greenhouse gas emissions, hazards associated with naturally occurring asbestos, construction-related noise levels, risks associated with wildland fires, and potential project-related traffic impacts, and wastewater collection system impacts. This analysis can be found in Section 4.4, Other Resource Topics. The EIR also includes a discussion of all environmental topic areas that were determined by the Initial Study to either not be affected by the proposed project or for which environmental impacts were found to be less than significant.

2.5 IMPACT SUMMARY

A detailed discussion regarding potential impacts of the proposed project is provided in **Section 4.0**, **Environmental Setting**, **Impacts**, **and Mitigation Measures**. In accordance with the *State CEQA Guidelines*, a summary of the project's significant effects is provided in **Table 2.0-1**, **Summary of Impacts and Mitigation Measures**, presented at the end of this section. Also provided in **Table 2.0-1** are mitigation measures that are proposed to avoid or reduce potentially significant and significant project effects. The table indicates whether implementation of the proposed mitigation measures would reduce the impact to a less-than-significant level.

2.6 ALTERNATIVES TO THE PROPOSED PROJECT

The alternatives evaluated in this EIR focus on avoiding or further reducing potentially significant and significant project impacts associated with aesthetics, biological resources, and geology and soils. Project alternatives are summarized below. Please refer to **Section 6.0**, **Alternatives**, for a detailed discussion of these alternatives. **Table 2.0-2** presents a comparison of the environmental impacts of the alternatives and is provided at the end of this section.

2.6.1 Alternative 1: No Project, No Build Alternative

Alternative 1 would result in no development on the project site, and the site would remain vacant.

2.6.2 Alternative 2: No Project, Residential Use Alternative

Although a No Project Alternative per CEQA requirements can consist of no new development as described above under the No Build Alternative, Alternative 2 assumes that according to current zoning

up to nine single-family homes would be constructed even if the proposed project is denied. Future development on the project site is likely, given that the project site is an available vacant lot within a residentially developed neighborhood and given the site's current zoning designations and density bonus qualifications. Based on current County allowances for development on the site, it is anticipated that eight to nine lots would still likely be developed along Ticonderoga and Bunker Hill Drive, but would be limited by the geological, biological, and aesthetic constraints of the site. Given the current site constraints posed by slopes, vegetation, drainage channels and limited access, only the most developable portions of the site would likely be developed under this alternative, in order to minimize construction costs. Due to these constraints, homes would still likely be constructed along Bunker Hill Drive and Ticonderoga Drive in areas where slopes are less severe and visual and biological limitations are fewer. This alternative would, therefore, be expected to include up to nine housing units based on consistency with current zoning and economic feasibility for site acquisition and development.

2.6.3 Alternative 3: Alternative Project Scheme

Alternative 3 would involve the reconfiguration of all or part of the proposed 11 lots and reconfiguration of the remaining open space portion of the site. This alternative would not reduce the number of residential lots proposed, but would be intended to minimize environmental impacts by relocating development to an area other than the proposed Ticonderoga Drive location (including lots 5 through 8). This would reduce the number of homes located within an area where landslide deposits have been recorded and could potentially minimize aesthetics impacts to off-site views of the project. Instead of the current housing configuration, the housing proposed along Ticonderoga Drive would be eliminated and replaced by four additional units at Cobblehill Place. In addition to this housing, the currently proposed housing along Bunker Hill Drive and Cowpens Way would also be developed. Under this scenario, six houses at the end of Cobblehill Place, four houses along Bunker Hill Drive, and one house at the end of Cowpens Way would be developed. The change in lot sizes under this alternative would require lot line adjustments and a zoning text amendment as proposed under the project to allow smaller setbacks and side yards.

2.6.4 Alternative 4: Reduced Density Alternative

Alternative 4 would involve a similar layout to Alternative 3 described above, with the elimination of currently proposed lots 5-8 and the concentration of proposed residential development along Bunker Hill Drive and Cobblehill Place. This alternative would also-include the elimination of the currently proposed lot 11 at Cowpens Way. This alternative, therefore, proposes a total of eight houses, with four located at Bunker Hill Drive and four located at Cobblehill Place. This alternative was developed with the goal of reducing or avoiding identified potentially significant impacts related to geology and aesthetics as well as

impacts to biological resources including tree removal, and to a lesser extent reducing the magnitude of project impacts related to construction. Alternative 4 would also require a zoning text amendment and lot line adjustments, but would reduce the density of the overall residential units proposed from 11 to 8 units. Under this alternative, the total residential portion of the project proposed for development would be 3.26 acres and the open space portion of the site would be approximately 94 acres.

2.6.5 Environmentally Superior Alternative

CEQA requires the identification of the environmentally superior alternative among the alternatives to the project. The environmentally superior alternative must be an alternative to the project that reduces some of the environmental impacts of the project, regardless of the financial costs associated with this alternative. Identification of the environmentally superior alternative is an informational procedure and the alternative identified as the environmental superior alternative may not be that which best meets the goals or needs of the project. Additionally, if the No Project Alternative is determined to reduce most impacts, CEQA requires that the EIR identify an environmentally superior alternative among the other alternatives (*State CEQA Guidelines* Section 15126.6(e)).

The criteriona for identifying of the environmentally superior alternative is based on comparison of the alternatives that would most substantially reduce or avoid significant and potentially significant impacts identified for the proposed project. The No Project, No Build Alternative would eliminate all environmental impacts of the project, but would not meet the project objectives. Although this No Project Alternative would reduce all environmental impacts, CEQA requires that the EIR identify an environmentally superior alternative among the other alternatives. The No Project Residential Use Alternative would likely produce similar results to the proposed project, resulting in nearly identical impacts. Alternative 4, Reduced Density Alternative would eliminate impacts to biological resources and would reduce geological and aesthetic impacts identified for the proposed project. Alternative 3 would also reduce geology and soil impacts and aesthetics impacts, but Alternative 4 would more comprehensively reduce or avoid all significant impacts including impacts to other resources.

Pursuant to CEQA, Alternative 4, Reduced Density Alternative, is the environmentally superior alternative. Alternative 4 would further reduce the magnitude of the less-than-significant impacts identified for the proposed project such as the number of vehicle trips generated, noise, and air quality impacts, and would reduce potentially significant impacts identified related to geology and aesthetics. Additionally, this alternative would further reduce the magnitude of construction and operational impacts by reducing total units. For these reasons, Alternative 4 would be the environmentally superior alternative to the project.

2.7 ISSUES TO BE RESOLVED/AREAS OF CONTROVERSY

This <u>recirculated</u> draft EIR addresses environmental issues associated with the proposed project that are known to the lead agency or were raised by other public agencies or interested parties during the draft EIR scoping process <u>and during circulation of the December 2008 draft EIR</u>. To assist in addressing the <u>scoping</u>-comments, a comprehensive description of the issues identified is provided in the respective environmental resource sections of this EIR. The introduction of each resource section summarizes the concerns expressed and addresses such concerns in the impact analysis section of that resource section.

The key issues to be resolved include the following:

- The visual changes that would occur as a result of the development of the site;
- Slope stability and the potential for landslides in the Bunker Hill Drive and Ticonderoga Drive areas;
- The ability of existing slopes to withstand earthquakes and the need for design recommendations to address existing conditions; and
- The suitability of the site for construction; and
- The ability of the wastewater collection system to accommodate additional wastewater flows.

Table 2.0-1 Summary of Impacts and Mitigation Measures

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.1 Aesthetics			
Impact AES-1		Improvement Measure AES-1	
The proposed project would alter project views but would not obstruct scenic views from existing off-site and residential areas or adversely affect scenic views from a designated scenic route.	Less than significant	Improvement Measure AES-1: The Project Applicant shall provide "finished floor verification" to certify that the structures are actually constructed at the height shown on the approved plans. The Project Applicant shall have a licensed land surveyor or engineer establish a baseline elevation datum point in the vicinity of the construction site. Prior to the below floor framing inspection or the pouring of concrete slab for the lowest floors, the land surveyor shall certify that the lowest floor height as constructed is equal to the elevation of that floor specified by the approved plans. Similarly, certifications of the garage slab and the topmost elevation of the roof are required. The application shall provide the certification letter from the licensed land surveyor to the Building Inspection Section.	Less than significant
Impact AES-2		Improvement Measure AES-2	
The proposed project would construct single-family residences on an undeveloped site in a residential neighborhood but would not degrade the existing visual character of the site.	Potentially significant	Improvement Measure AES-2: Construction contractors shall minimize the use of on-site storage and when necessary store building materials and equipment away from public view and shall keep activity within the project site and construction equipment laydown areas.	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.1 Aesthetics (continued)			
Impact AES-3		Mitigation Measure AES-3	
The proposed project would construct new homes on a site that is currently undeveloped but would not visually intrude into an area having natural scenic qualities.	Less than significant	No mitigation measures required.	Less than significant
Impact AES-4		Mitigation Measure AES-4	
The proposed project would not result in a significant cumulative impact on visual resources.	Less than significant	No mitigation measures required.	Less than significant
4.2 Biological Resources			
Impact BIO-1		Mitigation Measure BIO-1	
The proposed project would not have a substantial adverse effect on special-status plant species.	Less than significant	No mitigation measures required.	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.2 Biological Resources (continued)			
Impact BIO-2		Mitigation Measure BIO-2	
The proposed project would result in a substantial adverse effect on special-status wildlife species.	Potentially significant	Mitigation Measure BIO-2a: No earlier than 30 days prior to the commencement of construction activities, a survey shall be conducted to determine if active woodrat nests (stickhouses) with young are present within the disturbance zone or within 100 feet of the disturbance zone. If active woodrat nests (stickhouses) with young are identified, a fence shall be erected around the nest site adequate to provide the woodrat sufficient foraging habitat at the discretion of a qualified biologist and based on consultation with the CDFG. At the discretion of the monitoring biologist, clearing and construction within the fenced area would be postponed or halted until young have left the nest. The biologist shall serve as a construction monitor during those periods when disturbance activities will occur near active nest areas to ensure that no inadvertent impacts on these nests will occur. If woodrats are observed within the disturbance footprint outside of the breeding period, individuals shall be relocated to a suitable location within the open space by a qualified biologist in possession of a scientific collecting permit. This will be accomplished by dismantling woodrat nests (outside of the breeding period), to allow individuals to relocate to suitable habitat within the adjacent open space.	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.2 Biological Resources (continued)			
Impact BIO-2 (continued)		Mitigation Measure BIO-2 (continued)	
		Mitigation Measure BIO-2b: No earlier than two weeks prior to commencement of construction activities that would occur during the nesting/breeding season of native bird species potentially nesting/roosting on the site (typically February through August in the project region), a survey for nesting birds shall be conducted by a qualified biologist experienced with the nesting behavior of bird species of the region. The intent of the survey would be to determine if active nests of special-status bird species or other species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code are present in the construction zone or within 500 feet of the construction zone. The surveys shall be timed such that the last survey is concluded no more than two weeks prior to initiation of construction or tree removal work. If ground disturbance activities are delayed, then an additional pre-construction survey shall be conducted such that no more than two weeks will have elapsed between the last survey and the commencement of ground disturbance activities.	
		If active nests are found in areas that could be directly affected or subject to prolonged construction-related noise, a no-disturbance buffer zone shall be created around active nests during the breeding season or until a qualified biologist determines that all young have fledged. The size of the buffer zones and types of construction activities restricted within them will be determined through consultation with the CDFG, taking into account factors such as the following:	

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.2 Biological Resources (continued)			
Impact BIO-2 (continued)		Mitigation Measure BIO-2 (continued)	
		Noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity;	
		Distance and amount of vegetation or other screening between the construction site and the nest; and	
		Sensitivity of individual nesting species and behaviors of the nesting birds.	
		Limits of construction to avoid an active nest shall be established in the field with flagging, fencing, or other appropriate barriers and construction personnel shall be instructed on the sensitivity of nest areas. A qualified biologist shall serve as a construction monitor during those periods when construction activities would occur near active nest areas of special-status bird species and all birds covered by the Migratory Bird Act to ensure that no impacts on these nests occur.	

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.2 Biological Resources (continued)			
Impact BIO-2 (continued)		Mitigation Measure BIO-2 (continued)	
		Mitigation Measure BIO-2c: Prior to the commencement of construction activities during the breeding season of native bat species in California (generally occurs from April 1 through August 31), a focused survey shall be conducted by a qualified bat biologist to determine if active maternity roosts of special-status bats are present within any of the trees proposed for removal. Should an active maternity roost of a special-status bat species be identified, the roost shall not be disturbed until the roost is vacated and juveniles have fledged, as determined by the biologist. Once all young have fledged, then the tree may be removed. Species-appropriate replacement roosting habitat (e.g., bat boxes) shall be provided should the project require the removal of a tree actively used as a maternity roost. The replacement roosting habitat shall be subject to the approval of the CDFG.	

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.2 Biological Resources (continued)			
Impact BIO-2 (continued)		Mitigation Measure BIO-2 (continued)	
		Mitigation Measure BIO-2d: Immediately preceding initial ground disturbance activities on lot 11, a preconstruction clearance survey shall be conducted by a qualified biologist for California red-legged frogs. The survey shall be conducted to determine whether individual California red-legged frogs are present within the disturbance boundary. Should a California red-legged frog be observed during the clearance survey, all construction activities on lot 11 shall be immediately halted and the USFWS shall be immediately contacted. Under no circumstances shall a California red-legged frog be collected or relocated, unless USFWS personnel or their agents implement the measure. Construction-related activities may resume once the frog has naturally left the lot or has been relocated by a permitted biologist (authorized by the USFWS).	

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.2 Biological Resources (continued)			
Impact BIO-3		Mitigation Measure BIO-3	
The implementation of the proposed project would result in the loss of protected trees.	Potentially significant	Mitigation Measure BIO-3: As required by the County for the removal of trees within the RM District, tree replacement shall occur at a minimum 1:1 ratio for all protected trees removed with a circumference of or exceeding 55 inches (17.5 inches diameter at breast height). The replacement of indigenous trees shall be in kind (i.e., live oaks removed shall be replaced by live oaks) and exotic trees to be removed shall be replaced with an appropriate species on the tree list maintained by the County of San Mateo Planning Department. Replacement trees shall also be maintained for a minimum of 2 years, but up to 5 years (as determined by the County of San Mateo Planning Department). To facilitate the successful replacement of trees, a tree replacement plan shall be prepared and shall meet the following standards: • Where possible, the plan shall identify suitable areas for tree replacement to occur such that the existing native woodlands in the open space are enhanced and/or expanded.	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.2 Biological Resources (continued)			
Impact BIO-3 (continued)		Mitigation Measure BIO-3 (continued)	
		 The plan shall specify, at a minimum, the following: The location of planting sites; Site preparation and planting procedures; A schedule and action plan to maintain and monitor the tree replacement sites; 	
		 A list of criteria and performance standards by which to measure success of the tree replacement; and Contingency measures in the event that tree replacement efforts are not successful. 	
		The plan shall also require measures to protect oak and other native trees occurring outside, but within 100 feet, of the grading/disturbance area. These measures may include protective fencing, prohibiting construction/grading activities with the drip-line of trees to be preserved, or other appropriate measures approved by the County.	
Impact BIO-4		Mitigation Measure BIO-4	
The proposed project would not significantly affect common fish, wildlife, reptiles, or plant life.	Less than significant	No mitigation measure required.	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.2 Biological Resources (continued)			
Impact BIO-5		Mitigation Measure BIO-5	
The proposed project could have a substantial adverse effect on willow scrub habitat (a riparian and sensitive plant community) bordering lot 11.	Potentially significant	Mitigation Measure BIO-5a: Prior to the commencement of construction activities on lot 11, the outer edge of the willow scrub habitat (facing lot 11) shall be delineated by a qualified biologist. Temporary fencing shall be installed that clearly identifies the outer edge of the willow habitat and that identifies the willow scrub as an "Environmentally Sensitive Area." Signs shall be installed indicating that the fenced area is "restricted" and that all construction activities, personnel, and operational disturbances are prohibited. Mitigation Measure BIO-5b: Prior to the issuance of a grading permit, the Project Applicant shall develop an erosion control plan. The plan shall include measures such as silt fencing to prevent project-related erosion and sedimentation from adversely affecting the creek zone and other habitats on and near lots 1–11. The erosion control plan shall be subject to approval by the County of San Mateo Planning Department.	Less than significant
		Mitigation Measure BIO-5c: Prior to the issuance of a grading permit, the Project Applicant shall develop a lighting plan. The lighting plan shall require that all lighting be directed and shielded as to minimize light spillage into nearby willow scrub habitat, as well as adjacent oak woodland habitats. The lighting plan shall be subject to approval by the County of San Mateo Planning Department.	

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.2 Biological Resources (continued)			
Impact BIO-6		Mitigation Measure BIO-6	
The implementation of the proposed project would result in the loss of stands of purple needlegrass, which is a sensitive plant community.	Potentially significant	Mitigation Measure BIO-6: Prior to the commencement of construction on lot 8, the occurrence of purple needlegrass shall be mapped, including all stands on the lot with 20 percent or greater cover of native grasses and having a diameter greater than 10 feet. The area of purple needlegrass to be lost due to development of the lot shall then be calculated. As part of the proposed project, approximately 92 acres of open space would be maintained as open space under a conservation easement. This open space contains a serpentine grassland (on the slope west of the water tanks) that is dominated by native grasses (including purple needlegrass) and other native plant species. These native grasses, including purple needlegrass, would be permanently protected by the conservation easement. In addition, non-native plant areas adjacent to the serpentine grassland shall be restored to support native grasses. A deed restriction (or other conservation mechanism approved by the County of San Mateo) shall be placed over an area portion of the serpentine grassland that is twice the acreage (2:1) of the stands of purple needlegrass to be lost on lot 8; future development of this portion of the serpentine grassland shall be prohibited.	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.2 Biological Resources (continued)			
Impact BIO-7		Mitigation Measure BIO-7	
Increased human presence would not adversely affect native habitats in the open space area.	Less than significant	No mitigation measures required.	Less than significant
Impact BIO-8		Mitigation Measure BIO-8	
The proposed project would include clearing land that has slopes greater than 20 percent.	Potentially significant	Mitigation Measure: Mitigation Measure BIO-5b, above, would be implemented to control erosion and sedimentation associated with the development of lot 11 and would be subject to the approval of the County of San Mateo County. No additional mitigation measures are required.	Less than significant
Impact BIO-9		Mitigation Measure BIO-9	
The implementation of the proposed project could have a substantial adverse effect on a federally protected wetland.	Potentially significant	Mitigation Measure: Mitigation Measure BIO-5a, above, would be implemented to prevent inadvertent construction-related impacts to the creek and willows near lot 11. Additionally, Mitigation Measure BIO-5b, above, would be implemented to control erosion and sedimentation associated with the development of lot 11. No additional mitigation measures required.	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.2 Biological Resources (continued)			
Impact BIO-10		Mitigation Measure BIO-10	
The proposed project would not interfere substantially with the movement of wildlife.	Less than significant	No mitigation measures required.	Less than significant
Impact BIO-11		Mitigation Measure BIO-11	
The implementation of the proposed project would not substantially contribute towards the loss of sensitive biological resources in the project area.	Less than significant	No mitigation measures required.	Less than significant
4.3 Geology and Soils			
Impact GEO-1		Mitigation Measure GEO-1	
The proposed project would involve development on slopes steeper than 15 percent and could expose people and structures to landslide hazards.	Potentially significant	Mitigation Measure GEO-1: A design-level geotechnical investigation of the site shall be performed prior to any project grading including static and seismic slope stability analysis of the areas of the project site to be graded and developed. The specific mitigation measures to be utilized in order to stabilize existing landslides and areas of potential seismically induced landslides shall be presented in the report. The specific mitigation measures shall include some or comparable measures of the following measures or measures comparable to these:	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.3 Geology and Soils (continued)			
Impact GEO-1 (continued)		Mitigation Measure GEO-1 (continued)	
		 Landslide debris on lots 7 and 8 shall be excavated on potentially unstable slopes and replaced with an fully drained conventional engineered buttress fill with subsurface drainagethat is founded in the underlying Franciscan mélange, as recommended by the project geotechnical engineer. (Lots 57-8) Retaining walls shall be designed to withstand high lateral earth pressure from adjoining natural materials and/or backfill shall be installed at the rear of lots 5 through 8. In addition, retaining walls shall be built in the front of lots 5 and 6 to aid in maintaining the slopes behind the lots and the more extensive cut required for lots 5 and 6. (Lots 5-8) A surface drainage system shall be installed for each lot to mitigate new landslides developing within the thin veneer of soil mantling the bedrock on the slope below lots 1 through 4. (Lots 1-4) 	
		Subsurface drainage galleries shallmay be installed to control the flow of groundwater and reduce the potential for slope instabilities from occurring in the future. (All lots)	
		 Over-steepening of slopes shall be avoided. Horizontal benches shall be constructed on all reconstructed slopes at an interval of 25 to 30 feet. New fill shall be compacted to at least 90 percent relative compaction (as determined by ASTM test method D1557). (All lots) Drilled piers and grade-beam foundations shall be used to support foundations in accordance with 	
		used to support foundations in accordance with recommendations of the project geotechnical engineer. (All lots)	

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.3 Geology and Soils (continued)			
Impact GEO-2		Mitigation Measure GEO-2	
Impact GEO-2 The proposed project is located on a geologic unit that may be unstable or could become unstable as a result of the project.	Potentially significant	 Mitigation Measure GEO-2a: Materials used to construct the buttress fill should have effective strength parameters equal to or better than the parameters used in the Treadwell & Rollo 2009 study. (Lots 7 and 8) Mitigation Measure GEO-2b: The following mitigation measures shall be implemented to ensure the stability of proposed structures that are located on deep fill soils: A site-specific, design-level geotechnical investigation shall be completed during the design phase of the proposed project, and prior to approval of new building construction within the site for specific foundation design, slope configuration, and drainage design. This investigation shall include the identification of all areas of potential soil instability. 	Less than significant
		 (All lots) The geotechnical investigation shall provide recommendations to prevent water from ponding in pavement areas and adjacent to the foundation of the proposed residences, and to prevent collected water from being discharged freely onto the ground surface adjacent to the residences, site retaining walls, or artificial slopes. The project geotechnical engineer shall identify on site areas downslope of the homes where the collected water may be discharged utilizing properly designed energy dissipaters. (All lots) 	

Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
	Mitigation Measure GEO-2	
	 Fills used at the project site shall be properly placed with keyways and subsurface drainage, and adequately compacted following the recommendations of the final geotechnical report and Geotechnical Engineer, in order to significantly reduce fill settlement. In particular, alluvial deposits in the southernmost main drainage behind the Hillsborough West Apartments shall be over excavated as recommended by the project Geotechnical Engineer. (All lots) Underground utilities shall be designed and constructed using flexible connection points to allow for differential settlement. (All lots) Foundation plans shall be submitted to the County for review prior to issuance of a building permit. All foundation excavations shall be observed during construction by the project Geotechnical Engineer to insure that subsurface conditions encountered are as anticipated. As-built documentation shall be submitted to the County. (All lots) Drilled pier and grade-beam foundations or other appropriate foundations per the recommendations of the design-level geotechnical investigation shall be developed for lots that are determined to likely experience soil creep. (All lots) All work shall be completed in accordance with requirements of the 2007 California Building Code and 	
	<u> </u>	Mitigation Measure GEO-2 • Fills used at the project site shall be properly placed with keyways and subsurface drainage, and adequately compacted following the recommendations of the final geotechnical report and Geotechnical Engineer, in order to significantly reduce fill settlement. In particular, alluvial deposits in the southernmost main drainage behind the Hillsborough West Apartments shall be over excavated as recommended by the project Geotechnical Engineer. (All lots) • Underground utilities shall be designed and constructed using flexible connection points to allow for differential settlement. (All lots) • Foundation plans shall be submitted to the County for review prior to issuance of a building permit. All foundation excavations shall be observed during construction by the project Geotechnical Engineer to insure that subsurface conditions encountered are as anticipated. As-built documentation shall be submitted to the County. (All lots) • Drilled pier and grade-beam foundations or other appropriate foundations per the recommendations of the design-level geotechnical investigation shall be developed for lots that are determined to likely experience soil creep. (All lots) All work shall be completed in accordance with

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.3 Geology and Soils (continued)			
Impact GEO-3		Improvement Measure GEO-3	
The proposed project would not result in substantial soil erosion or the loss of topsoil from grading activities.	Less than significant	Improvement Measure GEO-3: In compliance with the NPDES regulations, the Project Applicant shall file a Notice of Intent with the State Water Resources Control Board (SWRCB) prior to the start of construction grading and prepare a SWPPP. The SWPPP shall include specific best management practices to reduce soil erosion. The SWPPP shall include locations and specifications of recommended soil stabilization techniques, such as placement of straw wattles, silt fence, berms, and storm drain inlet protection. The SWPPP shall also depict staging and mobilization areas with access routes to and from the site for heavy equipment. The SWPPP shall include temporary measures to reduce erosion to be implemented during construction, as well as permanent measures. County staff and/or representatives shall review the SWPPP to ensure adequate compliance with State and County staff and/or representatives shall visit the site during grading and construction to ensure compliance with the SWPPP, as well as note any violations, which shall be corrected immediately. A final inspection shall be completed prior to occupancy.	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.3 Geology and Soils (continued)			
Impact GEO-4		Mitigation Measure GEO-4	
The proposed project could expose people or structures to potential adverse effects, including the risk of	Potentially significant	Mapped Spectral Response for Long Periods- 1 Sec (S ₁): 1.273 g Site Coefficient- Fa, based on the mapped spectral response for short periods: 1.0	Less than significant
loss, injury, or death involving strong seismic groundshaking.		Adjusted Maximum Considered EQ Spectral Response for Short Periods (Sms): 2.226	
		Adjusted Maximum Considered EQ Spectral Response for Long Periods (S _{M1}): 1.655	
		Design (5-percent damped) Spectral Response Acceleration Parameters at short periods (Sps): 1.484	
		Design (5-percent damped) Spectral Response Acceleration Parameters at long periods (SD1): 1.103	
Impact GEO-5		Mitigation Measure GEO-5	
The proposed project could potentially expose residents to substantial risks to life or property from development on expansive soils.	Potentially significant	Mitigation Measure GEO-5: During site grading, soils in each lot shall be observed and tested by the project Geotechnical Engineer to determine if expansive soils are exposed. Should expansive soils be encountered in planned building or pavement locations, the following measures shall be implemented under the direction of the Geotechnical Engineer in order to mitigate the impact of expansive soils:	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.3 Geology and Soils (continued)			
Impact GEO-5 (continued)		Mitigation Measure GEO-5 (continued)	
		Expansive soils in foundation areas shall be excavated and replaced with non-expansive fill to the specifications of the geotechnical engineer.	
		A layer of non-expansive fill soils 12 to 24 inches in thickness shall be placed over the expansive materials and prior to the placement of pavements or foundations.	
		Moisture conditioning of expansive soil shall be applied to a degree that is several percent above the optimum moisture content or lime treating of the expansive soil.	
		Foundations shall be constructed to be below the zone of seasonal moisture fluctuation or to be capable of withstanding the effects of seasonal moisture fluctuations.	
		Specific control of surface drainage and subsurface drainage measures shall be provided.	
		Low water demand landscaping shall be used.	
Impact GEO-6		Mitigation Measure GEO-6	
The implementation of the proposed project would not substantially contribute towards cumulative geology and soils impacts in the project area.	Less than significant	No mitigation measures required.	Less than significant

T	Level of Significance	2000 0 20	Level of Significance
Environmental Topic and Impact	before Mitigation	Mitigation Measures	after Mitigation
4.4 Other Resource Topics			
Impact GCC-1		Mitigation Measure GCC-1	
The proposed project would generate GHG emissions as a result of its day-to-day activities, which would not contribute substantially to potential cumulative impacts of GHG emissions. Create significant climate change impact if it is inconsistent with or impedes the emissions reduction targets developed by the state pursuant to AB 32.	Less than significant	No mitigation measures required.	Less than significant
Impact AQ-1		Mitigation Measure AQ-1	
The proposed project would generate pollutants that would violate existing standards of air quality on site or in the surrounding area or violate an air quality standard or contribute substantially to an existing or project air quality violation. Generate pollutants (hydrocarbon, thermal odor, dust or smoke particulates, radiation, etc.) that will violate existing standards of air quality on site or in the surrounding area or violate any air quality standard or contribute substantially to an existing or project air quality violation.	Potentially significant	Mitigation Measure AQ-1: The project Project Applicantsponsors shall require that the following BAAQMD recommended and additional PM10 reduction practices be implemented by including them in the contractor construction documents: The first phase of construction shall require 30 percent of construction equipment to meet Tier 1 EPA certification standards for clean technology. The remainder of construction equipment (70 percent), which would consist of older technologies, shall be required to use emulsified fuels.	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.4 Other Resource Topics			
Impact AQ-1 (continued)		Mitigation Measure AQ-1 (continued)	
		 The second phase of construction shall require 30 percent of construction equipment to meet Tier 2 EPA certification standards for clean technology and 50 percent to meet Tier 1 EPA certification standards. The remaining 20 percent of construction equipment, which would consist of older technologies, shall use emulsified fuels. For all larger vehicles, including cement mixers or other devices that must be delivered by large trucks, vehicles shall be equipped with CARB level three verified control devices. 	
		Water all active construction areas at least twice daily.	
		Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.	
		Pave, apply water three times daily, or apply non- toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at the construction sites.	

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.4 Other Resource Topics (continued)			
Impact AQ-1 (continued)		Mitigation Measure AQ-1 (continued)	
		Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at the construction sites.	
		Sweep public streets adjacent to construction sites daily (with water sweepers) if visible soil material is carried onto the streets.	
		Hydroseed or apply non-toxic soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).	
		Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.). Limit traffic speeds on unpaved roads to 15 miles per hour.	
		Limit traffic speeds on unpaved roads to 15 miles per hour.	
		Install sandbags or other erosion control measures to prevent silt runoff to public roadways.	
		Replant vegetation in disturbed areas as soon as possible.	
		Install wheel washers for all exiting trucks or wash off the tires or tracks of all trucks and equipment leaving the construction site.	
		Install wind breaks at the windward sides of the construction areas	
		Suspend excavation and grading activities when wind (as instantaneous gusts) exceeds 25 miles per hour.	

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.4 Other Resource Topics (continued)			-
Impact NOI-1		Mitigation Measure NOI-1	
The proposed project would Generate noise levels in excess of levels determined appropriate according to the County Noise Ordinance standard.	Potentially significant	 Mitigation Measure NOI-1: The Project Applicant shall require that the following noise reduction practices be implemented by including them in the contractor construction documents: Equipment and trucks used for project construction would utilize the best available noise control techniques (e.g., improved exhaust mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically-attenuating shields or shrouds) in order to minimize construction noise impacts. Equipment used for project construction would be hydraulically or electrically powered impact tools (e.g., jack hammers and pavement breakers) wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. Compressed air exhaust silencers would be used on other equipment. Other quieter procedures would be used such as drilling rather than impact equipment whenever feasible. 	Less than significant
		The construction activity would be kept to the hours of 7:00 AM to 7:00 PM, Monday through Friday. Saturday hours (8:00 AM to 5:00 PM) are permitted upon the discretion of County approval based on input from nearby residents and businesses. Saturday construction (8:00 AM to 5:00 PM) would be allowed once the buildings are fully enclosed.	

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.4 Other Resource Topics (continued)			
Impact NOI-1 (continued)		Mitigation Measure NOI-1 (continued)	
		Residential property owners within 200 feet of planned construction areas shall be notified of the construction schedule in writing, prior to construction; the project sponsor shall designate a "disturbance coordinator" who shall be responsible for responding to any local complaints regarding construction noise; the coordinator (who may be an employee of the developer or general contractor) shall determine the cause of the complaint and shall require that reasonable measures warranted to correct the problem be implemented; a telephone number of the noise disturbance coordinator shall be conspicuously posted at the construction site fence and on the notification sent to neighbors adjacent to the site.	
Impact HAZMAT- <u>1</u> 3		Mitigation Measure HAZMAT-23	
The proposed project would Eexpose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	Potentially significant	Mitigation Measure HAZMAT-23: Individual property owners for lots 1-4 and 9, 10, and 11 shall be responsible for maintaining a fuel break by removing all hazardous flammable materials or growth from the ground around each home for a distance of not less than 100 feet from its exterior circumference, for the life of the project. Property owners of lots listed above shall arrange with the property owner of the open space parcel to obtain legal access to the open space parcel for the purpose of vegetation clearance. This would not include the authorization of tree removal for trees protected by the RM zoning regulations. This requirement shall be recorded as a deed restriction on lots 1 through 4, and 9, 10, and 11 prior to the start of construction on these lots.	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation Mitigation Measures		Level of Significance after Mitigation
4.4 Other Resource Topics (continued)			
Impact HAZMAT-24	ct HAZMAT- <u>2</u> 4 Mitigation Measure HAZMAT- <u>3</u> 4		
The proposed project would Ccreate a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment-related to naturally occurring asbestos.	Potentially significant	Mitigation Measure HAZMAT-34: During the design level geotechnical investigation, representative soil samples shall be obtained for each lot proposed on an area underlain or potentially underlain by serpentine bedrock. These samples shall be tested for the presence of naturally occurring asbestos by a state certified testing laboratory in accordance with requirements of the CARB and the BAAQMD and the results shall be provided to the County Planning Department. If naturally occurring asbestos is identified at the site, a site health and safety (H&S) plan including methods for control of airborne dust shall be prepared. This plan shall be reviewed and approved by the County of San Mateo prior to grading in areas underlain by serpentine-bearing soils or bedrock and naturally occurring asbestos. The H&S plan shall strictly control dust-generating excavation and compaction of material containing naturally occurring asbestos. The plan shall also identify sitemonitoring activities deemed necessary during construction (e.g., air monitoring). Worker monitoring shall also be performed as appropriate. The plan shall define personal protection methods to be used by construction workers. All worker protection and monitoring shall comply with provisions of the Mining Safety and Health Administration (MSHA) guidelines, California Division of Occupational Safety and Health (DOSH), and the Federal Occupational Safety and Health Administration (OSHA).	Less than significant

Environmental Topic and Impact	Level of Significance ntal Topic and Impact before Mitigation M		Level of Significance after Mitigation			
4.4 Other Resource Topics (continued)						
Impact HAZMAT-34 (continued)		Mitigation Measure HAZMAT-43 (continued)				
	If naturally occurring asbestos is found at the site, a Soil Management Plan shall be developed and approved by the County Planning Department to provide detailed descriptions of the control and disposition of soils containing naturally occurring asbestos. Serpentine material placed as fill shall be sufficiently buried in order to prevent erosion by wind or surface water run-off, or exposure to future human activities, such as landscaping or shallow trenches. Additionally, the BAAQMD shall be notified prior to the start of any excavation in areas containing naturally occurring asbestos.					
Impact TRA <u>NS</u> -1		Mitigation Measure TRA <u>NS</u> -1				
The proposed project would not result in significant transportation-related impacts. Cause an intersection to operate unacceptably.	Less than significant	No mitigation measures required.	Less than significant			
Impact UTIL-1		Mitigation Measure UTIL-1				
The proposed project would require hookup to an existing sewage collection system which is at or over capacity, and therefore could potentially result in water quality impacts from sewage overflows.	Potentially significant	Mitigation Measure UTIL-1: The Project Applicant shall mitigate the project-generated increase in sewer flow such that there is a "zero net increase" in flow during wet weather events, by reducing the amount of existing Inflow and Infiltration (INI) into the Crystal Springs County Sanitation District (District) sewer system.	Less than significant			

Environmental Topic and Impact Level of Significance before Mitigation		Mitigation Measures	Level of Significance after Mitigation				
4.4 Other Resource Topics (continued)							
Impact UTIL-1 (continued)		Mitigation Measure UTIL-1 (continued)					
Impact UTIL-2 The proposed project would require the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would not cause significant environmental effects.	Less than significant	This shall be achieved through the construction of improvements to impacted areas of the sewer system, with construction plans subject to District approval. Construction of improvements, as approved by the District, shall be completed prior to the start of the construction of the residences. In addition, as project sewage will be treated by the City of San Mateo's Wastewater Treatment Plant, the Project Applicant shall submit payment of the City of San Mateo Wastewater Treatment Plant Expansion development impact fee to the City of San Mateo. This fee is based on the number of bedrooms in each residential unit and is calculated at the time of the final plans, using the City's fee schedule in effect at the time of the building permit application. Mitigation Measure UTIL-2 No mitigation measures required.	Less than significant				
Impact UTIL-3		Mitigation Measure UTIL-3					
The proposed project would require the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which would not cause significant environmental effects.	Less than significant	No mitigation measures required.	Less than significant				

<u>Table 2.0-2</u> <u>Summary Comparison of Project Alternatives Relative to Major Resource Areas</u>

	Highland Estates Project Impact	Proposed Project Impact (Before Mitigation)	No Project, Residential Use Alternative	Alternative Project Scheme	Reduced Density Alternative
AES-1	The proposed project would alter project views but would not obstruct scenic views from existing off-site and residential areas.	<u>LS</u>	==	=	==
AES-2	The proposed project would construct single-family residences on an undeveloped site in a residential neighborhood but would not degrade the existing visual character of the site.	<u>LS</u>	Ξ	Ξ	=
AES-3	The proposed project would construct new homes on a site that is currently undeveloped but would not visually intrude into an area having natural scenic qualities.	<u>LS</u>	Ξ	Ξ	Ξ
<u>BIO-1</u>	The proposed project would not have a substantial adverse effect on special-status plant species.	<u>LS</u>	≡	Ξ	=
<u>BIO-2</u>	The proposed project could result in a substantial adverse effect on special-status wildlife species.	<u>PS</u> (Less than significant with Mitigation)	<u>=/-</u>	<u>=/-</u>	==
BIO-3	The implementation of the proposed project could result in the loss of protected trees.	<u>PS</u> (Less than significant with Mitigation)	Ξ	Ξ	<u>NI</u>
<u>BIO-4</u>	The proposed project would not significantly effect common fish, wildlife, reptiles, or plant life.	<u>LS</u>	≣	Ξ	=
<u>BIO-5</u>	The proposed project could have a substantial adverse effect on willow scrub habitat (a riparian and sensitive plant community) bordering lot 11.	PS (Less than significant with Mitigation)	Ξ	=	<u>NI</u>

	Highland Estates Project Impact	Proposed Project Impact (Before Mitigation)	No Project, Residential Use Alternative	Alternative Project Scheme	Reduced Density Alternative
<u>BIO-6</u>	The implementation of the proposed project would result in the loss of stands of purple needlegrass, which is a sensitive plant community.	<u>PS;</u> (Less than significant with <u>Mitigation)</u>	Ξ	Ξ	=
<u>BIO-7</u>	Increased human presence would not adversely affect native habitats in the open space area.	<u>LS</u>	=	=	Ξ
<u>BIO-8</u>	The proposed project would include clearing land that has slopes greater than 20%.	PS; (Less than significant with Mitigation)	Ξ	Ξ	Ξ
<u>BIO-9</u>	The implementation of the proposed project could have a substantial adverse effect on a federally protected wetland.	PS; (Less than significant with Mitigation)	Ξ	Ξ	<u>NI</u>
<u>BIO-10</u>	The proposed project would not interfere substantially with the movement of wildlife.	<u>LS</u>	Ξ	=	=
<u>GEO-1</u>	The proposed project would involve development on slopes steeper than 15 percent and could expose people and structures to landslide hazards.	PS; (Less than significant with Mitigation)	<u>=</u>	=	==
<u>GEO-2</u>	The proposed project is located on a geologic unit that may be unstable or could become unstable as a result of the project.	<u>PS;</u> (Less than significant with <u>Mitigation</u>)	Ξ	=	==
<u>GEO-3</u>	The proposed project would not result in substantial soil erosion or the loss of topsoil from grading activities.	<u>LS;</u>	=	=	<u></u>
<u>GEO-4</u>	The proposed project could expose people or structures to potential adverse effects, including the risk of loss, injury, or death involving strong seismic groundshaking.	PS; (Less than significant with Mitigation)	Ξ	Ξ	==

	Proposed Project Impact	No Project, Residential Use	Alternative Project	<u>Reduced</u> <u>Density</u> <u>Alternative</u>
Highland Estates Project Impact	(Before Mitigation)	Alternative	Scheme	
GEO-5 The proposed project could potentially expose residents to substantial risks to life or property from development on expansive soils. KEY PS Potentially significant impact LS Less than significant impact NI No Impact = Impact similar to proposed project Impact less than proposed project +- Impact greater than proposed project Source: Impact Sciences 2008.	PS (Less than significant with Mitigation)	=	Ξ	Ξ