

Cavallo Highlands Residential Project Initial Study



Prepared by

H **HAYWARD**

In Consultation with



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ENVIRONMENTAL CONSULTANTS & PLANNERS

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ACRONYMS AND ABBREVIATIONS

BAAQMD	Bay Area Air Quality Management District
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
EIR	Environmental Impact Report
MND	Mitigated Negative Declaration
NOD	Notice of Determination
PM	Particulate Matter
RWQCB	Regional Water Quality Control Board
TAC	Toxic Air Contaminant
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service

SECTION 1.0 INTRODUCTION AND PURPOSE

1.1 PURPOSE OF THE INITIAL STUDY

The City of Hayward as the Lead Agency has prepared this Initial Study for the Aitken Property Residential Subdivision project in compliance with the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations §15000 et. seq.) and the regulations and policies of the City of Hayward, California.

The project proposes to construct a residential development project on an approximately 8.88-acre property located on the east side of Carden Lane in the City of Hayward. The proposed project would subdivide the site into 22 lots in order to construct 19 single-family residential lots, two open space lots, and one private roadway. This Initial Study evaluates the environmental impacts that might reasonably be anticipated to result from implementation of the proposed project.

1.2 PUBLIC REVIEW PERIOD

Publication of this Initial Study marks the beginning of a 30-day public review and comment period. During this period, the Initial Study will be available to local, state, and federal agencies and to interested organizations and individuals for review. Written comments concerning the environmental review contained in this Initial Study during the 30-day public review period should be sent to:

City of Hayward
Development Services Department
777 B Street
Hayward, CA 94541

Damon Golubics, Senior Planner
(510) 583-4200
Damon.Golubics@hayward-ca.gov

1.3 CONSIDERATION OF THE INITIAL STUDY AND PROJECT

Following the conclusion of the public review period, the City of Hayward will consider the adoption of the Initial Study/Mitigated Negative Declaration (MND) for the project at a regularly scheduled meeting. The City shall consider the Initial Study/MND together with any comments received during the public review process. Upon adoption of the MND, the City may proceed with project approval actions.

1.4 NOTICE OF DETERMINATION

If the project is approved, the City of Hayward will file a Notice of Determination (NOD), which will be available for public inspection and posted within 24 hours of receipt at the County Clerk's Office for 30 days. The filing of the NOD starts a 30-day statute of limitations on court challenges to the approval under CEQA (CEQA Guidelines Section 15075(g)).

SECTION 2.0 PROJECT INFORMATION

2.1 PROJECT TITLE

Cavallo Highlands Residential Project

2.2 PROJECT LOCATION

The approximately 8.88-acre site is located on the east side of Carden Lane in the City of Hayward. The project site is bounded by Stonebrae Road to the north, Country Club Drive to the east, Carden Lane to the west, and Garin Regional Park to the south. Regional and vicinity maps of the project site are shown in Figures 2.2-1 and 2.2-2. An aerial photograph showing surrounding land uses is shown on Figure 2.2-3.

2.3 LEAD AGENCY CONTACT

City of Hayward
Development Services Department
777 B Street
Hayward, CA 94541

Damon Golubics, Senior Planner
(510) 583-4200
Damon.Golubics@hayward-ca.gov

2.4 PROJECT APPLICANT

Carrie Aitken
192 Carrick Circle
Hayward, CA 94542
(949) 697-0440

2.5 ASSESSOR'S PARCEL NUMBER

APN 85A-6428-2

2.6 GENERAL PLAN DESIGNATION AND ZONING DISTRICT

General Plan Designation: *Suburban Density*

Zoning District: *Agricultural*

2.7 PROJECT-RELATED APPROVALS, AGREEMENTS, AND PERMITS

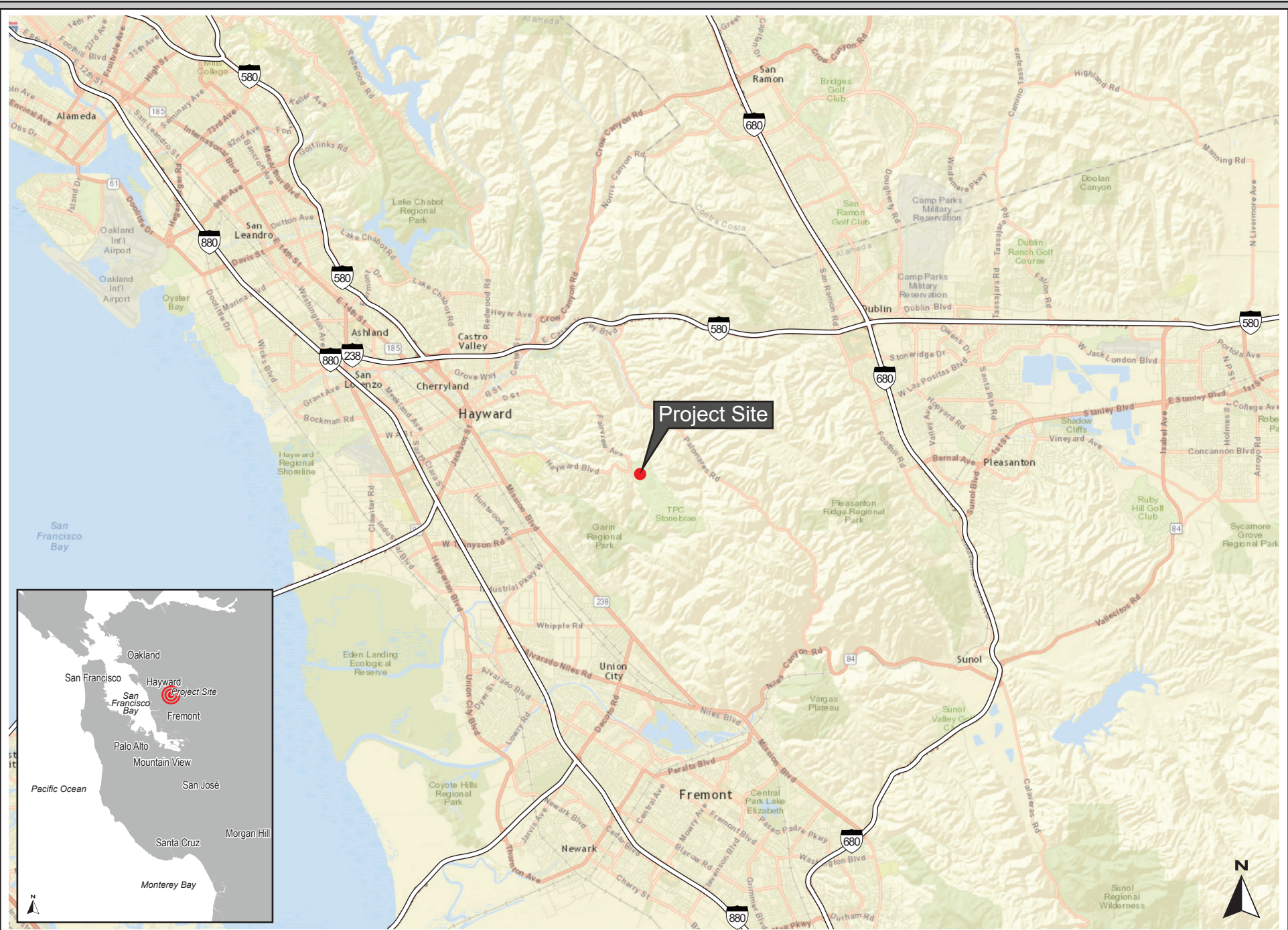
- Planned Development Rezoning
- Tentative Map and Final Map to subdivide the existing parcels
- Grading Permit
- Building Permit
- Design Review

- Protected Tree Removal Permit
- U.S. Army Corps of Engineers 404 Permit
- California Department of Fish and Wildlife Incidental Take Permit
- U.S. Fish and Wildlife Incidental Take Permit
- Regional Water Quality Control Board 401 Permit



VICINITY MAP

FIGURE 2.2-1



REGIONAL MAP

FIGURE 2.2-2



AERIAL PHOTOGRAPH AND SURROUNDING LAND USES

FIGURE 2.2-3

SECTION 3.0 PROJECT DESCRIPTION

3.1 OVERVIEW

The approximately 8.88-acre project site is addressed as 29080 Fairview Avenue in the City of Hayward within a master-planned residential area known as the Stonebrae development, although the project site is not part of Stonebrae. The project proposes to demolish the single residence and associated structures on the site and subdivide the property into 22 lots in order to construct 19 single-family residences (refer to Figure 3.0-1).

3.2 PROPOSED DEVELOPMENT

The project proposes to subdivide the property into 22 lots comprised of 19 single-family residential lots, two open space lots, and a private roadway. The proposed residences would have three to five bedrooms and up to three baths. The proposed lots on the site would range in size from 7,915 to 21,034 square feet (s.f.). The proposed residences would range in size from approximately 3,600 s.f. to 4,200 s.f.

3.2.1 Building Heights and Setbacks

The residences would be set back approximately 20 feet along the private street frontage to allow for driveway apron parking. The residences would be set back approximately 10 feet on the sides, and approximately 15 to 20 feet from the backyards of the smaller internal lots. The setbacks for residences along the outer site boundary would be much larger.

3.2.2 Site Access and Parking

A private roadway that ranges in width between 20 and 36 feet would provide vehicular and pedestrian access to the site. The proposed residences would be constructed with two- to three-car garages to provide parking for residents of the site. In addition, project driveways of each unit would accommodate a minimum of two (2) cars and guest parking would also be available along the private internal roadways.

3.2.3 Landscaping

Due to the slopes on the site, the lot sizes have been limited to retain the natural hillside character with smaller formal landscaping areas provided due to the slopes on the site. The front yard of each residence will include variations of landscaping including small trees, shrubs, and grasses. Landscaping included on the two open space lots would be maintained by the Homeowners Association.

3.2.4 Demolition and Grading

Demolition activities on the site would involve the removal of an existing residence and associated structures.

The proposed project will require some grading for building pads and roadway construction. The project would require an estimated 66,000 cubic yards of cut that would be reused as fill on the site,

with no remaining soil to be exported off-site. Minor retaining walls are proposed at various locations on the site ranging up to six feet in height.

3.2.5 Construction Schedule

The project is anticipated to require 16 months to complete from demolition and grading through construction of the proposed residences. Grading of the site is anticipated to take approximately three months to complete. Three model homes will be constructed during initial project construction and the other proposed residences will be constructed at a predetermined pace.

3.2.6 Utility Improvements

The project proposes to connect to existing sanitary sewer and water lines. All on-site sanitary sewer and water lines will be publicly owned and maintained by the City of Hayward. A separate irrigation meter and service will be furnished for common area landscaping. The proposed project would construct an eight-inch sanitary sewer line between lots 2 and 3 that would connect to an existing line on Country Club Drive through a sanitary sewer easement on the adjacent Stonebrae property. The proposed project would utilize an existing connection to the Stonebrae water line.

3.2.7 Drainage Improvements

The project proposes to construct common open space areas that are landscaped and would include permeable pavers to retain and minimize stormwater runoff. The roof impervious areas will direct stormwater flows directly to vegetated areas located on each lot that would drain into the existing bio-swale located northwest of the site. The on-site storm drain shall be private, owned and maintained by the Homeowners Association.



FIGURE 3.0-1

SECTION 4.0 ENVIRONMENTAL CHECKLIST AND IMPACT DISCUSSION

This section presents the discussion of impacts related to the following environmental subjects in their respective subsections:

4.1	Aesthetics	4.10	Land Use and Planning
4.2	Agricultural and Forestry Resources	4.11	Mineral Resources
4.3	Air Quality	4.12	Noise and Vibration
4.4	Biological Resources	4.13	Population and Housing
4.5	Cultural Resources	4.14	Public Services
4.6	Geology and Soils	4.15	Recreation
4.7	Greenhouse Gas Emissions	4.16	Transportation/Traffic
4.8	Hazards and Hazardous Materials	4.17	Utilities and Service Systems
4.9	Hydrology and Water Quality	4.18	Mandatory Findings of Significance

The discussion for each environmental subject includes the following subsections:

- **Environmental Checklist** – The environmental checklist, as recommended by CEQA, identifies environmental impacts that could occur if the proposed project is implemented. The right-hand column of the checklist lists the source(s) for the answer to each question. The sources are identified at the end of this section.
- **Impact Discussion** – This subsection discusses the project’s impact as it relates to the environmental checklist questions. For significant impacts, feasible mitigation measures are identified. “Mitigation measures” are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines Section 15370). Each impact is numbered using an alphanumeric system that identifies the environmental issue. For example, **Impact GEO – 1** denotes the first potentially significant impact discussed in the Geology and Soils section. Mitigation measures are also numbered to correspond to the impact they address. For example, **MM BIO – 2.2** refers to the second mitigation measure for the second impact in the Biological Resources section.

Important Note to the Reader

The California Supreme Court in a December 2015 opinion [*California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal. 4th 369 (No. S 213478)] confirmed that CEQA, with several specific exceptions, is concerned with the impacts of a project on the environment, not the effects the existing environment may have on a project. Therefore, the evaluation of the significance of project impacts under CEQA in the following sections focuses on impacts of the project on the environment, including whether a project may exacerbate existing environmental hazards.

The City of Hayward currently has policies that address existing conditions (e.g., air quality, noise, and hazards) affecting a proposed project, which are also addressed in this section. This is consistent with one of the primary objectives of CEQA and this document, which is to provide objective

information to decision-makers and the public regarding a project. The CEQA Guidelines and the courts are clear that a CEQA document (e.g., EIR or Initial Study) can include information of interest even if such information is not an “environmental impact” as defined by CEQA.

Therefore, where applicable, in addition to describing the impacts of the project on the environment, this chapter will discuss Planning Considerations that relate to policies pertaining to existing conditions. Such examples include, but are not limited to, locating a project near sources of air emissions that can pose a health risk, in a floodplain, in a geologic hazard zone, in a high noise environment, or on/adjacent to sites involving hazardous substances.

4.1 AESTHETICS

4.1.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒	1,2
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐	1,2
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐	1
d) Create a new source of substantial light or glare which will adversely affect day or nighttime views in the area?	☐	☐	☒	☐	1,2,3

4.1.2 Existing Setting

The project site is a grassy hillside with a private driveway extending from the base of the hill on the western portion of the property, to the top of the hillside where the existing one-story single-family residence is located (see Photos 1 through 4). The project site is bounded by Stonebrae Road to the north and east, Carden Lane to the west, a golf course to the south, and Garin Regional Park to the southwest. Stonebrae Elementary School is located approximately 300 feet northwest of the project site across Carden Lane.

4.1.2.1 *Surrounding Visual Character*

The project site is surrounded on three sides by existing suburban development that has been constructed since the mid-1990s and roadways. Two-story, single-family homes with stucco finishes are located north of the site. Stonebrae Elementary School is located northwest of the site. Single-family homes, as part of the full build-out of Stonebrae Country Club, are in the process of being constructed southeast of the site. Stonebrae golf course and Garin Regional Park are substantial open space areas located south and southwest of the site. There are numerous large, mature trees on the property and on surrounding properties, in particular in the nearby Garin Regional Park.

4.1.2.2 *Scenic Views*

The hillside of the project site rises above the surrounding residential development to the west and can be seen from various locations in the surrounding neighborhoods. Views of the San Francisco Bay and the East Bay Hills are present from the project site. The project site has remained vacant and mostly undeveloped and no historic buildings (refer to *Section 4.5 Cultural Resources*), are present on the site. Numerous mature trees (refer to *Section 4.4 Biological Resources*) are present on-site. The site is slightly visible from Garin Regional Park located south and southwest of the project site and Jalquin Vista Park located southwest of the project site.



PHOTO 1: View of the project driveway from Carden Lane looking east.



PHOTO 2: View from the project site looking northeast at the adjacent development, Stonebrae Country Club, and drainage basin below Stonebrae Road.



PHOTO 3: View of the project site from Stonebrae Road looking south.



PHOTO 4: View of the existing home on the eastern portion of the property facing north.

4.1.2.3 *Applicable Plans, Policies, and Regulations*

City of Hayward General Plan

The Land Use and Community Character Element contains policies to preserve scenic views of the City. The proposed project would be subject to conformance with applicable General Plan policies, including those listed below.

Policies	Description
Policy LU-1.2	The City shall maintain and implement commercial, residential, industrial, and hillside design guidelines to ensure that future development complies with General Plan goals and policies.
Policy LU-7.2	The City shall discourage the placement of homes and structures near ridgelines to maintain natural open space and preserve views. If ridgeline development cannot be avoided, the City shall require grading, building, and landscaping designs that mitigate visual impacts and blend the development with the natural features of the hillside.
Policy LU-7.3	The City shall require curvilinear street patterns in hillside areas to respect natural topography and minimize site grading.
Policy LU-7.4	The City shall encourage narrow streets in hillside areas. Streets should be designed with soft shoulders and drainage swales (rather than sidewalks with curbs and gutters) to maintain the rural character of hillside areas and minimize grading impacts. The City shall prohibit parking along narrow street shoulders to provide space for residents to walk and ride horses.
Policy LU-7.5	The City shall encourage the clustering of residential units on hillsides to preserve sensitive habitats and scenic resources as natural open space. Sensitive areas and scenic resources include woodlands, streams and riparian corridors, mature trees, ridgelines, and rock outcroppings.
Policy NR-8.1	The City shall regulate the design of streets, sidewalks, cluster home development, architecture, site design, grading, landscaping, utilities, and signage in hillside areas to protect aesthetics, natural topography, and views of surrounding open space through the continued Hillside Design and Urban/Wildland Interface Guidelines.
Policy NR-8.2	The City shall require low-impact site grading, soils repair, foundation design, and other construction methods to be used on new residential structures and roadways above 250 feet in elevation to protect aesthetics, natural topography, and views of hillsides and surrounding open space.
Policy NR-8.4	The City shall maintain and implement residential and non-residential design guidelines in order to protect existing views of the Bay shoreline.

4.1.3 **Impact Discussion**

a) *Have a substantial adverse effect on a scenic vista?*

According to the Hayward General Plan, there are no designated scenic vistas in the vicinity of the project and the project is not located within or visible from a designated scenic vista. Due to intervening topography, the site is not prominently visible from Garin Park. Therefore, the project would not have an impact on scenic vistas. **(No Impact)**

- b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

The project site is not located within a state scenic highway, nor does it contribute to views visible from a state scenic highway. Therefore, the construction of the project would not have impacts on state scenic highways.

The project site contains small rock outcroppings scattered throughout the site that the City of Hayward has not identified as a significant visual resource in the Natural Resources Element of the General Plan. The rock outcroppings are not substantially visible from public views of the project site, and therefore, the removal of the rock outcroppings during project construction would be a less than significant impact.

The site is a grassy hillside with scattered blackwood acacia, big leaf maple, plum, pine, olive, blue gum, coast live oak, red willow, and California bay trees. Approximately 76 of the total 78 trees proposed to be removed are protected under the City of Hayward Tree Preservation Ordinance (refer to *Section 4.4 Biological Resources*). The trees, however, are not considered to be an irreplaceable scenic resource since most of the species (with the exception of the big leaf maple, coast live oak, red willow, and California bay) are not indigenous to the region, and the project will pay tree removal fees to fund tree replanting to offset the loss of on-site trees. The project does not include substantial new landscaping, fences, or other changes in the natural environment, consistent with General Plan policies. **(Less Than Significant Impact)**

- c) *Substantially degrade the existing visual character or quality of the site and its surroundings?*

The project would place single-family development on a mostly undeveloped site consisting mainly of gently sloping grasslands. Although the proposed development would occur on a hillside, views of the site are limited to surrounding local streets including Hayward Boulevard, Stonebrae Road, and Carden Lane, and the project proposes new residential development in keeping with the scale and character of the recent residential development in the area. Additionally, the project proposes extensive grading that would serve to lower the elevation of the proposed single-family homes 20 feet below the existing grade.

The project would introduce structures that would be primarily visible from existing neighborhoods and roads surrounding the site. In addition, the project site is in a suburban setting with existing single-family development, a school, and recreational uses. Placement of homes on the slope 20 feet below the existing grade would reduce the height of the proposed houses, thus reducing the overall impact of the development viewed from Stonebrae Road and Hayward Boulevard. The proposed project would alter the visual character of the site by removing numerous mature trees and rock outcroppings. The aesthetic character of the proposed development, however, would be in keeping with the surrounding area and, therefore, would result in a less than significant impact. **(Less Than Significant Impact)**

- d) *Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?*

The project site is in a suburban setting, surrounded by residences, a golf course, and Garin Regional Park. The project would introduce development including street lights and private residential lighting to a mostly undeveloped site which would create new sources of light and glare compared to the project site's existing condition. The project will comply with the City's Municipal Code and design requirements relating to aesthetics, light and glare, which are intended to prevent spillover light and minimize impacts related to the introduction of new light sources as a standard condition of approval (Hayward Municipal Code (HMC) Section 10-1.445(j)). Therefore, the additional light and glare created by the project would be in keeping with that produced by surrounding residential development and a less than significant impact. **(Less Than Significant Impact)**

4.1.4 Conclusion

Implementation of the proposed project would not result in significant adverse visual or aesthetic impacts. **(Less Than Significant Impact)**

4.2 AGRICULTURAL AND FORESTRY RESOURCES

4.2.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒	1,2,4
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐	1,2,4
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒	1,2,4
d) Result in a loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒	1,2,4
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐	1,2,4

4.2.2 Existing Setting

The project site has been developed with a residential structure and associated outbuildings since the 1930's. According to the *Alameda County Important Farmland 2014* map, the project site is designated as *Grazing Land*, meaning that the land contains existing vegetation that is suited to the grazing of livestock.¹ The site is currently zoned *Agricultural*, which allows for crop and tree farming; a farm or ranch; selling of fruits, vegetables, and flowers; a single-family residence; a Christmas tree or pumpkin patch lot; a day care home; public agency facility; or a group home for six or fewer residents.

The surrounding land uses are primarily suburban in nature, including single-family residences, Stonebrae Elementary School, Stonebrae Golf Course, and Garin Regional Park. Although Garin Regional Park is zoned *Agricultural*, it is currently used as a regional open space.

¹ California Department of Conservation, Division of Land Resource Protection. *Alameda Mateo County Important Farmland 2014 Map*. 2016.

4.2.3 Impact Discussion

- a – b) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use? Conflict with existing zoning for agricultural use, or Williamson Act contract?*

The project site is designated as *Grazing Land*; therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses. Although the project would rezone the site from *Agricultural* to *Planned Development Zoning*, the project would have minimal impact on agricultural resources or operations due to the size of the site and lack of substantial agricultural use of the site or surrounding area. **(Less Than Significant Impact)**

- c – d) *Conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production? Result in a loss of forest land or conversion of forest land to non-forest use?*

“Forest land” is defined as land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. “Timberland” means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees.

While the site does contain numerous mature trees, the site and surrounding area is not used or zoned for timberland or forest land. Therefore, the project would not impact timberland or forest land. **(No Impact)**

- e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

According to the *Alameda County Important Farmland 2014* map, the project site and surrounding area are designated as *Grazing Land*. The project site is located on the edge of Garin Regional Park to the south, which is primarily designated as *Grazing Land*. The development of the project site would not result in conversion of any forest or farmlands. **(Less Than Significant Impact)**

4.2.4 Conclusion

The project would not result in significant impacts to agriculture or forestry resources. **(Less Than Significant Impact)**

4.3 AIR QUALITY

The following discussion is based in part on a Construction TAC Analysis prepared by *Illingworth & Rodkin, Inc.* in August 2016. A copy of this report is attached as Appendix A.

4.3.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐	1,5
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐	1,6
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard including releasing emissions which exceed quantitative thresholds for ozone precursors?	☐	☐	☒	☐	1,6
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐	1,6,7
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐	1,6

4.3.2 Background

Air quality and the amount of a given pollutant in the atmosphere are determined by the amount of a pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain and for photochemical pollutants, sunshine.

The U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for what are commonly referred to as "criteria pollutants," because they set the criteria for attainment of good air quality. Criteria pollutants include carbon monoxide, ozone, nitrogen dioxide, sulfur dioxide, and particulate matter (PM).

4.3.2.1 *Climate and Topography*

The project site is located in Alameda County, which is part of the San Francisco Bay Area Air Basin. The project area's proximity to both the Pacific Ocean and the San Francisco Bay has a moderating influence on its climate.

4.3.2.2 *Regional and Local Criteria Pollutants*

Major criteria pollutants, listed in “criteria” documents by the USEPA and CARB include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and suspended particulate matter. These pollutants can have health effects such as respiratory impairment and heart/lung disease symptoms. Ambient air quality standards have been established at both the state and federal level. Violations of ambient air quality standards are based on air pollutant monitoring data and are judged for each air pollutant. Areas with air quality that exceed adopted air quality standards are designated as “nonattainment” areas for the relevant air pollutants. Nonattainment areas are sometimes further classified by degree (marginal, moderate, serious, severe, and extreme for ozone, and moderate and serious for carbon monoxide and PM₁₀) or status (“nonattainment-transitional”). Areas that comply with air quality standards are designated as “attainment” areas for the relevant air pollutants. “Unclassified” areas are those with insufficient air quality monitoring data to support a designation of attainment or nonattainment, but are generally presumed to comply with the ambient air quality standard. State Implementation Plans must be prepared by states for areas designated as federal ambient air quality standard.

The Bay Area is considered a non-attainment area for ground-level ozone and fine particulate matter (PM_{2.5}) under both the federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for respirable particulates or particulate matter with a diameter of less than 10 micrometers (PM₁₀) under the California Clean Air Act, but not the federal act. High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling emissions of these precursor pollutants is the focus of the Bay Area’s attempts to reduce ozone levels. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort. Elevated concentrations of PM₁₀ and PM_{2.5} are the result of both region-wide (i.e. cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

4.3.2.3 *BAAQMD Guidelines*

The Bay Area Air Quality Management District (BAAQMD) is the regional agency tasked with managing air quality in the region. The BAAQMD is primarily responsible for assuring that the federal and state ambient air quality standards are maintained in the San Francisco Bay Area. As noted above, air quality standards are set by the federal government (the 1970 Clean Air Act and its subsequent amendments) and the state (California Clean Air Act and its subsequent amendments).

Regional air quality management districts such as BAAQMD must prepare air quality plans specifying how state air quality standards would be met. BAAQMD’s most recently adopted plan is the Bay Area 2017 Clean Air Plan (2017 CAP). The 2017 CAP focuses on two closely-related BAAQMD goals: protecting public health and protecting the climate. To protect public health, the Plan describes how the BAAQMD will continue its progress toward attaining all State and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities.

The 2017 CAP includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic

air contaminants; to reduce emissions of methane and other “super-GHGs” that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion. The BAAQMD has published CEQA Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects. The thresholds of significance for construction- and operation-related pollutant emissions are shown in Table 4.3-1.

Table 4.3-1 Thresholds of Significance Used in Air Quality Analyses			
Pollutant	Construction	Operation-Related	
	Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)	Maximum Annual Emissions (tons/year)
ROG, NO _x	54	54	10
PM ₁₀	82 (exhaust)	82	15
PM _{2.5}	54 (exhaust)	54	10
Fugitive Dust (PM ₁₀ /PM _{2.5})	Best Management Practices	None	None
Risk and Hazards for New Sources and Receptors (Project)	Same as Operational Threshold	- Increased cancer risk of >10.0 in one million - Increased non-cancer risk of > 1.0 Hazard Index (chronic or acute) - Ambient PM_{2.5} increase: > 0.3 μ/m³ [Zone of influence: 1,000-foot radius from property line of source or receptor]	
Risk and Hazards for New Sources and Receptors (Cumulative)	Same as Operational Threshold	- Increased cancer risk of >100 in one million - Increased non-cancer risk of > 10.0 Hazard Index (chronic or acute) - Ambient PM_{2.5} increase: > 0.8 μ/m³ [Zone of influence: 1,000-foot radius from property line of source or receptor]	
Sources: BAAQMD Thresholds Options and Justification Report (2009) and BAAQMD CEQA Air Quality Guidelines (dated May 2011).			

4.3.2.4 Local Community Risks/Toxic Air Contaminants and Fine Particulate Matter

Besides criteria air pollutants, there is another group of substances found in ambient air referred to as Toxic Air Contaminants (TACs). These contaminants tend to be localized and are found in relatively low concentrations in ambient air. Exposure to low concentrations over long periods, however, can result in adverse chronic health effects. Diesel exhaust is a predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average).

Fine Particulate Matter (PM_{2.5}) is a complex mixture of substances that includes elements such as carbon and metals; compounds such as nitrates, organics, and sulfates; and complex mixtures such as diesel exhaust and wood smoke. Long-term and short-term exposure to PM_{2.5} can cause a wide range of health effects. Common stationary sources of TACs and PM_{2.5} include gasoline stations, dry

cleaners, diesel backup generators, and motor vehicles. The other, more significant, common source is motor vehicles on roadways and freeways.

4.3.2.5 Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. For cancer risk assessments, children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations are assumed to include infants and small children.

4.3.2.6 Construction TAC and PM_{2.5} Health Risks

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. These exhaust air pollutant emissions would not be considered to contribute substantially to existing or projected air quality violations. Construction exhaust emissions may still pose health risks for sensitive receptors such as surrounding residents and school children. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to PM_{2.5}. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. The closest sensitive receptors to the project site are the single-family dwellings to the east and Stonebrae Elementary School adjacent to the western property boundary.

4.3.3 Impact Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

The proposed project will not conflict with the latest Clean Air planning efforts since; (1) the project's operational emissions would be well below the BAAQMD thresholds of significance for air pollutants as discussed below in Section 4.3.3(b) and (2) due to the project's small size (19 units). **(Less Than Significant Impact)**

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

The 2011 BAAQMD CEQA Air Quality Guidelines contain a screening table that lists the minimum unit count for single-family residential projects, below which the project would not result in the generation of operational or construction criteria air pollutants, or greenhouse gas emissions, that exceed the threshold of significance. The project proposes 19 residences on the site and, as summarized in Table 4.3-2 below, the screening threshold for operational criteria pollutants is 325 units; for operational greenhouse gas emissions is 56 units; and for construction criteria pollutants is 114 units. The proposed residential development would not exceed the screening level for operational and construction criteria pollutants or greenhouse gas emissions and, therefore, the project would not result in significant air quality impacts. **(Less Than Significant Impact)**

Table 4.3-2 Criteria Air Pollutants and Precursors and GHG Screening Level Size			
Land Use Type	Operational Criteria Pollutant Screening Size	Operational GHG Screening Size	Construction Criteria Pollutant Screening Size
Single-family Residences	325 units	56 units	114 units
Below screening threshold?	Yes	Yes	Yes

- c) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard including releasing emissions which exceed quantitative thresholds for ozone precursors?*

Non-attainment pollutants of concern for the San Francisco Bay Air Basin are ozone, PM₁₀ and PM_{2.5}. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. As discussed in impact (b) above, the project size is below the BAAQMD's screening thresholds, therefore, the project's operational and construction emissions would be less than significant. In addition, construction on the site will be required to implement BAAQMD's Best Management Practices for dust control in accordance with the City's General Plan policies. **(Less Than Significant Impact)**

- d) *Expose sensitive receptors to substantial pollutant concentrations?*

Construction Dust Emissions

Construction dust could affect local air quality at various times during construction of the project. The dry, windy climate of the area during the summer months creates a high potential for dust generation when and if underlying soils are exposed to the atmosphere. Construction activities would increase dustfall and locally elevated levels of PM₁₀ downwind.

Nearby land uses, particularly sensitive receptors adjacent to the project site, could be affected by dust generated during construction activities.

Impact AQ – 1: The project would generate dust during construction activities that would affect nearby sensitive receptors. **(Significant Impact)**

Mitigation Measure: The project shall implement the following mitigation measure to ensure project impacts from construction are reduced to a less than significant level:

MM AQ – 1.1: During any construction period which causes ground disturbance, the applicant shall ensure that the project contractor implement measures to control dust and exhaust. Implementation of the measures

recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less than significant level. The contractor shall implement the following best management practices that are required of all projects:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- 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.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- 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.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five (5) minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Construction TAC and PM_{2.5} Health Risks

Construction activity is anticipated to include demolition, grading and site preparation, trenching, building construction, and paving. A health risk assessment of the project construction activities was completed (see Appendix A) that evaluated potential health effects of sensitive receptors at nearby residences and Stonebrae Elementary School from construction emissions of DPM and PM_{2.5}. Construction period emissions were modeled using the California Emissions Estimator Model, Version 2013.2.2 (CalEEMod).

Increased cancer risks were calculated using the maximum modeled concentrations for 2017 and BAAQMD recommended risk assessment methods for infant exposure (3rd trimester through two years of age) and for an adult exposure. The cancer risk calculations were based

on applying the BAAQMD recommended age sensitivity factors to the TAC concentrations, as described above. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. Infant, child, and adult exposures were assumed to occur at all residences through the entire construction period.

The CalEEMod analysis completed for the project evaluated a larger, earlier version of the project at 33 residential units with 58,000 cubic yards of cut, 57,000 cubic yards of fill, and 500 cubic yards of soil export. The current project that is being analyzed in this Initial Study has been reduced in size to 19 units and associated grading quantities have increased to approximately 66,000 cubic yards of cut and fill that would be redistributed on-site, with no remaining soil to be exported off-site. The air quality consultant who modeled construction activity has confirmed that with the additional approximately 8,000 cubic yards of cut and 9,000 cubic yards of fill proposed by the project, the conclusions of this construction health risk analysis remain valid that construction impacts would have a significant impact on existing residents and students in the project vicinity requiring mitigation.²

The maximum community risk impacts associated with project construction are shown in Table 4.3-3. Results of the assessment for project construction indicate the maximum incremental residential child cancer risk at the maximally exposed individual MEI receptor would be 44.7 in one million and the residential adult incremental cancer risk would be 0.8 in one million. The maximum-modeled annual PM_{2.5} concentration, which is based on combined exhaust and fugitive dust emissions, would be 0.46 µg/m³, which exceeds the BAAQMD significance criterion of 0.3 µg/m³. The maximum modeled annual residential diesel particulate matter (DPM) concentration (i.e., from construction exhaust) was 0.2048 µg/m³, which is lower than the reference exposure level. The maximum hazard index (HI) based on this DPM concentration is 0.11 which is lower than the BAAQMD significance criterion of a hazard index greater than 1.0.

The maximum modeled annual PM_{2.5} concentration at Stonebrae Elementary School was found to be 0.09 µg/m³. The cancer risk for child exposure was computed to be 1.3 in one million which is below the BAAQMD single-source significance thresholds. The maximum-modeled DPM concentration was 0.0368 µg/m³ and the non-cancer HI based on this DPM concentration was calculation as 0.01, which is much lower than the BAAQMD significance criterion.

² Reyff, James. President. *Illingworth & Rodkin, Inc.*, Personal Communication via Email. March 15, 2018.

Table 4.3-3 Construction Source Health Risks at Nearby Receptors						
Source	Cancer Risk (Per Million)		PM _{2.5} Concentration (µg/m ³)		Acute and Chronic Hazard (HI)	
	Residence	School	Residence	School	Residence	School
Proposed Project Construction Unmitigated	Infant = 44.7 Adult = 0.8	Child = 1.3	0.46	0.09	0.04	0.01
BAAQMD Thresholds Single Source	10.0		0.3		1.0	
Significant?	Yes		No		No	
Proposed Project Construction Mitigated	Infant= 1.4 Adult=0.0	Child= 0.01	~0	~0	~0	~0
Significant After Mitigation?	No		No		No	

Impact AQ – 2: Construction of the proposed project would generate significant quantities of toxic air contaminant emissions. **(Significant Impact)**

Mitigation Measure: The project shall implement the following mitigation measure to ensure project impacts from construction TACs are reduced to a less than significant level:

MM AQ – 2.1: The project shall develop a plan demonstrating that the off-road equipment used on-site to construct the project would achieve a fleet-wide average 78 percent reduction in DPM exhaust emissions. One feasible plan to achieve this reduction would include the following:

- All mobile diesel-powered off-road equipment larger than 50 horsepower and operating on the site for more than two days continuously shall meet, at a minimum, U.S. EPA particulate matter emissions standards for Tier 4 engines or equivalent. The use of equipment that includes CARB-certified Level 3 Diesel Particulate Filters or alternatively-fueled equipment (i.e., non-diesel) would meet this requirement. Other measures may include the use of added exhaust devices, or a combination of measures, provided that these measures are approved by the City and demonstrated to reduce community risk impacts to less than significant.
- The project shall be required to implement the measures listed above as conditions of approval. These measures shall be placed on project plan documents prior to issuance of any building permits for the project. The proposed project, therefore, would not result in a significant air quality impact due to construction

dust emissions. **(Less Than Significant Impact With Mitigation)**

Roadway TAC Health Risks

In accordance with the City of Hayward's Community Risk Reduction Plan, the project's future residents would not be exposed to elevated levels of TACs since no high-volume roadways or other TACs sources are in the vicinity of the project site.

- e) *Create objectionable odors affecting a substantial number of people?*

Implementation of the proposed project would not create objectionable odors affecting a substantial number of people near the site. No new stationary odor sources are anticipated as part of the project and there are no odor sources in the vicinity of the site that would emit substantial odors with the potential to impact future project residents. **(Less Than Significant Impact)**

4.3.4 Conclusion

With the implementation of MM AQ – 1.1, and MM AQ – 2.1, the proposed project would have a less than significant impact on air quality. **(Less Than Significant Impact With Mitigation)**

4.4 BIOLOGICAL RESOURCES

This discussion is based in part on the Updated Final Biological Constraints Analysis, Tree Inventory and Valuation, and Wetland Delineation prepared by LSA. The reports are attached in Appendix B of this Initial Study.

4.4.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)?	☐	☒	☐	☐	1,8,10
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?	☐	☐	☐	☒	1,9,10
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐	1,9
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites?	☐	☒	☐	☐	1,10
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐	1,2,8
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒	1,2,10

4.4.2 Existing Setting

4.4.2.1 *Existing Conditions*

The project site occurs on a hillside near Garin Regional Park and contains numerous mature trees on site and along the southeastern perimeter. The project site contains a 280-foot-long swale that conveys intermittent flows towards an off-site detention basin located northwest of the project site.

An LSA biologist conducted a reconnaissance-level general field survey of the site on February 3, 2016. Additional surveys were conducted by LSA biologists on May 6, 2016; June 1, 2016; May 11, 2017, and April 19, 2018. The purposes of these surveys were to evaluate the site's potential to support special-status species and sensitive natural communities, delineate potential jurisdictional features, inventory trees on the site, and conduct focused surveys for a rare plant.

Vegetation

The project site is composed of a mixture of non-native annual grassland, scattered planted ornamental and fruit trees, a grove of eucalyptus trees, a grove of California bay laurel (*Umbellularia californica*) trees, and other native trees including coast live oak (*Quercus agrifolia*), red willow (*Salix laevigata*), and big leaf maple (*Acer macrophyllum*). Coyote brush (*Baccharis pilularis*) is the most common shrub species on the property, followed by poison oak (*Toxicodendron diversilobum*). A small area with standing water south of the driveway and outside the gate supports a few rush (*Juncus effuses*) plants. Italian thistle (*Carduus pycnocephalus*) is present, most dominantly in the flat parts of the swale on the north side of the site.

Most of the site is covered with non-native annual grasslands typical of historically grazed ranches in the area. It is dominated by Italian ryegrass (*Lolium multiflorum*), clovers (*Trifolium* sp.) and other small herbaceous plants. A small patch of bracken fern (*Pteridium aquilinum pubescens*) grows out of the grassland on the north side of the property, on the steep north-facing slope on the southern side of the drainage ditch. Several rock outcroppings are scattered throughout the grasslands.

A grove of approximately 50 eucalyptuses with a diameter at breast height (DBH) of eight inches or more is present on the eastern side of the property. A small grove of California bay laurels is growing in a rock outcrop in the southeastern corner of the property. There are approximately 26 trunks with a DBH of eight inches or more in the grove. The largest trunk had a DBH of approximately 40 inches.

Wildlife

The project site provides suitable habitats for many wildlife species, especially those that are adapted to high levels of human disturbance.

The grassland has consistently been grazed by horses, and a few cattle were also grazing the site at the time of the April 2018 site visit. Less rocky portions of the grasslands were observed to have meadow vole (*Microtus californicus*) runways and Botta's pocket gopher (*Thomomys bottae*) burrows.

Small mammals present at the site attract avian predators including the white-tailed kite (*Elanus leucurus*) and red-tailed hawk (*Buteo jamaicensis*). No nests were observed in the eucalyptus grove, but the large trees provide potentially suitable nest locations for red-tailed hawks, owls, and other bird species. Some of the trees have cavities that could be used by nesting birds. The nests of most native birds are protected under the federal Migratory Bird Treaty Act and Section 3503 of the California Fish and Game Code.

Regulated Waters and Wetlands

The U.S. Army Corps of Engineers (Corps) is responsible under Section 404 of the Clean Water Act to regulate the discharge of fill material into Waters of the U.S.

LSA conducted a wetland delineation of the site on May 6, 2016. According to the wetland delineation prepared by LSA, the ephemeral swale that runs along the northern side of the property had flowing water at the time of the reconnaissance-level field survey in February 2016. Near its western end, stormwater flow enters a culvert which then carries the water to an off-site constructed detention basin. The Corps conducted a field survey of the site on May 11, 2017, and provided a letter verifying the preliminary jurisdiction dated October 26, 2017. The swale qualifies as a jurisdictional tributary, classified as a non-relatively permanent water, intermittent riverine. The jurisdictional area of this tributary is approximately 280 square feet.

Special-Status Species

State and federal “endangered species” legislation has provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Permits may be required from both the CDFW and USFWS if activities associated with a proposed project would result in the incidental “take” of a species that is listed as endangered or threatened. To “take” a listed species, as defined by the state of California, is “to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill” said species (California Fish and Game Code, Section 86).

Plant Species

The California Natural Diversity Database (CNDDB) contained occurrences for six special-status plant species within five miles of the site. The two occurrences for one of these species, alkali milk-vetch (*Astragalus tener* var. *tener*) are considered extirpated, and no suitable vernal pool habitat is present on the site. The remaining five species include the Diablo helianthella (*Helianthella castanea*), Hairless Popcornflower (*Plagiobothrys glaber*), Most Beautiful Jewelflower (*Streptanthus albidus* ssp. *peramoenus*), Oregon Polemonium (*Polemonium carneum*), and Santa Cruz Tarplant (*Holocarpha macradenia*). The project site contains marginally suitable habitat for only one of these species, Diablo helianthella. Two focused surveys by LSA biologists during the species’ blooming period in 2017 and 2018 did not detect the species, so it is now considered to be absent from the site.

Animal Species

There is little or no potential for most special-status species to occur on the property due to habitat degradation or lack of suitable habitat on the site. However, there is some potential for one special-status animal species to occur.

A special-status species with a high potential to occur on the site is the San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*). Two houses built by woodrats were present within 50 feet of the southern boundary of the site during LSA's site visits in 2016 and 2018. Special-status species with a moderate potential to occur on the site include the California red-legged frog (*Rana draytonii*) and white-tailed kite (*Elanus leucurus*). Special-status species with a low potential to occur on the site include the pallid bat (*Antrozous pallidus*), golden eagle (*Aquila chrysaetos*), and Alameda striped racer (*Coluber lateralis euryxanthus*) (formerly known as the Alameda whipsnake [*Masticophis lateralis euryxanthus*]).

Mature Trees

The City's Municipal Code Chapter 10, Article 15 Tree Preservation Ordinance states that "no person shall remove, destroy, perform cutting of branches over one inch in diameter, or disfigure or cause to be removed or destroyed or disfigured any Protected Tree without having first obtained a permit to do so."

Hayward Municipal Code Chapter 10-15.13 defines a protected as: any tree having a minimum trunk diameter of eight inches measured at 54 inches above the ground; street trees or other trees such as those required as a condition of approval, Use Permit, or other Zoning requirement, regardless of size; all memorial trees dedicated by an entity recognized by the City, and all specimen trees that define a neighborhood or community; trees of the following species that have reached a minimum of four inches in diameter trunk size: big leaf maple (*Acer macrophyllum*), California buckeye (*Aesculus californica*), Pacific madrone (*Arbutus menziesii*), western dogwood (*Cornus nuttallii*), Western sycamore (*Platanus racemosa*), coast live oak (*Quercus agrifolia*), canyon live oak (*Quercus chrysolepis*), blue oak (*Quercus douglasii*), Oregon white oak (*Quercus garryana*), California black oak (*Quercus kelloggii*), valley oak (*Quercus lobata*), interior live oak (*Quercus wislizenii*), California bay (*Umbellularia californica*); and any tree or trees of any size planted as replacement for a protected tree. When measuring a multi-trunk tree, the diameters of the largest three trunks are added together.

A tree survey was completed in June 2016 and identified 78 trees of 11 different species present on the project site. The trees were reevaluated in April 2018, and there were no significant changes in the condition or size of any of the trees.

Of the 78 trees on the site that were inventoried, 76 trees are protected by the Hayward Tree Preservation Ordinance. As summarized in Table 4.4-1, the survey identified one blackwood acacia (*Acacia melanoxylon*), one big leaf maple, one deodar cedar (*Cedrus deodara*), 56 blue gum (*Eucalyptus globulus*), one olive (*Olea europaea*), three Aleppo pine (*Pinus halepensis*), one longleaf pine (*Pinus palustris*), three plum (*Prunus cerasifera*), four coast live oak, one red willow, and six California bay trees. Two of the blue gum eucalyptus trees surveyed on the project site are not protected, because their DBH is less than 8 inches. Except for big leaf maple, coast live oak, red

willow, and California bay, none of the other tree species in the project site are indigenous to the region. Additionally, seven protected coast live oaks occur on adjacent property within 20 feet of the project site boundary that would be preserved.

Table 4.4-1 Tree Survey Summary							
Common Name	Scientific Name	Diameter in Inches		Total # of Trees	Tree Condition*		
		4 -7.9	8 or more		Poor	Fair	Good
Blackwood acacia	<i>Acacia melanoxylon</i>	--	1	1	--	1	--
Big leaf maple	<i>Acer macrophyllum</i>	--	1	1	1	--	--
Deodar cedar	<i>Cedrus deodara</i>	--	1	1	--	--	1
Blue Gum	<i>Eucalyptus globulus</i>	2	54	56	6	50	--
Olive	<i>Olea europaea</i>	--	1	1	--	--	1
Aleppo pine	<i>Pinus halepensis</i>	--	3	3	--	--	3
Longleaf pine	<i>Pinus palustris</i>	--	1	1	--	1	--
Plum	<i>Prunus cerasifera</i>	1	2	3	3	--	--
Coast live oak	<i>Quercus agrifolia</i>	1	3	4	--	--	4
Red willow	<i>Salix laevigata</i>	1	--	1	--	--	1
California bay	<i>Umbellularia californica</i>	--	6	6	--	--	6
Total		5	73	78	10	52	16
Notes: * The condition of each tree with respect to overall health was recorded according to the following system: • Good – New growth is vigorous as evidenced by stem elongation and color, canopy is dense; • Fair – Tree is developing in a manner typical of others in the area, canopy is full; • Poor – Tree displays some die-back of branches, foliar canopy is sparse, little to no sign of new growth or vigor, possible pathogen infection; Dead – Dead tree							



TREE LOCATIONS

FIGURE 4.4-1

4.4.3 Impact Discussion

- a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?*

Special-status Species

The potential for special-status species to occur on the project site was reviewed by LSA. As discussed in Section 4.4.2.1, the San Francisco dusky-footed woodrat has a high potential to occur on the site. Two species (California red-legged frog, and white-tailed kite) were determined to have a moderate potential to occur on the site, and three species (pallid bat, Alameda striped racer, and golden eagle) were determined to have a low potential to occur on the site. Therefore, the project has the potential to adversely impact several special-status species.

Impact BIO – 1: Construction of the proposed project could result in significant impacts to special-status species. **(Significant Impact)**

Mitigation Measures: Implementation of the following mitigation measures would reduce impacts to special-status species to a less than significant level:

MM BIO – 1.1: A qualified biologist will conduct an environmental education program for all persons employed or otherwise working on the project site before they perform any work. The program shall consist of a presentation from the biologist that includes a discussion of the biology and general behavior of special-status species on or near the site; information about the distribution and habitat needs of the species; sensitivity of the species to human activities; the status of the species pursuant to the Federal Endangered Species Act, the California Endangered Species Act, and the California Fish and Game Code including legal protection; recovery efforts; penalties for violations; and any project-specific protective measures described in this document or any subsequent documents such as an Incidental Take Permit and/or Biological Opinion. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers before their performing work on the site. The biologist shall prepare and distribute wallet-sized cards or a fact sheet handout containing this information for workers to carry on the site. Upon completion of the program, employees shall sign a form stating they attended the program and understand all the protection measures. Copies of the form shall be provided to the City.

MM BIO – 1.2: A qualified biologist will be on the site daily to monitor initial vegetation clearing and ground-disturbing activities. **(Less Than Significant Impact With Mitigation)**

White-Tailed Kite

The white-tailed kite and other bird species could nest in trees and shrubs in and adjacent to the project site. Tree removal, grading, and construction on the site may result in the destruction of nests and/or cause nest abandonment.

Impact BIO – 2: Construction of the proposed project could adversely impact the white-tailed kite or other migratory bird species. **(Significant Impact)**

Mitigation Measures: Implementation of the following mitigation measures would reduce impacts to White-tailed kite and other migratory birds to a less than significant level:

MM BIO – 2.1: Information on white-tailed kites and other protected migratory birds shall be included in the environmental education program, as detailed in Mitigation Measure MM BIO – 1.1.

MM BIO – 2.2: If feasible, construction activities shall occur during the non-breeding season (September 1 - January 31). If such activities are scheduled during the breeding season, a qualified biologist shall conduct a preconstruction nest survey of all trees and shrubs and other suitable nesting habitat in and within 300 feet of the limits of work. The survey shall be conducted not more than five (5) days prior to the start of work. If the survey indicates the potential presence of nesting white-tailed kites or other birds, the biologist shall determine an appropriately sized buffer around the nest and no work will be allowed in this buffer until the young have successfully fledged. The size of the nest buffer will be determined by a qualified biologist in consultation with CDFW and will be based on the nesting species and its sensitivity to disturbance. In general, buffer sizes of up to 300 feet for raptors and 50 feet for other birds would prevent disturbance, but these buffers may be increased or decreased, as appropriate, depending on the bird species and the level of disturbance anticipated near the nest. **(Less Than Significant With Mitigation)**

Pallid Bat

The pallid bat may roost in trees and buildings on the site. All the trees and buildings on the site would be removed to allow development of the property. In the unlikely event pallid bats or other bat species are present on the site, building demolition and tree removal could result in injury or mortality to bats.

Impact BIO – 3: Construction of the proposed project could result in significant impacts to the pallid bat. **(Significant Impact)**

Mitigation Measures: Implementation of the following mitigation measures would reduce impacts to pallid bat to a less than significant level:

MM BIO – 3.1: *Pre-demolition Bat Survey.* A qualified bat biologist shall conduct a bat survey, no more than 14 days prior to the removal of any buildings or structures, to determine if bats are present. No activities that would result in disturbance to an active roost shall proceed prior to completion of the survey. If no active roosts are observed, then no further action shall be warranted. If a maternity roost is present, a qualified biologist shall determine the extent of a construction-free buffer zone around the active nurseries located during the survey. CDFW shall be notified of any active nurseries within the demolition/construction zone. No demolition or construction activities shall occur within the construction-free buffer zone between March 1 and August 31 to avoid construction disturbance to the maternity roost, as determined by the bat biologist. After August 31, roosting bats shall be safely evicted by a qualified bat biologist. A final report documenting the survey effort and any protection measures implemented by the project shall be submitted to the City Planning Department prior to the start of any demolition or grading activity. **(Less Than Significant Impact With Mitigation)**

Dusky-footed Woodrat

The San Francisco dusky-footed woodrat may inhabit the site. Two houses built by woodrats are present within 50 feet of the southern boundary of the site. Construction of the proposed project may result in impacts to San Francisco dusky-footed woodrats.

Impact BIO – 4: Construction of the proposed project may impact San Francisco dusky-footed woodrats on the site. **(Significant Impact)**

Mitigation Measures: Implementation of the following mitigation measures would reduce impacts to San Francisco dusky-footed woodrat to a less than significant level:

MM BIO – 4.1: Information on the San Francisco dusky-footed woodrat shall be included in the environmental education program, as detailed in Mitigation Measure BIO – 1.1.

MM BIO – 4.2: A qualified biologist shall conduct a preconstruction survey for San Francisco dusky-footed woodrat houses within 14 days prior to any tree removal or ground-disturbing activities. Any woodrat houses shall be identified, and their locations mapped and flagged to be avoided during construction activities. No work shall occur within a 20-foot buffer of any woodrat houses. If it is not possible to avoid a woodrat house, a qualified biologist shall develop a relocation plan. The relocation plan shall be submitted to CDFW for approval and then implemented as necessary. Copies of the relocation plan shall be provided to the City. **(Less Than Significant Impact With Mitigation)**

Alameda Striped Racer

The Alameda striped racer (snake) is known to historically occur in the vicinity of the site. Individual Alameda striped racers may travel through the site. Grading and other construction activities may crush or entomb individual Alameda striped racers, resulting in injury or mortality. The project could likely to indirect impacts to the Alameda striped racer, including an increase in the number of non-native predators such as rats and domestic or feral dogs and cats. The project could also attract native and non-native urban-adapted mammalian predators, such as rats, raccoons, and striped skunks. These species are often attracted to urban environments to feed on urban-generated garbage. Alameda striped racers will avoid areas that lie adjacent to urban development due to losses of cover habitats in combination with the increase in native and non-native predator presence.

Project grading and development will permanently impact approximately 8.2 acres³ of potential Alameda striped racer habitat.

Impact BIO – 5: Grading and other construction activities may crush or entomb individual Alameda striped racers resulting in injury or mortality to individual snakes and result in the loss of 8.2 acres of habitat.
(Significant Impact)

Mitigation Measures: Implementation of the following mitigation measures would reduce impacts to Alameda striped racer to a less than significant level:

MM BIO – 5.1: Information on the Alameda striped racer shall be included in the environmental education program, as detailed in Mitigation Measure BIO – 1.1.

MM BIO – 5.2: A qualified biologist shall survey for Alameda striped racer during all initial ground-disturbing activities on the site. If an Alameda striped racer is found, it shall be captured and relocated away from the construction area by a qualified biologist in accordance with an approved relocation plan in compliance with all applicable regulations and guidelines. The biologist shall submit the results of the survey (and capture/relocation plan if applicable) to CDFW and USFWS for review and approval.

MM BIO – 5.3: Unless alternative (equivalent or more effective) measures are recommended by the qualified biologist and approved by the Planning Director, the project applicant shall install a solid fence to deter Alameda striped racers from entering the work site. The snake exclusion fence shall be constructed as follows:

³ The entire site is approximately 8.88 acres. Buildings, a paved driveway, and a dense eucalyptus grove cover approximately 0.68 acres of the site, leaving 8.2 acres of potential habitat.

- Plywood sheets at least three feet in height, above ground. Heavy duty geotextile fabric or other materials approved by USFWS and CDFW may also be used for the snake exclusion fence;
- Buried four (4) to (six) 6 inches into the ground;
- Soil back-filled against the plywood fence to create a solid barrier at the ground;
- Plywood sheets maintained in an upright position with t-posts or stakes;
- Ends of plywood sheets overlapped with no gaps to ensure a complete barrier;
- Escape funnels installed in the fence every 200 linear feet; and
- Work site shall be completely enclosed by the exclusion fence or approved traps shall be installed at the ends of exclusion fence segments to allow capture and relocation of Alameda striped racer away from the construction area by a permitted biologist.
- The location and design of the proposed exclusion fence shall be submitted for review and approval by CDFW, USFWS, and Planning Director and be included on plans for all construction-related permits. If permits obtained through the implementation of Mitigation Measure BIO-5.6 require an alternate design or approach, those requirements will take precedence.

MM BIO – 5.4: The project applicant shall comply with the requirements in the above sections during construction activities. The approved protocol from Mitigation Measure BIO – 5.2 above shall be followed in the event an Alameda striped racer is encountered. The snake exclusion fence from Mitigation Measure BIO – 5.3 shall be installed and remain in place throughout the construction period. All construction activities and equipment/materials/debris storage shall take place on the project side of the exclusion fence.

MM BIO – 5.5: To compensate for permanent impacts to 8.2 acres of degraded, low-quality potential Alameda striped racer habitat, the project applicant shall purchase 8.2 acres of Alameda striped racer credits from a CDFW-approved mitigation or conservation bank(s) or other approved site. Permanent protection and funding for perpetual management of compensatory habitat shall be complete before starting construction.

MM BIO – 5.6: The applicant shall obtain the appropriate permits from USFWS and CDFW agencies or shall obtain concurrence from these agencies that no permits are required prior to initiation of construction activities and implement all conditions stipulated in the permits. **(Less Than Significant Impact With Mitigation)**

California Red-legged Frog

California red-legged frogs are known to breed in ponds within one (1) mile of the site. No potential breeding habitat is located on the site. Although unlikely, individual California red-legged frogs may occasionally disperse through the site. The project, therefore, may cause the potential for harassment, injury, and/or mortality of individual adults and juveniles during construction. This includes the risk of incidental take crushing or entombment of individuals during grading. The project will result in permanent alteration of 8.2 acres of degraded but potentially occupied upland habitat. Implementation of the perimeter wildlife exclusion fencing as described in Mitigation Measure BIO – 5.3 would, in part, reduce the potential for dispersing frogs to move into the site.

Impact BIO – 6: Construction of the proposed project could cause injury and/or mortality of California red-legged frogs and result in the permanent loss of habitat. **(Significant Impact)**

Mitigation Measures: Implementation of the following mitigation measures would reduce impacts to California red-legged frogs to a less than significant level:

MM BIO – 6.1: Information on the California red-legged frog shall be included in the environmental education program, as detailed in Mitigation Measure BIO – 1.1.

MM BIO – 6.2: No more than 24 hours prior to the date of initial ground disturbance, a preconstruction survey for the California red-legged frog shall be conducted by a USFWS-approved biologist at the project site. The survey shall consist of walking the project limits and within the project site to ascertain the possible presence of the species. The USFWS-approved biologist shall investigate all potential areas that could be used by the California red-legged frog for feeding, breeding, sheltering, movement, and other essential behaviors. This includes an adequate examination of mammal burrows. If any California red-legged frogs are found, the USFWS-approved biologist shall contact the USFWS to determine if moving any of the individuals is appropriate. In making this determination the USFWS will consider if an appropriate relocation site exists. If the USFWS approves moving animals, the applicant shall ensure that the USFWS-approved biologist is given sufficient time to move the animals from the work site before ground disturbance is initiated. Only USFWS-approved biologists shall capture, handle, and monitor the California red-legged frog.

MM BIO – 6.3: To the extent practicable, initial ground-disturbing activities will be avoided between November 1 and March 31, when California red-legged frogs are most likely to be moving through upland areas. When ground-disturbing activities must take place between

November 1 and March 31, the applicant shall ensure that daily monitoring by the USFWS-approved biologist is completed for the California red-legged frog.

MM BIO- 6.4: The applicant shall obtain the appropriate permit from USFWS and implement all conditions stipulated in the permit or shall obtain concurrence that no permit is required prior to initiation of construction activities.

MM BIO – 6.5: To compensate for permanent impacts to 8.2 acres of degraded, low-quality potential California red-legged frog upland habitat, the project applicant shall purchase 8.2 acres of California red-legged frog credits from a USFWS-approved mitigation or conservation bank(s). Permanent protection and funding for perpetual management of compensatory habitat shall be complete before starting construction. If a permit issued by the USFWS has differing requirements, those requirements shall take precedence.

Implementation of these mitigation measures would reduce impacts to special-status plants and animals and breeding birds to a less than significant level. **(Less Than Significant With Mitigation)**

- b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?*

The project would not adversely affect any riparian habitat, which is absent from the site. The ephemeral swale on the northern side of the property conveys stormwater but does not support any aquatic wildlife. This drainage only carries water intermittently, is lined with plastic sheeting, and does not support typical riparian plant species such as cattails and cottonwood trees. This ephemeral swale conveys stormwater from the adjacent Stonebrae development. A riparian corridor associated with an ephemeral stream located outside of the project area to the south shall not be directly or indirectly impacted by the project.

The CDFW tracks the occurrences of natural plant communities that are of limited distribution Statewide or within a county or region. Many special-status natural communities support special-status plants and animals and are addressed separately as habitat for those species. Northern coastal salt marsh (a baylands habitat) is the only special-status natural community that the CNDDDB lists within five (5) miles of the site. Northern coastal salt marsh is not present at the project site and will not be affected by the project. **(No Impact)**

- c) *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

There are no vegetated wetlands in the project site. There is one potentially jurisdictional feature on the project site that the Army Corps of Engineers (Corps) conducted a preliminary

jurisdictional determination and stated in a letter dated October 26, 2017 that one feature on the site may be subject to the Corps regulatory authority. The feature is an ephemeral swale that measures approximately 280 feet long and averages one (1) foot in width located on the northern portion of the project site. The project, due to grading of the site, would affect all approximately 280 linear feet of this ephemeral swale.

Impact BIO – 7: The construction of the proposed project would impact a potentially jurisdictional waterway as defined by the Corps. **(Significant Impact)**

Mitigation Measures: Implementation of the following mitigation measure would reduce impacts to jurisdictional waters to a less than significant level:

MM BIO – 7.1: The project will compensate for impacts to all areas delineated as jurisdictional on the site. The impacted feature shall be mitigated at a 1:1 ratio consistent with the Corps “no net loss” policy. The project applicant will obtain the necessary permits from the Corps, Regional Water Quality Control Board, and CDFW for any fill of jurisdictional areas. All terms of the permits shall be implemented as a condition of the project.

With the implementation of Mitigation Measure BIO – 7.1, impacts to jurisdictional waters would be reduced to a less than significant level. **(Less Than Significant With Mitigation)**

d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites?*

The project would not affect any fish. The project would affect the movement of common native resident wildlife species and a grazed open space area that is mostly surrounded by residential development and a school. Two black-tailed deer (*Odocoileus hemionus*) (a doe and a fawn) were seen on the project site on June 1, 2016, and numerous deer trails cross the property. Existing paved roads, residential housing, and tall fences surrounding the school sports fields already obstruct wildlife movements to some degree. Although the development would permanently block existing deer trails, deer are a common, non-special-status species and are able to persist in altered suburban landscapes and nearby Garin Regional Park provides substantial habitat; therefore, the proposed project would not impact this species.

Several species of native birds are expected to nest in the trees, shrubs, and grasslands in and adjacent to the project site. Native birds may also nest on manmade structures on the property. The nests of most native birds are protected under the federal Migratory Bird Treaty Act and Section 3503 of the California Fish and Game Code. If conducted during the nesting season (February 1 to August 31), proposed tree removal, demolition, and grading activities could directly impact nesting birds by removing vegetation or structures that support active nests. Implementation of Mitigation Measures BIO-2.1 and BIO-2.2 above would avoid or reduce impacts to nesting birds to a less than significant level. **(Less Than Significant With Mitigation)**

- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

A tree survey and appraisal was completed for the project site by LSA in June 2016 and re-evaluated in April 2018 (refer to Appendix B). Of the 78 trees on the site, 76 are protected under the City of Hayward Tree Preservation Ordinance. An additional off-site tree would be removed which is located north of Lot 3 on the proposed site plan and east of the proposed sewer line that would connect to an existing sewer line in Country Club Drive.

The City of Hayward protects trees that have a minimum trunk diameter of eight inches or more (measured 54 inches above the ground), street trees, memorial trees, trees that were planted as replacements for protected trees, and trees of certain species.⁴ Based on the development envelope including extensive proposed grading for the project, all on-site trees including 76 protected trees and an additional off-site tree would be removed by the proposed development.

The project would be required to comply with the Tree Preservation Ordinance, which includes submittal of an application for a Protected Tree Removal or Cutting permit. The ordinance also requires replacement of removed or disfigured trees with like-size, like-kind trees or an equal value tree or trees as determined by the City's Landscape Architect. The replacement trees shall be located on site wherever possible. Where there is not enough room on-site for the replacement trees in the judgment of the City Landscape Architect or his or her designated representative, another site may be designated that is mutually agreeable. The Ordinance also includes protection measures for trees that would be retained to ensure they are not impacted during construction activities.

Impact BIO – 8: Development of the proposed project would result in significant impacts to on-site protected trees and one off-site tree. **(Significant Impact)**

Mitigation Measures: Implementation of the following mitigation measures would reduce impacts to protected trees to a less than significant level.

MM BIO – 8.1: All applicable requirements shall be followed and all permits obtained as required by the City's Tree Ordinance (HMC Chapter 10, Article 15). Per that ordinance, every effort shall be made to preserve the character of the area and the more valuable tree specimens on site to the greatest extent practicable. Final landscape plans shall be reviewed and approved by the City of Hayward Landscape Architect prior to issuance of any grading, trenching, encroachment, demolition, or building permit for development. Final landscape plans shall clearly identify all "protected trees," as defined in the Tree Preservation Ordinance, and all trees to be removed from the project

⁴ The following tree species with a trunk diameter of four inches or more are protected under the City of Hayward Tree Preservation Ordinance: Big Leaf Maple, California Buckeye, Madrone, Western Dogwood, California Sycamore, Coast Live Oak, Canyon Live Oak, Blue Oak, Oregon White Oak, California Black Oak, Valley Oak, Interior Live Oak, and California Bay.

site and the size, location, type, value of trees and specify the species of all replacement trees.

MM BIO – 8.2:

The project applicant shall implement all tree protection measures recommended in the Arborist Report prepared for the project, which include the following:

- *Tree Avoidance.* The project plan shall avoid protected trees adjacent to the project site. The project plan shall incorporate placement of Tree Protection Fencing (TPF) outside the drip line of the off-site protected trees. The location of the TPF shall be shown on the project plans.
- *Excavation.* Within the dripline of retained trees, digging should be done with low impact machinery and hand tools. If the roots of retained trees become exposed during construction and need to be removed to allow construction to proceed, these roots must be cut cleanly with a sharp saw blade. Tree roots shall not be pulled or torn.
- *Tree Protection Fencing.* Prior to the start of construction, TPF shall be installed at the drip line of protected trees to be retained. The TPF should be maintained during the construction process to prevent direct damage to trees and their growing environment. The TPF should consist of high density polyethylene fencing with 3.5 inch by 1.5-inch openings (orange warning barrier fence) supported by metal “T-post” fence posts.
- *Use of Heavy Equipment.* Heavy machinery should not be staged or operated within the drip line of retained trees.
- *Incidental Damage to Retained Trees.* The attachment of wires, signs, and ropes to any retained tree should be prohibited. Injury to trees must be avoided.
- *Trimming.* The pruning of retained trees shall comply with the guidelines established by the International Society of Arboriculture; BMP; tree pruning and any special conditions as determined by a certified arborist.

By complying with the City’s Tree Preservation Ordinance for replacement of on-site trees and implementing tree protection measures for off-site trees, the project would not conflict with any local policies or ordinances protecting biological resources. **(Less Than Significant With Mitigation)**

- f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

There are no habitat conservation plans affecting the property, specifically, the project site is not located in an area covered by an adopted Habitat Conservation Plan or Natural Community Conservation Plan. **(No Impact)**

4.4.4 Conclusion

The proposed project, with the implementation of MM BIO – 1.1 through MM BIO – 8.2, would have a less than significant impact on biological resources. **(Less Than Significant Impact With Mitigation)**

4.5 CULTURAL RESOURCES

This discussion is based on a Cultural Resources Assessment prepared by *Basin Research Associates, Inc.* in July 2016. A copy of this report is on file at the City of Hayward Planning Department.

4.5.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines Section 15064.5?	☐	☐	☒	☐	1,11
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5?	☐	☒	☐	☐	1,11
c) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?	☐	☒	☐	☐	1,11
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	1
e) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or	☐	☒	☐	☐	1,11
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying this criteria, the significance of the resource to a California Native American tribe shall be considered.	☐	☒	☐	☐	1,11

4.5.2 Setting

Cultural resources are evidence of past human occupation and activity and include both historical and archaeological resources. These resources may be located above ground or underground and have significance in the history, prehistory, architecture, or culture of the nation, State of California, or local or tribal communities.

Paleontological resources are fossils, the remains or traces of prehistoric life preserved in the geologic record. They range from the well-known and well publicized (such as mammoth and dinosaur bones) to scientifically important fossils.

4.5.2.1 *Prehistoric Context and Resources*

The proposed project is located on Walpert Ridge in the City of Hayward within the Stonebrae Country Club master planned residential area. Native American occupation of the area extended over 5,000 to 7,000 years and possibly longer. Springs and water courses were often a focus of prehistoric occupation in central California with Native American groups exploiting a variety of ecological resources associated with flowing and seasonal water. The project site is located within the vicinity of several creeks and their intermittent tributaries. The various sources of water would have provided a favorable environment during the prehistoric period with riparian and inland resources readily available and the bayshore in relatively close proximity.

Native American site types in the general Hayward area consist of habitation sites (e.g., villages and long-term camps including burials, temporary camps), non-habitation sites (e.g., workshops, hunting and butchering sites, etc.), bedrock mortars or other milling feature sites, rock art sites (e.g., petroglyph and pictographs), quarries, burial sites (including isolated burials), and trails.

The aboriginal inhabitants of southern Alameda County belonged to a Native American group known as the “Costanoan,” derived from the Spanish word *Costanos* (“coast people” or “coastal dwellers”) who occupied the central California coast as far east as the Diablo Range. The descendants of these Native Americans now prefer to be called Ohlone.

The project area is within the territory of the Chochenyo tribelet of the Ohlone. Historic accounts of the distribution of the tribelets and villages in the 1770s-1790s suggest that the Native Americans may have had a major village site along San Lorenzo Creek approximately four miles to the west as well as temporary camps in its vicinity. A major aboriginal trail passed through the City of Hayward, but no known Native American villages or trails have been identified in, adjacent or near the proposed project site.

Archaeological Records

The project site is not listed on the National Register of Historic Places, the California Inventory of Historic Resources, or the Office of Historic Preservation’s Directory of Properties in the Historic Property data file for Alameda County. In July 2016, a record search for prior archaeological studies was conducted at the Northwest Information Center, California Historical Resources Information System, at Sonoma State University. The records search noted no recorded archaeological resource sites within or adjacent to the project site.

The project site is located within an area designated as containing moderate sensitivity for archaeological resources. This determination was based on a review of recorded archaeological resources in Alameda County in the 1970's and has not been updated. In addition, sensitivity was also based on the presence of several flowing water sources and the number of archaeological sites recorded in the general Walpert Ridge area. Two archaeological resources were recorded within 0.25 miles of the project site.

Assembly Bill (AB) 52

Assembly Bill (AB) 52 was approved by the Governor September 25, 2014. It adds a new category of resources to CEQA that must be considered during project planning – Tribal Cultural Resources. It also establishes a framework and timeline for consultation. AB 52 applies to projects that have a notice of preparation or a notice of negative declaration or mitigated negative declaration filed on or after July 1, 2015.

AB 52 requires lead agencies to conduct formal consultations with California Native American tribes during the CEQA process to identify tribal cultural resources that may be subject to significant impacts by a project. Where a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document must discuss the impact and whether feasible alternatives or mitigation measures could avoid or substantially lessen the impact.

This consultation requirement applies only if the tribes have sent written requests for notification of projects to the lead agency. At the time of preparation of this Initial Study, the City of Hayward received request for consultation by the Ione Band of Miwok Indians.

4.5.2.2 *Historic Resources*

The period of initial historic exploration of the project area started in 1769. Between 1769 and 1776, several Spanish expeditions went through Ohlone territory, including those led by Portola, Fages, Fages and Crespi, Anza, Rivera, and Moraga. Even though the routes of the early explorers cannot be determined with total accuracy, a number are known to have traveled near the project area. San Lorenzo Creek was viewed by Father Juan Crespi during the Pedro Fages expedition in 1772 and later in 1775/1776 by Father Pedro Font of the Juan Bautista de Anza expedition. The 1776 Juan Bautista de Anza National Historic Trail places the historic route along the foothills and would have proceeded through present-day Hayward.

Hispanic Era

During the Spanish Period, the project was within the lands of Mission San Jose, established in 1797, the 14th of the 21 missions founded in California. This mission, located in the southeast area of present-day Fremont had jurisdiction over southern Alameda County. As one of seven missions in Ohlone territory, Mission San Jose had the greatest impact on the aboriginal population living in the project area. Settlement was concentrated around the Vallejo Mills (present day Niles in the City of Fremont) as well as Mission San Jose.

American Era

In the mid-19th century, most of the rancho and pueblo lands in California were subdivided as the result of population growth and the American takeover. The initial explosion in population was associated with the Gold Rush (1848), followed later by the construction of the transcontinental railroad (1869). The growth of the general project area was dependent on transportation— first by water and roads and later, by rail and then by air.

The modern City of Hayward had its origins in the 1850s, during the Gold Rush, when squatters and settlers began to appear in the area. The City lay within the boundaries of *Rancho San Lorenzo*, a 17,000-acre estate granted in 1821 to the Mexican colonist Guillermo Castro. William Hayward occupied a tent in 1851 in Palomares Canyon. In 1854, Castro had a map surveyed for a town covering 28 blocks in the vicinity of his adobe and began selling land to settlers.

4.5.2.3 *Paleontological Resources*

As noted above, paleontological resources are the fossilized remains of organisms from prehistoric environments ground in geologic strata. Most of the city of Hayward is located on Quaternary sedimentary deposits which are from the most recent geologic periods (i.e., Holocene, Pleistocene) dating back to 1.6 million years ago. Some of eastern Hayward is located on Mesozoic sedimentary rocks from the Mesozoic period dating back to 245 million years ago, when dinosaurs roamed the earth. Both types of geologic rocks may contain fossils of flora and fauna, particularly marine species.

According to the General Plan Background Report, five paleontological resources have previously been discovered in the City of Hayward, including four mammalian fossils (e.g., bison, prehistoric horse) and one gastropod fossil (i.e., marine snail) from the Quaternary period. The Bison fossil was discovered near Interstate 880 (I-880), the two prehistoric horse fossils were discovered in the Hayward gravel pit, the marine snail was discovered at Hayward Landing, and an additional unidentified mammalian fossil was discovered near the Hayward Motel.⁵

4.5.3 Impact Discussion

a) *Cause a substantial adverse change in the significance of an historical resource?*

The existing residential structure, built circa 1930, is located on the eastern portion of the project site would be demolished by the proposed project. According to a Cultural Resources Assessment completed by *Basin Research Associates* in July 2016, the historic integrity of the house has been compromised because of extensive modern alterations. The existing residence is not an exceptional or distinguished example of a farm or ranch house from the 1930's to 1940's in the Hayward area nor does it appear to have significant associations with important persons, local themes or cultural patterns of significance. The existing residence would not meet any of the criteria for listing as a historic resource on local, State, or Federal registers, nor are any surrounding properties listed or eligible for listing as historic resources as the surrounding development is all recent modern construction. The project, therefore,

⁵ General Plan Background Report. 2014.

would not result in an impact to an historic resource, either on or off-site. **(Less Than Significant Impact)**

- b – d) *Cause a substantial adverse change in the significance of an archaeological resource? Would the project disturb any human remains, including those interred outside of formal cemeteries? Would the project directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?*

An Archaeological Literature Review was completed for the site as part of the Cultural Resources Assessment. No recorded archaeological sites are located on the project site. During excavation and grading activities associated with construction of the project, a remote possibility exists that buried archaeological resources may be discovered. If that should occur, standard measures would be taken to stop all work adjacent to the find, an archaeologist would be brought on site to investigate the find and contact the City of Hayward Development Services Department to determine how to preserve and record the uncovered materials.

Impact CUL-1: Construction of the proposed project could result in significant impacts to unknown archaeological resources, unique paleontological resources/sites, unique geologic features, or human remains, if present on-site. **(Significant Impact)**

Mitigation Measure: Implementation of the following mitigation measures would ensure that potential impacts to buried cultural resources remain at a less than significant level.

MM CUL – 1.1: *Unique Paleontological and/or Geologic Features and Reporting.* Should a unique paleontological resource or site or unique geological feature be identified at the project site during any phase of construction, all ground disturbing activities within 25 feet shall cease and the City’s Development Services Director notified immediately. A qualified paleontologist shall evaluate the find and prescribe mitigation measures to reduce impacts to a less than significant level. Work may proceed on other parts of the project site while mitigation for paleontological resources or geologic features is implemented. Upon completion of the paleontological assessment, a report shall be submitted to the City and, if paleontological materials are recovered, a paleontological repository, such as the University of California Museum of Paleontology.

MM CUL – 1.2: *Undiscovered Archaeological Resources.* If evidence of an archaeological site or other suspected cultural resource as defined by CEQA Guideline Section 15064.5, including darkened soil representing past human activity (“midden”), that could conceal material remains (e.g., worked stone, worked bone, fired clay vessels, faunal bone, hearths, storage pits, or burials) is discovered during construction related earth-moving activities, all ground-disturbing activity within 100 feet of the resources shall be halted and the City’s

Development Services Director shall be notified. The project sponsor shall hire a qualified archaeologist to conduct a field investigation. The City's Development Services Director shall consult with the archaeologist to assess the significance of the find. Impacts to any significant resources shall be mitigated to a less-than-significant level through data recovery or other methods determined adequate by a qualified archaeologist and that are consistent with the Secretary of the Interior's Standards for Archaeological documentation. Any identified cultural resources shall be recorded on the appropriate DPR 523 (A-J) form and filed with the NWIC.

MM CUL – 1.3: *Report of Archaeological Resources.* If archaeological resources are identified, a final report summarizing the discovery of cultural materials shall be submitted to the City's Development Services Director prior to issuance of building permits. This report shall contain a description of the mitigation program that was implemented and its results, including a description of the monitoring and testing program, a list of the resources found and conclusion, and a description of the disposition/curation of the resources.

MM CUL – 1.4: *Human Remains.* If human remains are discovered at any project construction site during any phase of construction, all ground-disturbing activity within 100 feet of the resources shall be halted and the City's Development Services Director and the Alameda County Coroner shall be notified immediately, according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The project sponsor shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the Most Likely Descendant, including the excavation and removal of the human remains. The City of Hayward shall be responsible for approval of recommended mitigation as it deems appropriate, taking account of the provisions of State law, as set forth in CEQA Guidelines section 15064.5(e) and Public Resources Code section 5097.98. The project sponsor shall implement approved mitigation, to be verified by the City of Hayward, before the resumption of ground-disturbing activities within 100 feet of where the remains were discovered.

With the implementation of the above mitigation measures, impacts to buried cultural resources would be less than significant. **(Less Than Significant Impact With Mitigation)**

- e) *Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: (1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or (2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.*

As noted above, the City of Hayward received a formal request in March 2016 from the Ione Band of Miwok Indians for notification of future projects to allow for the opportunity to request tribal consultation on individual projects. Notification of the project pursuant to AB52 was provided by the City of Hayward for a 30-day review period from August 27, 2018 to September 27, 2018, during which time the Ione Band of Miwok Indians could request consultation. The tribe did not request consultation.

No known tribal cultural resources are located at the project site. However, in the event an accidental discovery of tribal cultural resources occurs during construction, mitigation measures CUL – 1.1 to CUL – 1.4 would be implemented. For these reasons, the project would result in a less than significant impact to tribal cultural resources. **(Less Than Significant Impact With Mitigation)**

4.5.4 Conclusion

Construction of the proposed development, with the implementation of mitigation measure CUL – 1.1 to CUL – 1.4, would not result in a significant impact to buried cultural resources or tribal cultural resources. **(Less Than Significant Impact With Mitigation)**

The project would not result in a significant impact to historic resources. **(Less Than Significant Impact)**

4.6 GEOLOGY AND SOILS

The following discussion is based on a Geotechnical Exploration prepared by *ENGEO, Inc.* in March 2017 and updated in April 2018. A copy of this report is included as Appendix C of this Initial Study.

4.6.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
1. Rupture of a known earthquake fault, as described on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42)?	☐	☐	☒	☐	1,2,12
2. Strong seismic ground shaking?	☐	☐	☒	☐	1,2,12
3. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐	1,2,12
4. Landslides?	☐	☐	☒	☐	1,2,12
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐	1,2,12
c) Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐	1,2,12
d) Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?	☐	☒	☐	☐	1,2,12
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒	1,2,12

4.6.2 Existing Setting

4.6.2.1 Regional Geology

The City of Hayward is located within the Coast Ranges geologic province of California, which is dominated by a series of northwest-trending ridges and valleys. Bedrock in the province has been

folded and faulted during regional uplift beginning in the Pliocene, roughly four million years before present. Regional geologic mapping indicates that the site is underlain by an unnamed sandstone, conglomerate, and shale formation of the late Cretaceous period.

4.6.2.2 *On-Site Geologic Conditions*

Soils and Groundwater

The project site ranges in elevation from 1,150 to 1,260 feet above mean sea level (msl). Colluvial soils are present on the site and consist of dark brown, olive, and yellowish-brown silty clay that have a low to medium plasticity and low to medium expansion potential. The colluvial deposits encountered during the geotechnical investigation were stiff to very stiff and ranged from approximately one to 18 feet thick.

The sandstone on-site includes pebble to cobble conglomerate, sandstone, siltstone, and shale. Bedrock in the northern portion of the site was extremely weak and weathered completely. Bedrock in the southern portion of the site tended to be medium strong with less weathering.

Groundwater was not encountered during the geotechnical investigation. Fluctuations in groundwater levels may occur seasonally and over a period of years due to variations in precipitation, temperature, irrigation, and other factors.

Expansive Soils

Expansive soils are susceptible to shrink and swell resulting from variations in moisture content. Expansive soils and bedrock may cause heaving and cracking of slabs-on-grade, pavements and foundations.

The expansive nature of the near-surface native soils is of geotechnical concern in this region. The clayey soil at the site is considered moderately expansive. Conversely, the sandstone and siltstone bedrock at the site is considered low to non-expansive.

Seismicity and Seismic Hazards

The San Francisco Bay Area is one of the most seismically active regions in the United States. The significant earthquakes that occur in the Bay Area are generally associated with the crustal movements along well-defined active fault zones of the San Andreas Fault system, which regionally trend in the northwesterly direction.

The site is not located within a designated Alquist-Priolo Earthquake Fault Zone of a City of Hayward Fault Hazard Zone. Nearby active or potentially active faults include the Hayward Fault located approximately 3.7 miles west of the project site, the Calaveras Fault located approximately 5.6 miles east of the project site, and the San Andreas Fault is located approximately 22.5 miles west of the project site. The Niles Fault is located immediately west of the property but is not known to be active. Because of the proximity to the site to the nearby active or potentially active faults, ground shaking, ground failure, or liquefaction due to an earthquake could cause damage to structures.

Liquefaction

Liquefaction is the result of seismic activity and is characterized as the transformation of loosely water-saturated soils from a solid state to a liquid state after ground shaking. There are many variables that contribute to liquefaction, including the age of the soil, soil type, soil cohesion, soil density, and groundwater level.

The project site contains fine grain soil with low to medium plasticity. Since the project site is not located in a Seismic Hazard Zone and no groundwater was observed during the geotechnical investigation, the potential for liquefaction triggering is considered low.

Seismically-Induced Differential Settlements

If near-surface soils vary in composition both vertically and laterally, strong earthquake shaking can cause non-uniform densification of loose to medium dense cohesionless soil layers. This results in movement of the near surface soils. Loose cohesionless soils were not encountered during the subsurface investigation on the site, therefore, there is a low probability of significant settlement of non-saturated sand layers on the site.

Lateral Spreading

Lateral spreading typically occurs as a form of horizontal displacement of relatively flat-lying alluvial material toward an open or “free” face such as an open body of water, channel, or excavation. In soils, this movement is generally due to failure along a weak plane and may often be associated with liquefaction.

There is potential for lateral spreading on-site due to the loose colluvium soil and the presence of open-face drainage features including a 280-foot-long artificial roadside ditch, a 280-foot-long swale, and a 50-foot-long gully.

Landslides

The site is not located within an area zoned by the State of California as having potential for seismically induced landslide hazards nor is it located within an Alameda County Hazard Zone. For these reasons, the probability of landsliding occurring at the site during a seismic event is low.

4.6.3 Impact Discussion

- a, c) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i) rupture of a known earthquake fault, ii) strong seismic ground shaking, iii) seismic-related ground failure, or iv) landslides? Would the project be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

Seismic Shaking, Liquefaction, and Lateral Spreading

While the likelihood of fault rupture at the project site is extremely low, the project site is located in a seismically active region and strong ground shaking would likely occur at the project site during seismic activity throughout the life of the project. The Niles Fault is

located immediately west of the property but is not known to be active and would therefore not cause adverse effects to the project site.

The project would conform to the standard engineering and building practices and techniques specified in the 2016 California Building Code (CBC). The proposed buildings would be designed and constructed in accordance with the recommendations of a geotechnical report prepared for the site (refer to Appendix C), which identifies the specific design features related to geologic and seismic conditions. The buildings would meet the requirements of appropriate Building and Fire Codes, as adopted by the City of Hayward.

Loose soils on the surface of the slopes would be removed as a part of the grading operations. Engineered fill would replace the loose soils and extend to bedrock. Therefore, the grading measures would minimize the potential for lateral spreading to occur during a seismic event.

The project, in conformance to applicable regulations and with the implementation of the recommendations in the geotechnical report, would not result in significant impacts from seismicity and seismic-related hazards including ground shaking, liquefaction, and lateral spreading. **(Less Than Significant Impact)**

Landslides

As with most of the surrounding hillside developments, landslides and slope stability are important issues for the project. According to the preliminary geotechnical investigation, slopes on-site are not shown on the State of California Seismic Hazard Zones Map as areas that may be susceptible to seismically induced landsliding. Although seismically induced landsliding can be a significant hazard, it can generally be mitigated through proper grading procedures. Therefore, as conditioned by the project upon project approval, the project would remove loose colluvial soils present on-site and rebuild slopes with engineered fill keyed into bedrock to prevent landslides from occurring on-site.

Additionally, as required by mitigation measure MM GEO-1 mentioned below, a final design level geotechnical investigation shall identify requirement for the placement of fill on the project site and building foundations. **(Less Than Significant Impact)**

- b, d) Result in substantial soil erosion or the loss of topsoil? Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?*

Soil Impacts

The tops of fill or cut slopes should be graded in such a way as to prevent water from flowing freely down the slopes. Due to the nature of the site soil and bedrock, graded slopes may experience severe erosion when grading is halted by heavy rain. Therefore, before work is stopped, a positive gradient away from the tops of slopes should be provided to carry the surface runoff away from the slopes to areas where erosion can be controlled. It is vital that

no completed slope be left standing through a winter season without erosion control measures having been provided.

Because the existing bedrock is relatively nutrient-poor, it may be difficult for vegetation to become properly established, resulting in a potential for slope erosion. Revegetation of graded slopes can be aided by retaining the organic-rich strippings and spreading these materials in a thin layer (approximately 6 inches thick) on the graded slopes prior to the winter rains and following rough grading. All landscaped slopes should be maintained in a vegetated state after project completion. The use of drought-tolerant vegetation requiring infrequent drip irrigation during summer is recommended. No pressurized irrigation lines should be placed on or near the tops of graded slopes.

Soils on the site are moderately expansive, which could damage the proposed residential foundations and structures. Also, based on the proposed thickness of fill over natural slopes, differential settlement may occur due to the transition between cut and fill zones.

Impact GEO – 1: The project during construction would result in soil erosion, and buildings and pavement constructed as part of the project could be subject to soil hazards related to expansive soils and differential settlement. **(Significant Impact)**

Mitigation Measures: In conformance with standard practices in the City of Hayward, the proposed project shall implement the following measure to reduce adverse effects associated with soil conditions.

MM GEO – 1.1: Buildings shall be designed and constructed in accordance with a final design-level geotechnical investigation to be completed for the project by a qualified professional and submitted to the Department of Community and Economic Development. The final design-level geotechnical investigation shall identify requirement for the placement of fill on the project site and building foundations.

MM GEO – 1.2: The civil engineer and the project landscape contractor shall implement a comprehensive erosion control plan to account for seasonal rainfall during and following construction. The project engineering geologist shall make periodic inspections of the site drainage and erosion control features for a period of two years.

With the implementation of MM GEO – 1.1 and MM GEO – 1.2, geologic impacts would be reduced to a less than significant level. **(Less Than Significant With Mitigation)**

e) *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

The project would connect to the municipal wastewater conveyance and treatment system and does not propose the use of septic tanks or alternative wastewater disposal systems. Therefore, there would be no impact. **(No Impact)**

4.6.4 Conclusion

With the implementation of mitigation measures MM GEO – 1.1 and MM GEO – 1.2, the proposed project would not result in significant geology and soil impacts. **(Less Than Significant With Mitigation)**

4.7 GREENHOUSE GAS EMISSIONS

4.7.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐	1,2
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐	1,2

4.7.1.1 *Background*

Unlike emissions of criteria and toxic air pollutants, which are discussed in *Section 4.3 Air Quality* and have local or regional impacts, emissions of Greenhouse Gases (GHGs) have a broader, global impact. Global warming associated with the “greenhouse effect” is a process whereby GHGs accumulating in the atmosphere contribute to an increase in the temperature of the earth’s atmosphere over time. The principal GHGs contributing to global warming and associated climate change are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated compounds. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural sectors.

The San Francisco Bay Area Air Basin (SFBAAB) is currently designated as a nonattainment area for state and national ozone standards and national particulate matter ambient air quality standards. SFBAAB’s nonattainment status is attributed to the region’s development history. Past, present and future development projects contribute to the region’s adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project’s individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project’s contribution to the cumulative impact is considerable, then the project’s impact on air quality would be considered significant. The Bay Area Air Quality Management District’s (BAAQMD) approach to developing a Threshold of Significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation (AB 32 Global Warming Solutions Act) adopted to reduce statewide 2020 GHG emissions to 1990 levels, progress needed to move us towards climate stabilization. If a project would generate GHG emissions above the threshold level, it would be considered to contribute substantially to a cumulative impact and would be considered significant. Senate Bill 32 was passed in 2016 to establish a goal of 2030 statewide that are 40% below 1990 levels.

The Thresholds of Significance for operational-related GHG emissions in 2020 are:

- For land use development projects, the threshold is compliance with a qualified GHG Reduction Strategy; or annual emissions less than 1,100 metric tons per year (MT/yr) of CO₂e; or 4.6 MT CO₂e/SP/yr (residents + employees). Land use development projects include residential, commercial, industrial, and public land uses and facilities.
- For stationary-source projects, the threshold is 10,000 metric tons per year (MT/yr) of CO₂e. Stationary source projects include land uses that would accommodate processes and equipment that emit GHG emissions and would require an Air District permit to operate. If annual emissions of operational-related GHGs exceed these levels, the proposed project would result in a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact to global climate change.

The BAAQMD has established project level screening criteria to assist in the evaluation of impacts. If a project meets the screening criteria and is consistent with the methodology used to develop the screening criteria, then the project's air quality impacts may be considered less than significant. For single-family residences, the BAAQMD *CEQA Air Quality Guidelines* set a screening threshold of 56 dwelling units for the year 2020.

BAAQMD adopted revised CEQA Air Quality Guidelines on June 2, 2010 and then adopted a modified version of the Guidelines in May 2017. The BAAQMD CEQA Air Quality Guidelines include thresholds of significance for GHG emissions. Pursuant to the latest CEQA Air Quality Guidelines, a local government may prepare a Qualified Greenhouse Gas Reduction Strategy that is consistent with AB 32 goals. If a project is consistent with an adopted Qualified Greenhouse Gas Reduction Strategy, it can be presumed that the project will not have significant GHG emissions under CEQA.^[1] BAAQMD also developed a quantitative threshold for project- and plan-level analyses based on estimated GHG emissions, as well as per service population metrics.

The BAAQMD GHG recommendations include a specific plan-and project-level GHG emission 'bright-line' threshold for 2020 emissions of 1,100 MT CO₂e/year to achieve the 2020 AB 32 statewide targets. Given the project may not be constructed and operational prior to 2020, GHG emissions resulting from operation of the projects at maximum build out have also been compared to a 2030 bright-line threshold consistent with State goals detailed in SB 32, EO B-30-15, and EO S-3-05 to reduce GHG emissions by 40 percent below 1990 levels by 2030. Though BAAQMD has not published a quantified threshold for 2030 yet, this Initial Study's assessment uses a "Substantial Progress" bright-line threshold of 660 MT CO₂e/year (or a 40 percent reduction of the 2020 1,100 MT CO₂e/year threshold).

4.7.1.2 *Existing Development*

The project site is currently developed with a single-family residence. Single-family residential development typically results in greenhouse gas (GHG) emissions due to vehicle use, building heating and cooling, water use, and property maintenance activities.

^[1] Bay Area Air Quality Management District, 2017. *CEQA Air Quality Guidelines*. May.

4.7.2 Impact Discussion

- a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

The project proposes 19 single-family residences and is below the 56 single-family residences screening level (i.e. the minimum residential project expected to emit 1,100 MT CO₂e/year), as specified in BAAQMD's CEQA Air Quality Guidelines for 2020. As described above in *Section 4.7.1.1 Background*, if the project is constructed post-2020, the threshold of 660 MT CO₂e/year (or 40 percent below the 2020 emissions) would also be met given that the 19-unit project is well below the screening level and would emit less than 660 MT CO₂e/year.

Construction of the project will generate GHG emissions during demolition, site preparation and grading, installation of project roadways and utilities, and construction of the 19 single family homes. Neither BAAQMD nor the City of Hayward have established quantitative thresholds for construction emissions. Therefore, it is not anticipated that the project will create significant operational or construction GHG emissions. **(Less Than Significant Impact)**

- b) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

As described above, the project would not result in GHG emissions above thresholds that were established by BAAQMD to identify projects that require additional mitigation measures to achieve statewide GHG targets contained in Assembly Bill (AB) 32.

The project is within a suburban area near schools and would be constructed in accordance with CALGreen (Part 11 of Title 24 of the California Code of Regulations) requirements for Residential Development. The site is not within a Priority Development Area as designated in Plan Bay Area, a regional Sustainable Community Strategy pursuant to SB 375 designed to reduce greenhouse gas emissions through land use planning and the provision of adequate housing to meet regional needs.

Hayward's Climate Action Plan (CAP) was adopted by the City Council on July 28, 2009. The purpose of the CAP is to make Hayward a more environmentally and socially sustainable community by:

- Reducing Greenhouse Gas emissions - the primary contributor to global warming;
- Decreasing the community's dependence on non-renewable resources;
- Increasing Hayward's potential for "green" economic development; and,
- Enhancing the health of all who live and work in Hayward.

The Climate Action Plan was adopted prior to modifications to the CEQA Guidelines and adoption of guidance from BAAQMD on what qualifies as a quantified greenhouse gas reduction strategy used for tiering.⁶

The project would not conflict with the state's Climate Change Scoping Plan developed per AB 32 for 2020 or per SB 32 for 2030, the land use assumptions in Plan Bay Area, or regulations adopted by the City of Hayward to reduce greenhouse gas emissions. Thus, there will be a less than significant impact. **(Less Than Significant Impact)**

4.7.3 Conclusion

The proposed project would result in a less than significant impact from GHG emissions. **(Less Than Significant Impact)**

⁶ "Tiering" in the context of CEQA refers to the coverage of general environmental matters in broad program-level Environmental Impact Reports (EIRs), with subsequent focused environmental documents for individual projects that implement the program.

4.8 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based on a Phase I Environmental Site Assessment prepared by *ENGEO, Inc.* in June 2016. A copy of this report is attached as Appendix D of this Initial Study.

4.8.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐	1,13
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐	1,13
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐	1,13
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, will it create a significant hazard to the public or the environment?	☐	☐	☒	☐	1,13
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐	1,14
f) For a project within the vicinity of a private airstrip, will the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒	1,14
g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒	1,2
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☒	☐	☐	1,2

4.8.2 Existing Setting

4.8.2.1 *Background*

Hazardous materials encompass a wide range of substances, some of which are naturally-occurring and some of which are man-made. Examples include motor oil and fuel, metals (e.g., lead, mercury, arsenic), asbestos, pesticides, herbicides, and chemical compounds used in manufacturing and other activities. A substance may be considered hazardous if, due to its chemical and/or physical properties, it poses a substantial hazard when it is improperly treated, stored, transported, disposed of, or released into the atmosphere in the event of an accident. Determining if such substances are present on or near project sites is important because exposure to hazardous materials above regulatory thresholds can result in adverse health effects on humans, as well as harm to plant and wildlife ecology.

4.8.2.2 *Site Conditions*

Existing Uses and Known Contamination

The site is developed as a rural residential ranch used for horse grazing and material storage. Site improvements consist of a residential dwelling, outbuildings (sheds and horse stables), and overhead power lines. The residential dwelling appears to have been serviced by both a well and a septic system. A small structure with a steel door was observed on the southern portion of the property and within the vicinity of the former coops.

Outbuildings, including sheds and stables, are located southeast of the residence. Storage consisted of typical feed materials and waste debris. The interior of one of the outbuildings used to store wood and other debris was not accessible during the Phase I ESA site reconnaissance.

No known contamination has been recorded on the property.

On-Site Hazardous Materials

The project site has been residential since between the 1930's and 1940's. Therefore, residents would likely use and store small quantities of household hazardous wastes (i.e., ammonia, paints, oils) which would not be considered significant. Since the existing residence was constructed circa 1930, there may be lead based paint and/or asbestos containing materials on-site. There are no hazardous materials releases assumed to be associated with the project site.

Off-Site Hazardous Materials

The project site is located in the Stonebrae residential area of Hayward and is surrounded by residential developments and an elementary school. A golf course is located east and southeast of the site.

According to the Phase I ESA, the Stonebrae development project is listed as a closed cleanup program site. At the time of demolition, elevated concentrations of total extractable hydrocarbons (diesel) were found beneath the footprint of a 1.9-million-gallon water storage tank. Petroleum-impacted soil was excavated, transported, and disposed of at the Republic Services Landfill in

Livermore, California. In 2007, the San Francisco Bay Regional Water Quality Control Board issued a letter indicating that no further action related to the pollutant releases at the subject site was required.

Wildland Fire Hazards

The project is located adjacent to Garin Regional Park which is designated as a high fire hazard severity zone.

Hayward has adopted ABAG's 2010 Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) which would maintain and enhance a disaster-resistant region by reducing the potential for loss of life, property damage, and environmental degradation from natural disasters, while accelerating economic recovery from those disasters. The LHMP identifies future mitigation actions and priorities for achieving this goal.

4.8.2.3 *Applicable Plans, Policies, and Regulations*

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA), initially authorized in 1976, gives the U.S. EPA the authority to control hazardous waste from "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled the U.S. EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

Department of Toxic Substances Control

The Department of Toxic Substances Control (DTSC) regulates hazardous waste, remediation of existing contamination, and evaluates procedures to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of the federal RCRA and the California Health and Safety Code. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning. From these laws and regulations, DTSC develops guidelines and regulations that define what those who handle hazardous waste must do to comply with the laws. These rulemakings are subject to public review and comment.

Government Code §65962.5 (Cortese List)

Section 65962.5 of the Government Code requires the California Environmental Protection Agency (Cal EPA) to develop and update (at least annually) a list of hazardous waste and substances sites, known as the Cortese List. The Cortese List is used by the State, local agencies, and developers to comply with CEQA requirements. The Cortese List includes hazardous substance release sites identified by the Department of Toxic Substances Control (DTSC), State Water Resources Control Board (SWRCB), and the Department of Resources Recycling and Recovery (CalRecycle). The subject property is not listed on the Cortese List.

City of Hayward General Plan

The Safety Element, as well as the Natural Resources Element of the City's General Plan contains policies, recommendations, and actions to avoid or mitigate hazards and hazardous material impacts resulting from development within the City. The proposed project would be subject to conformance with applicable General Plan policies, including those listed below.

Policies	Description
Policy NR-6.15	The City shall encourage private property owners to plant native or drought-tolerant vegetation in order to preserve the visual character of the area and reduce the need for toxic sprays and groundwater supplements.
Policy HAZ-6.1	The City shall maintain its status as a Certified Unified Program Agency and implement the City's Unified Hazardous Materials and Hazardous Waste Management Program, which includes: • Hazardous Materials Release Response Plans and Inventories (Hazardous Materials Business Plans - HMBP); • California Accidental Release Prevention (CalARP) Program; • Underground Storage Tank (UST) Program; • Above-ground Petroleum Storage Act (APSA) Program, including Spill Prevention, Control, and Countermeasure (SPCC) Plans; • Hazardous Waste Generator Program; • On-site Hazardous Waste Treatment (Tiered Permit) Program; and • California Fire Code Hazardous Material Management Plans (HMMP) and Hazardous Materials Inventory Statements (HMIS).

4.8.3 Impact Discussion

- a, b) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

The proposed single-family residential development would not involve the transport, use, storage or disposal of reportable quantities of hazardous materials. Residents would likely use and store small quantities of household hazardous wastes (i.e., ammonia, paints, oils) which would not be considered significant. During construction, the project may store fuels and chemicals used in the construction of the proposed residential buildings.

Redevelopment of the proposed project will require the demolition of an abandoned rural residential structure and associated structures on the site, which may contain asbestos building materials and/or lead-based paint. In conformance with State and Local laws, a visual inspection/pre-demolition survey, and possible sampling, will be conducted prior to the demolition of the building to determine the presence of asbestos-containing materials and/or lead-based paint. The project will be required to implement the following measures in conformance with existing regulations:

- Asbestos is regulated as a hazardous air pollutant and as a potential worker safety hazard. The Bay Area Air Quality Management District's (BAAQMD) Regulation 11 and the California division of Occupational Safety and Health (Cal/OSHA)

regulations restrict asbestos emissions from demolition and renovation activities and specify safe work practices to minimize the potential for release of asbestos fibers.

- Fluorescent light ballasts may contain PCBs, and if so, are regulated as hazardous waste and must be transported and disposed of as hazardous waste.
- Cal/OSHA standards establish a maximum safe exposure level for types of construction work where lead exposure may occur, including demolition of structures where materials containing lead are present; removal or encapsulation of materials containing lead; and new construction, alteration, repair, or renovation of structures with materials containing lead.
- Lighting tubes typically contain concentrations of mercury that may exceed regulatory thresholds for hazardous waste and, as such, must be managed in accordance with hazardous waste regulations. Elemental mercury also can be found in many electrical switches which also must be managed in accordance with hazardous waste regulations.

Demolition done in conformance with these federal, State and local laws and regulations, will avoid significant exposure of construction workers and/or the public to asbestos and lead-based paint. **(Less Than Significant Impact)**

- c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Stonebrae Elementary School is located approximately 300 feet northwest of the project site, across Carden Lane.

Future residents on-site would likely use and store small quantities of household hazardous wastes (i.e., ammonia, paints, oils) which would not be considered significant. Therefore, the proposed residential uses would not use or emit significant quantities of hazardous materials that would have an impact on Stonebrae Elementary School. **(Less Than Significant Impact)**

- d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, will it create a significant hazard to the public or the environment?*

The project site is not listed on the Cortese List and, therefore, is not anticipated to have any impact on adjacent uses from existing conditions on the site. **(Less Than Significant Impact)**

- e, f) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*

Hayward Executive Airport is a general aviation airport serving local private pilots and houses over 400 aircraft including business jets.⁷ The airport is located approximately 7.2 miles west of the project site. The project site is not located within the Airport Influence Area (AIA) for Hayward Executive Airport. **(No Impact)**

The project site is not located within the vicinity of a private airstrip. Therefore, private airstrip uses would not be a hazard to people working or residing on the project site. **(No Impact)**

- g, h) *Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan? Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

The project would not interfere with an adopted emergency response plan or emergency evacuation plan. The project would be served by a single approximately 30- to 36-foot wide private street from Carden Lane which would accommodate two-way inbound and outbound traffic. The project would have an approximately 48-foot wide roundabout to accommodate emergency vehicles. **(No Impact)**

As shown in the General Plan EIR, the project site is located within a high fire hazard severity zone at the City's Wildland Urban Interface. Hayward adopted ABAG's 2010 Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) which would maintain and enhance a disaster-resistant region by reducing the potential for loss of life, property damage, and environmental degradation from natural disasters, while accelerating economic recovery from those disasters. The LHMP identifies future mitigation actions and priorities for achieving this goal. Specifically, requiring that new homes in wildland-urban-interface fire-threatened communities or in areas exposed to high-to-extreme fire threat be constructed of fire-resistant building materials and incorporate fire-resistant design features (to increase structural survivability and reduce ignitability). The project would also be required to adhere to the City's Urban/Wildland Interface Guidelines including the incorporation of a fuel management program in the covenants, conditions, and regulations (CC&Rs) to be implemented by the Homeowners' Association. The project would require appropriate fire safe design measures be incorporated into the project design to avoid contributing to wildland fire hazards in the surrounding neighborhoods.

Impact HAZ – 1: The proposed project is located in a high fire hazard severity zone and therefore may contribute to adverse impacts from wildfires.
(Significant Impact)

Mitigation Measures: The following mitigation measures would reduce impacts induced by wildland fire hazards to a less than significant level:

MM HAZ – 1.1: The project would be designed, constructed, and maintained consistent with the City's Urban/Wildland Interface Guidelines

⁷ City of Hayward. "Hayward Executive Airport". 2016. Accessed April 13, 2018. Available at: <https://www.hayward-ca.gov/airport>

including the incorporation of fire-resistant building materials, fire-resistant design features, and a fuel management program in the CC&Rs of the Homeowners' Association. The final measures to be incorporated in the project would be reviewed and approved by the Fire Marshall prior to the issuance of a building permit.

Implementation of the Urban/Wildland Interface Guidelines would reduce the impact of the project on wildland fire hazards to a less than significant level. The project, therefore, would not significantly increase hazards related to the implementation of evacuation plans or the potential for wildland fires. **(Less Than Significant Impact with Mitigation)**

4.8.4 Conclusion

The project is not proposing new hazardous materials uses and is not located on a site contaminated with hazardous materials. The proposed project would also not represent a hazard to airport operations. The project would comply with all Fire, Building, and Municipal Code requirements, including implementation of the Urban/Wildland Interface Guidelines to minimize the potential for increased fire risks to result from the project. **(Less Than Significant Impact with Mitigation)**

4.9 HYDROLOGY AND WATER QUALITY

4.9.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐	1,2
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells will drop to a level which will not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐	1,2
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which will result in substantial erosion or siltation on-or off-site?	☐	☐	☒	☐	1,2
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which will result in flooding on-or off-site?	☐	☐	☒	☐	1,2
e) Create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐	1,2
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐	1,2
g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒	1,15
h) Place within a 100-year flood hazard area structures which will impede or redirect flood flows?	☐	☐	☐	☒	1,15
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒	1,15
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒	1

4.9.2 Existing Setting

4.9.2.1 *Hydrology and Water Quality*

The water quality of streams, creeks, ponds, and other surface water bodies can be greatly affected by pollution carried in contaminated surface runoff. Pollutants from unidentified sources, known as non-point source pollutants, are washed from streets, construction sites, parking lots, and other exposed surfaces into storm drains. Urban stormwater runoff often contains contaminants such as oil and grease, plant and animal debris (e.g., leaves, dust, animal feces, etc.), pesticides, litter, and heavy metals. In sufficient concentration, these pollutants have been found to adversely affect the aquatic habitats to which they drain.

Under existing conditions, the project site primarily contains grasslands, eucalyptus woodlands, California bay laurel woodlands, and other native trees. Runoff from the site could contain sediment, fertilizers, and pesticides from landscaped areas, and metals, trash, oils and grease from the paved areas.

Surface Water

The project site is located within an area described as the Alameda Creek Watershed. The Alameda Creek Watershed consist of a 600-square-mile area. Surface runoff from the project site is conveyed to Dry Creek which is tributary to Alameda Creek and ultimately to the San Francisco Bay.

Most of the project site is undeveloped and consists of grasslands and eucalyptus woodlands. Impervious surfaces on the project site consist primarily of the 1,098 square foot home at the top of the hill and associated paved driveway. Approximately 146,335 square feet of the site is unpaved and pervious. Runoff from the site sheet flows across the site and primarily flows to storm drain lines in Carden Lane that range between 18 inches to 36 inches. Portions of the northern part of the site naturally drain to the off-site storm drainage basin maintained by the Stonebrae development near the intersection of Carden Lane and Stonebrae Road.

Groundwater

The City of Hayward is located in the Santa Clara Valley Groundwater Basin. Two sub basins coincide with the land within its boundaries: the East Bay Plain Subbasin and the Niles Cone Subbasin. The Niles Cone Subbasin corresponds with southern portions of Hayward and is bisected by the Hayward fault. The Hayward Fault is relatively impermeable and impedes groundwater flow, as demonstrated by the varying groundwater levels on either side.

4.9.2.2 *Flooding*

According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map, the site is located within Zone X, which is an area determined to be outside the 500-year floodplain and outside the 1% and 0.2% annual chance floodplains.

4.9.2.3 *Other Inundation Hazards*

Dam Failure

The Association of Bay Area Governments (ABAG) compiles the dam failure inundation hazard maps submitted to the State Office of Emergency Services by dam owners throughout the Bay Area. The City of Hayward also maintains dam inundation maps of their dam facilities. The Hayward Dam Inundation Area map shows that the project site is not located within a dam failure inundation zone.⁸

Sea Level Rise

The project site is located at an elevation of approximately 1,153 feet above sea level (ASL) at the property boundary at Carden Lane to approximately 1,275 feet ASL at the southern corner of the parcel. The project site is not within a shoreline area vulnerable to projected sea level rise from global climate change of up to 55 inches.

Earthquake-Induced Waves and Mudflow Hazards

The site is not located near a large body of water, near the ocean, or in a landslide hazard zone, and therefore, is not subject to inundation by seiche, tsunami, or mudflow.

4.9.2.4 *Applicable Plans, Policies, and Regulations*

National Flood Insurance Program

In 1968, Congress created the National Flood Insurance Program (NFIP) in response to the rising cost of taxpayer funded disaster relief for flood victims and the increasing amount of damage caused by floods. The NFIP makes federally-backed flood insurance available for communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage. The Federal Emergency Management Agency (FEMA) manages the NFIP and creates Flood Insurance Rate Maps (FIRMs) that designate 100-year floodplain zones and delineate other flood hazard areas. A 100-year floodplain zone is the area that has a one percent chance of being flooded in any one year based on historical data. As discussed in more detail in *Section 4.9.2.2 above*, the project site is not located in a 100-year floodplain.

City of Hayward Municipal Code

City of Hayward Municipal Code Chapter 9, Article 4, implements building standards to comply with the Cobey-Alquist Flood Plain Management Act (Water Code sections 8400 et seq.) and National Flood Insurance Program established pursuant to Federal law (42 U.S.C. section 4001 et seq.).

City of Hayward Municipal Code Chapter 10, Article 8, requires a permit for grading or clearing activities. Applicants must submit a description of the grading or clearing activities to take place, a site map or grading plan, an erosion or sediment plan, a work schedule, and other applicable materials.

⁸ City of Hayward General Plan Background Report, Figure 9-5 Hayward Dam Inundation Areas. January 2013.

City of Hayward Municipal Code, Chapter 11, Article 5, protects water quality by eliminating non-stormwater discharges, controlling illicit discharges, minimizing industrial and commercial pollutants, reducing municipal pollutants, improving construction site controls, and improving erosion control.

City of Hayward Flood Plain Management Ordinance

The City Flood Plain Management Ordinance is intended to establish regulations consistent with Federal and State requirements and set development standards and restrictions for publicly and privately-owned land within flood-prone, mudslide, or flood-related erosion areas. The Ordinance requires the City to participate in the NFIP.

The Flood Plain Administrator for the City of Hayward, the City Engineer, is responsible for making determinations in accordance with the Flood Plain Management Ordinance. Responsibilities include ensuring that development applications comply with ordinance requirements, that required State and Federal permits have been obtained, that a proposed development site is reasonably safe from flooding, that the proposed development does not adversely affect area carrying capacity, and that building permits for flood control projects meet requirements.

City of Hayward General Plan

The City of Hayward General Plan includes policies applicable to all development projects in Hayward. The proposed project would be subject to conformance with the following General Plan policies, including the ones listed below.

Policies	Description
Policy NR-6.4	The City shall minimize grading and, where appropriate, consider requiring on-site retention and settling basins.
Policy NR-6.5	The City shall concentrate new urban development in areas that are the least susceptible to soil erosion into water bodies in order to reduce water pollution.
Policy NR-6.6	The City shall promote stormwater management techniques that minimize surface water runoff and impervious ground surfaces in public and private developments, including requiring the use of Low-Impact Development (LID) techniques to best manage stormwater through conservation, onsite filtration, and water recycling.

4.9.3 Impact Discussion

a, f) Violate any water quality standards or waste discharge requirements? Otherwise substantially degrade water quality?

The project would result in the disturbance of more than one acre of soil; therefore, prior to commencement of construction the applicant is required to obtain permit coverage under the Construction General Permit by filing a Notice of Intent (NOI) and a Storm Water Pollution Prevention Plan (SWPPP) with the State Water Resources Control Board (SWRCB). The proposed project would also be subject to the San Francisco Bay Area-wide Municipal Regional Permit (MRP) because it would add or replace more than 10,000 square feet of impervious surfaces. The MRP requires post-construction storm water runoff to be managed with Low Impact Development methods such as infiltration and/or bio retention.

According to the Hydromodification Susceptibility Map⁹, the project site is located in a hill or high slope region meaning that it is subject to hydromodification¹⁰. As a result of that, the proposed project would adhere to C.3 hydromodification requirements by installing a hydromodification vault¹¹ to store runoff into Dry Creek after it has been cleaned by the proposed bio-retention features to release runoff at a moderate rate thereby not excessively eroding the receiving channels and causing channel incision. Therefore, with the proposed bio-retention features and hydromodification vault, the project would have a less than significant impact on water quality and hydromodification. **(Less Than Significant Impact)**

- b) *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells will drop to a level which will not support existing land uses or planned uses for which permits have been granted)?*

The project will be connected to the existing East Bay Municipal Utility District (EBMUD) water supply and will not involve the use of on-site water wells and will not deplete groundwater supplies. Although the project would increase the quantity of impervious surfaces on the site, most of the site is underlain by bedrock such that site runoff does not substantially contribute to groundwater recharge, and the increased impervious surface area would not be great enough to substantially interfere with groundwater recharge of water supply aquifers; thus, there would be a less than significant impact. **(Less Than Significant Impact)**

- c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which will result in substantial erosion or siltation on-or off-site?*

The project would alter drainage patterns in that runoff from the primarily undeveloped site flows overland to Carden Lane and towards Dry Creek. Under the proposed project, stormwater runoff would be collected in an on-site storm drainage system (known as a hydromodification vault) for conveyance to an on-site bio-retention basin for filtration prior to discharge into Dry Creek. Runoff would be directed to the project's on-site storm drain system. The project would not alter the course of a nearby stream or river and modifications to the on-site drainage patterns would not result in substantial erosion or siltation on or off site. Thus, there would be a less than significant impact. **(Less Than Significant Impact)**

- d) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which will result in flooding on-or off-site?*

⁹ C.3 Stormwater Technical Guidance. April 18, 2018.

¹⁰ Hydromodification is the alteration of the natural flow of water and often takes the form of channel modification or channelization.

¹¹ A hydromodification vault is a cement block located underground that is designed to collect stormwater and release flows at a moderate pace to reduce the risk of eroding the receiving channels.

The project site is primarily undeveloped with the exception of a single-family home and associated barn structures located throughout the eastern portion of the property. A gravel driveway exists on the western portion of the property from Carden Lane. In total, the project site currently has 7,500 square feet of impervious surfaces. The project site would add approximately 144,900 square feet of impervious surfaces for a total of 152,400 square feet. The majority of the site, approximately 5.5 acres, would remain undeveloped.

Stormwater flows from impervious areas of the residential lots would be directed to bio-retention areas located on each individual lot. Stormwater runoff from the private roadway network would be directed to eight additional bioretention areas located in open space areas throughout the project site. These bioretention areas are designed to filter contaminants in stormwater runoff that result from impervious surfaces. After the stormwater runoff has been filtered, the remaining stormwater flows would be directed to a hydromodification vault which collects stormwater and has been sized to release it into the stormwater system at a moderate pace to limit channel incision. The hydromodification vault would release filtered runoff into the storm drain lines located in Carden Lane that eventually flow to Dry Creek which is tributary to Alameda Creek. Although the project would increase the amount of site surface flows due to substantially increasing the amount of impervious surface area, the increased volume would be managed by directing runoff into the bioretention basins and hydromodification vault, and so it is not expected to significantly increase the rate of water flowing to Dry Creek.

All drainage from the site is required to be treated before it enters the storm drain system and managed such that post-development runoff rates do not exceed pre-development runoff rates. As a result, the project would not alter the course of a stream or river nor increase the rate of surface runoff such that downstream flooding would result. **(Less Than Significant Impact)**

- e) *Create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

The project site is designated as *Suburban Density* in the General Plan, which allows for increased development on the site of up to 4.3 dwelling units per acre. All drainage from the impervious surfaces on the site is required to be treated before it enters the storm drain system and flows are to be metered by the hydromodification vault discussed previously to ensure there is sufficient capacity to handle any new drainage from the property. The project would be required to limit the rate of runoff from the site so that under the design storm there is no net increase compared to pre-development levels. Because the project will employ a stormwater control plan with the use of bioretention areas for water quality and a hydromodification vault to manage the runoff rate, the project would not exceed the capacity of the local storm drainage system nor contribute substantial amounts of polluted runoff. **(Less Than Significant Impact)**

- g, h) *Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? Place within a 100-year flood hazard area structures which will impede or redirect flood flows?*

The project site is not located within a 100-year flood hazard area and; therefore, would not affect flood hazard areas in the City of Hayward. **(No Impact)**

- i) *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*

According to the City's General Plan, the project site is not located in an area subject to inundation resulting from dam failure. **(No Impact)**

- j) *Result in inundation by seiche, tsunami, or mudflow?*

The project site is not located in a tsunami inundation area, an area subject to mudflow, nor would it be vulnerable to seiche because there are no nearby enclosed water bodies. **(No Impact)**

4.9.4 Conclusion

The proposed project would not have significant impacts on hydrology and water quality. **(Less Than Significant Impact)**

4.10 LAND USE AND PLANNING

4.10.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Physically divide an established community?	☐	☐	☒	☐	1,2
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐	1,2
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒	1,2

4.10.2 Existing Setting

The project site is located in a suburban area of Hayward with single-family residential uses to the north east, and west of the project site, and a private golf course and Garin Regional Park to the south and southwest of the project site. The project site is bounded by Stonebrae Road to the north, Country Club Drive to the east, and Carden Lane to the west.

The project site is currently developed with a small single-family residence with a horse stable and storage unit. The site is not used for agricultural or forestry uses. The site is not located within an adopted habitat conservation plan or natural community conservation plan.

4.10.2.1 *Applicable Plans, Policies, and Regulations*

General Plan Designation and Zoning

The project site is designated in the General Plan as *Suburban Density*. This allows for one to 4.3 dwelling units per acre. The *Suburban Density* designation generally applies to rural and suburban areas located within the eastern hills of the Hayward Planning Area. Typical building types include single-family homes, second units, and ancillary structures. Typical lot sizes generally range from 10,000 square feet to one acre. However, Planned Developments may include the clustering of units on smaller lots to preserve common open space, as is currently proposed by the project.

The project site is currently in the *Agricultural* zoning district. All uses permitted in *Agricultural* districts include single-family dwellings or group homes for six or fewer residents. Agricultural uses such as crop and tree farming or selling fruits, vegetables, and flowers grown on the premises are also permitted. Other permitted uses include a Christmas tree or pumpkin patch lot, a day care home, or a public agency facility. Building heights are limited to 40 feet in height. The project proposes to rezone the site to Planned Development zoning district to allow the proposed clustering of units.

4.10.3 Impact Discussion

a) *Physically divide an established community?*

The project site is located in a developed suburban area with residential uses to the north, east, and west, and a golf course and regional park open space to the south and southeast. Implementation of the proposed project would result in the removal of an existing single-family home and the construction 19 single-family homes on the site. The layout and design of the project does not include any features that would physically divide the community (e.g., impeding roadways or sidewalks). Therefore, the project would not physically divide an established community. **(Less Than Significant Impact)**

b) *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect?*

According to the City's General Plan, the project site is designated as *Suburban Density*, which allows for one to 4.3 dwelling units per acre. The project site has a density of approximately 2.1 units per acre, therefore it is consistent with General Plan.

The project is currently in the *Agricultural* Zoning District. A rezoning to Planned Development (PD) and a residential subdivision are proposed in order to accommodate the proposed 19-unit residential development that would involve lots ranging from 7,915 to 21,024 square feet to allow preservation of large areas of hillside open space.

The project would not result in a fundamental conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. Thus, the project would result in a less than significant land use impact. **(Less Than Significant Impact)**

c) *Conflict with any applicable habitat conservation plan or natural community conservation plan?*

The project site is not located within an adopted habitat conservation plan or natural community conservation plan. **(No Impact)**

4.10.4 Conclusion

The proposed project would not conflict with land use plans or policies and therefore would have a less than significant impact on land use. **(Less Than Significant Impact)**

4.11 MINERAL RESOURCES

4.11.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?	☐	☐	☐	☒	1,2
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒	1,2

4.11.2 Impact Discussion

a, b) *Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state? Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

There are no known mineral resources on the project site, and the project site is not identified as a site known to have mineral resources. Therefore, there would be no impact on mineral resources. **(No Impact)**

4.11.3 Conclusion

There would be no adverse impacts on mineral resources resulting from the proposed project. **(No Impact)**

4.12 NOISE AND VIBRATION

4.12.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project result in:					
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐	1,2
b) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐	1,2
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐	1,2
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐	1,2
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐	1,2
f) For a project within the vicinity of a private airstrip, will the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐	1,2

4.12.2 Existing Setting

4.12.2.1 *Background*

Noise may be defined as unwanted sound. Acceptable levels of noise vary from land use to land use. In any one location, the noise level will vary over time, from the lowest background or ambient noise level to temporary increases caused by traffic or other sources. State and federal standards have been established as guidelines for determining the compatibility of a particular use with its noise environment.

There are several methods of characterizing sound. The most common in California is the A-weighted sound level or dBA.¹² This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, different types of noise descriptors are used to account for this variability. Typical noise descriptors

¹² The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. All sound levels in this discussion are A-weighted, unless otherwise stated.

include maximum noise level ($L_{\max}$), the energy-equivalent noise level (L_{eq}), and the day-night average noise level (L_{dn}). The L_{dn} noise descriptor is commonly used in establishing noise exposure guidelines for specific land uses. For the energy-equivalent sound/noise descriptor called L_{eq} the most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources which create a relatively steady background noise in which no particular source is identifiable.

Since the sensitivity to noise increases during the evening hours, 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The Day/Night Average Sound Level, L_{dn} (sometimes also referred to as DNL), is the average A-weighted noise level during a 24-hour day, obtained after the addition of 10 dB to noise levels measured in the nighttime between 10:00 p.m. and 7:00 a.m. The Community Noise Equivalent Level (CNEL) is a 24-hour A-weighted noise level from midnight to midnight after the addition of five dBA to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 dBA to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.

Construction Noise

Construction is a temporary source of noise impacting residences and businesses located near construction sites. Construction noise can be significant for short periods of time at any particular location and generates the highest noise levels during grading and excavation, with lower noise levels occurring during building construction. Large pieces of earth-moving equipment, such as graders, scrapers, and bulldozers, generate maximum noise levels of 90 to 95 dBA $L_{\max}$ at a distance of 50 feet. Typical hourly average construction-generated noise levels are approximately 81 to 88 dBA L_{eq} measured at a distance of 50 feet from the site during busy construction periods. Construction generated noise levels drop off at a rate of about six dBA per doubling of distance between the source and receptor. Shielding by buildings or terrain often result in lower construction noise levels at distant receptors.

4.12.2.2 *Existing Noise Conditions*

The project site is bounded by Stonebrae Road to the north, Country Club Drive to the east, Carden Lane to the west, and residences and a golf course to the southeast and Garin Regional Park to the southwest. The noise environment on the project site results primarily from vehicular traffic along Stonebrae Road. Construction activity is ongoing in the vicinity as the Stonebrae Master Plan is built out southeast of the site.

4.12.2.3 *Applicable Plans, Policies, and Regulations*

City of Hayward General Plan

The General Plan includes policies for the purpose of avoiding or mitigating impacts resulting from planned development projects with the City. The following policies are specific to noise and vibration and are applicable to the proposed project.

City of Hayward Relevant Noise and Vibration Policies

Policies	Description
Policy HAZ-8.1	The City shall strive to locate noise sensitive uses, (e.g., residences, schools, hospitals, libraries, religious institutions, and convalescent homes) away from major sources of noise.
Policy HAZ-8.4	The City shall consider the visual impact of noise mitigation measures and shall require solutions that do not conflict with urban design goals and standards.
Policy HAZ-8.5	The City shall require the design of new residential development to comply with the following noise standards: • The maximum acceptable interior noise level for all new residential units (single-family, duplex, mobile home, multi-family, and mixed use units) shall be an Ldn of 45 dB with windows closed. • The maximum acceptable exterior noise level for the primary open space area of a detached single-family home, duplex or mobile home, which is typically the backyard or a fenced side yard, shall be an Ldn of 60 dB. This standard shall be measured at the approximate center of the primary open space area. This standard does not apply to secondary open space areas, such as front yards, balconies, stoops, and porches.
Policy HAZ-8.20	The City may require development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on those uses, to the extent feasible.
Policy HAZ-8.21	The City shall limit the hours of construction and maintenance activities to the less sensitive hours of the day (7:00 AM to 7:00 PM Monday through Saturday and 10:00 AM to 6:00 PM on Sundays and holidays).
Policy HAZ-8.22	The City shall require a vibration impact assessment for proposed projects in which heavy-duty construction equipment would be used (e.g. pile driving, bulldozing) within 200 feet of an existing structure or sensitive receptor. If applicable, the City shall require all feasible mitigation measures to be implemented to ensure that no damage or disturbance to structures or sensitive receptors would occur.

City of Hayward Municipal Code

Hayward Municipal Code, Chapter 4, Article 1 (Public Nuisances) contains the City's Noise Regulations (as amended by Ordinance 11-03, adopted March 22, 2011). The Regulations are applicable to all noise sources in the city limits, with the exception of Hayward Executive Airport, which is regulated separately under the City's Airport Noise Ordinance (addressed separately in this section below); and from animals, which are administered under the City's Animal Control Ordinance. The Regulations establish quantitative noise limits based on measured dBA for activities occurring on residential, commercial and industrial, and public property; noise from vehicles; construction, alteration of structures and landscaping activities. The Regulations also establish a separate and independent qualitative method of determining "unreasonable noise" emanating from private property. Categorical Exemptions to the Regulations are specified for certain activities or source categories, including Alarms and Warning Devices, Emergency Response Activities, Special Events, Generators Required for Medical Purposes and Power Outages, and so forth. In some cases, a permit from the City is required to qualify for an exemption.

4.12.3 Impact Discussion

- a) *Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

The Noise Element of the General Plan establishes 60 dBA CNEL as the maximum suggested exterior noise level for land uses that include single-family residences. Based on the General Plan noise contours, noise levels on the project site are expected to be at the 60 CNEL due to traffic levels along Hayward Boulevard, Stonebrae Road, and Carden Lane.

Assuming typical construction methods, interior noise levels are approximately 15 dBA lower than exterior levels within residential units with the windows partially open and approximately 20 to 25 decibels lower than exterior noise levels with the windows closed. Based on the General Plan noise contours for Hayward Boulevard, Stonebrae Road, and Carden Lane, and the City's noise compatibility standards, typical construction methods would ensure interior noise levels in the proposed residences would be maintained at or below 45 dBA DNL. **(Less Than Significant Impact)**

- b) *Result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?*

Construction of the proposed single-family development will not require pile driving or other significant vibration causing construction activity. The proposed residences once occupied would not generate excessive or perceptible vibration. The grading and removal of the top twenty feet of bedrock along the ridge on the project site may require some limited blasting, which could lead to temporary groundborne vibration and noise, but it is not anticipated to be lengthy in duration, would occur during the day, and be located over 250 feet from the nearest structures. **(Less Than Significant Impact)**

- c) *Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

The proposed single-family residential structures will include air conditioning units generating noise and would generate approximately 14 additional trips in the AM peak hour and approximately 19 additional trips in the PM peak hour in the project area. Increased vehicle trips would not result in a significant increase in ambient noise levels as new traffic volumes from 19 dwelling units would be low compared to existing traffic volumes on Stonebrae Road and surrounding streets. The proposed project air conditioning units will be designed to meet the City's 60 dBA L_{eq} noise levels at adjacent residential property lines. **(Less Than Significant Impact)**

- d) *Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Project implementation would result in intermittent short-term noise impacts resulting from construction-related activities. However, this temporary impact would be reduced via

implementation of Best Management Practices (BMPs). BMPs are required at the time of building permit issuance for all development and would reduce any impacts of additional noise level exposure to insignificance. Such BMPs include requirements for construction vehicles and equipment to be properly muffled. Construction hours would be limited from 7:00 am to 7:00 pm Mondays through Saturdays, and 10:00 am to 6:00 pm on Sundays and holidays.

The construction schedule assumes that the project would be built out over a period of approximately 16 months beginning in 2019. The project would be constructed in six different phases: demolition, site preparation, grading, building construction, paving, architectural coating. The site demolition and grading phase would take approximately three months. The building construction phase would take approximately 13 months.

Impact NV – 1: The project would construct single-family residences adjacent to noise sensitive, residential and educational uses which could result in temporary disturbances during construction. **(Significant Impact)**

Mitigation Measure: The following mitigation measures will be implemented by the project to ensure impacts from construction noise are reduced to a less than significant level:

MM NV – 1.1: The project applicant shall incorporate the following practices into the construction documents to be implemented by the project contractor:

- Maximize the physical separation between noise generators and noise receptors. Such separation includes, but is not limited to, the following measures:
 - Use heavy-duty mufflers for stationary equipment and barriers around particularly noisy areas of the site or around the entire site;
 - Use shields, impervious fences, or other physical sound barriers to inhibit transmission of noise to sensitive receptors;
 - Locate stationary equipment to minimize noise impacts on the community;
 - Minimize backing movements of equipment;
- Use quiet construction equipment whenever possible;
- Impact equipment (e.g., jack hammers and pavement breakers) shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. Compressed air exhaust silencers shall be used on other equipment. Other quieter procedures, such as drilling rather than using impact equipment, shall be used whenever feasible;
- Prohibit unnecessary idling of internal combustion engines; and
- Select routes for movement of construction-related vehicles and equipment in conjunction with the Hayward Development Services and Public Works Departments so that noise-sensitive

areas, including residences and schools, are avoided as much as possible.

- The project sponsor shall designate a “disturbance coordinator” for construction activities. The coordinator would be responsible for responding to any local complaints regarding construction noise and vibration. The coordinator would determine the cause of the noise or vibration complaint and would implement reasonable measures to correct the problem.
- The construction contractor shall send advance notice to neighborhood residents within 300 feet of the project site as well as the Stonebrae Elementary School administrator regarding the construction schedule and including the telephone number for the disturbance coordinator at the construction site. Copies of the advance of construction activity shall be provided to the City prior to grading or demolition permit.

With the implementation of the following mitigation measures, the proposed project would reduce noise impacts to a less than significant level. **(Less Than Significant Impact With Mitigation)**

e, f) *For a project located within an airport land use plan or, where such a plan has not yet been adopted, within 2 miles of a public use airport, would the project expose people residing or working in the project area to excessive noise levels? For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*

Hayward Executive Airport is a major international airport located approximately 7.2 miles west of the project site. The project site is not located within the Airport Influence Area (AIA) for Hayward Executive Airport. Therefore, any overhead aircraft noise would not be significant in relation to the existing, local traffic noise. **(Less Than Significant Impact)**

The project is not within the vicinity of a private airport. **(No Impact)**

4.12.4 Conclusion

The proposed project, with the implementation of mitigation measure NV – 1.1, would ensure that construction noise impacts would be less than significant. **(Less Than Significant Impact With Mitigation)**

4.13 POPULATION AND HOUSING

4.13.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐	1,2
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐	1,2
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐	1,2

4.13.2 Existing Setting

According to California Department of Finance 2016 Census data, Hayward's population for 2016 was 158,985 persons.¹³ In 2016, there were 49,292 households with an average of 3.22 persons per household.¹⁴

The jobs/housing balance is the relationship between the number of housing units required as a result of local jobs and the number of residential units available in the City. This relationship is quantified by the jobs/employed resident ratio. When the ratio reaches 1.0, a balance is struck between the supply of local housing and local jobs. The jobs/employed resident ratio is determined by dividing the number of local jobs by the number of employed residents that can be housed in local housing. The jobs/employed residents' ratio for Hayward in 2010 was 1.06, which means that there were 1.06 jobs for every employed resident in the City.¹⁵

4.13.3 Impact Discussion

- a) *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

¹³ State of California, Department of Finance. E-1 Population Estimates for Cities, Counties, and the State—January 1, 2015 and 2016. January 2016. Available at: <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-1/>

¹⁴ State of California, Department of Finance. E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2016. January 2016. Available at:

<http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>

¹⁵ General Plan Draft Environmental Impact Report, page 385. February 2014.

Implementation of the project will construct 19 single-family homes in a suburban area. This increase in housing would result in a net increase in local population by approximately 60 residents.¹⁶ The number of additional residents will be part of the planned growth in the planning area of the City as envisioned in the General Plan. The population increase would not induce substantial additional growth in the City of Hayward, nor would the project include construction of new infrastructures (roads, utilities, etc.) capable of accommodating growth beyond the project itself. The impact would be less than significant. **(Less Than Significant Impact)**

b, c) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Construction of the proposed project would result in the construction of 19 single-family residences. The project site contains an existing house, however, removal of the residence for the proposed project would not displace people or existing housing. The impact would be less than significant. **(Less Than Significant Impact)**

4.13.4 Conclusion

Implementation of the proposed project would result in a less than significant impact on the City's population and housing supply. **(Less Than Significant Impact)**

¹⁶ Based on the latest US Census data for the City, the average residents per household is 3.2. 3.2 residents per household x 19 new units = 60 residents.

4.14 PUBLIC SERVICES

4.14.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project					
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
- Fire Protection?	☐	☐	☒	☐	1,2
- Police Protection?	☐	☐	☒	☐	1,2
- Schools?	☐	☐	☒	☐	1,2
- Parks?	☐	☐	☒	☐	1,2
- Other Public Facilities?	☐	☐	☒	☐	1,2

4.14.2 Existing Setting

4.14.2.1 *Fire Service*

The City of Hayward Fire Department (HFD) provides fire, paramedic advanced life support (ALS)/emergency medical (EMS), and emergency services to all areas within the City limits, and to the Fairview Fire Protection District (FFPD) on a contract basis. The closest station to the project site is Station No. 5, located at 28595 Hayward Boulevard, approximately 0.9 miles west of the project site.

4.14.2.2 *Police Protection Service*

Police protection services for the project site are provided by the City of Hayward Police Department (HPD), which is headquartered at 300 West Winton Avenue, approximately five miles west of the project site. The Hayward Police Department employs over 190 sworn officers in a staff of approximately 300.

4.14.2.3 *Schools*

The project site is located within the Hayward Unified School District. Students in the project area would attend Stonebrae Elementary School, Bret Harte Middle School, and Hayward High School. Stonebrae Elementary School is located northwest of the project site, across Carden Lane. Bret Harte Middle School is located approximately 4.7 miles northwest of the project site. Hayward High School is located approximately 5 miles northwest of the project site.

4.14.2.4 *Parks*

The Hayward Area Recreation and Park District (HARD) and the East Bay Regional Park District (EBRPD) provide parks and recreation services in the City. HARD operates 57 parks within the City and provides 159.85 acres of local parkland, 36.71 acres of school parks, 91.74 acres of community parkland, 271.29 acres of districtwide parkland, 1,627 acres of regional parkland, and 145.7 acres of open space, trails, and linear parkland. Within the City of Hayward, there are currently (2012) 1.02 acres of local parkland per 1,000 residents, which is just above HARD's minimum standard for local parks (1.0 acres per 1,000 residents).

Garin Regional Park is approximately 250 feet southwest of the project site. The nearest local park, J.A. Lewis Park, is approximately 0.5 miles northwest of the project site.

4.14.2.5 *Libraries*

The City of Hayward library system includes the Main Library at 835 C Street (approximately 4.7 miles northwest of the site) and Weekes Branch Library (approximately 7 miles southwest of the site) at 27300 Patrick Avenue.

The City's General Plan does not identify a service ratio goal, or other performance standard for library services.

4.14.2.6 *Applicable Plans, Policies, and Regulations*

Government Code Section 65996

State law (Government Code Section 65996) specifies an acceptable method of offsetting a project's effect on the adequacy of school facilities as the payment of a school impact fee prior to issuance of a building permit. California Government Code Sections 65995-65998, sets forth provisions for the payment of school impact fees by new development as exclusive means of "considering and mitigating impacts on school facilities that occur or might occur as a result of any legislative or adjudicative act, or both, by any state or local agency involving, but not limited to, the planning, use, or development of real property" [§65996(a)]. The legislation goes on to say that the payment of school impact fees "are hereby deemed to provide full and complete school facilities mitigation" under CEQA [§65996(b)]. The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code. The school impact fees and the school districts' methods of implementing measures specified by Government Code 65996 would mitigate project-related increases in student enrollment.

Quimby Act

The 1975 Quimby Act (California Government Code section 66477) authorized cities and counties to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. The Act states that the dedication requirement of parkland can be a minimum of three acres per thousand residents or more, up to 5 acres per thousand residents if the existing ratio is greater than the minimum standard. Revenues generated through in lieu fees collected and the Quimby Act cannot be used for the operation and maintenance of park facilities. In 1982, the Act was substantially amended. The amendments further defined acceptable uses of or

restrictions on Quimby funds, provided acreage/population standards and formulas for determining the exaction, and indicated that the exactions must be closely tied (nexus) to a project's impacts as identified through studies required by CEQA.

City of Hayward General Plan

The Land Use and Community Character Element of the City's General Plan contain policies, recommendations, and actions to protect and enhance existing and future open space areas within the City. All future development allowed by the project would be subject to conformance with applicable General Plan policies, including those listed below.

Policy	Description
Policy LU-1.3	The City shall direct local population and employment growth toward infill development sites within the City, especially the catalyst and opportunity sites identified in the Economic Development Strategic Plan.
Policy LU-3.1	The City shall promote efforts to make neighborhoods more complete by encouraging the development of a mix of complementary uses and amenities that meet the daily needs of residents. Such uses and amenities may include parks, community centers, religious institutions, daycare centers, libraries, schools, community gardens, and neighborhood commercial and mixed-use developments.
Policy LU-9.1	The City shall require new hillside developments to provide public trail access (as appropriate) to adjacent greenways, open space corridors, and regional parks.
Policy LU-9.2	The City shall coordinate with school districts, park districts, utility providers, and other government agencies that are exempt from local land use controls to encourage facility designs that are compatible in scale, mass, and character with the neighborhood, district, or corridor in which they are located.
Policy LU-7.6	The City shall require new hillside developments to provide public trail access (as appropriate) to adjacent greenways, open space corridors, and regional parks.

4.14.3 Impact Discussion

4.14.3.1 *Fire Protection Service*

Station No. 5 is closest to the project site and is located approximately 0.9 miles west of the site. Although construction of the proposed project may incrementally increase the demand for fire and medical services, the project would not require the construction or expansion of fire protection facilities as the proposed project site within City limits and was envisioned for residential development in the City's General Plan. The proposed project would be designed to comply with City requirements for fire access and onsite fire prevention facilities (e.g. fire hydrants and/or sprinkler systems) as well as the City's Hillside Design and Urban/Wildland Interface Guidelines. For these reasons, the project will have less than a significant impact and not require new or physically altered fire station facilities. **(Less Than Significant Impact)**

4.14.3.2 *Police Protection Service*

The police headquarters are located at 300 West Winton Avenue, approximately five miles west of the project site. The proposed project would not result in an increased demand for

police services or require the expansion or construction of police facilities. The project's potential impact on police services would be less than significant and not require new or physically altered police facilities. **(Less Than Significant Impact)**

4.14.3.3 *Schools*

The proposed project would add 19 single-family residential units thereby increasing the potential number of school-aged children. According to a Demographic Report on Student Population Projections estimated between the Fall of 2015 to 2021 for Hayward Unified School District, single-family detached homes yield approximately 0.143 elementary school students, 0.033 middle school students, and 0.050 high school students. Using the student yield rates mentioned, the proposed residential development would yield approximately three (3) elementary school students, one (1) middle school student, and one (1) high school student.¹⁷

The students would attend Stonebrae Elementary School, Bret Harte Middle School, and Hayward High School. It is not anticipated that small number of new students generated by the project would require the physical alteration of any existing school facilities. Under Section 65996 of the State Government Code, payment of school impact fees established by SB 50 is deemed to constitute full and complete mitigation for school impacts from development. Developer(s) of new housing units would be required to pay these school impact fees at the time of building permit issuance. The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code. Fulfillment of this requirement would mitigate the development of residential uses' impacts to schools to a less than significant level. **(Less Than Significant Impact)**

4.14.3.4 *Park Impacts*

The City of Hayward provides and maintains parkland and open space within the City for residents and visitors to enjoy. Based on the latest US Census data for the City, it is estimated that the project would generate approximately 60 net new residents. The project residents would be served by existing parks in the project area and other open space and recreational facilities in the region, including the adjacent Garin Regional Park managed by the East Bay Regional Park District.

It is not anticipated that the project's incremental demand for park and recreational facilities in the area would result in the substantial, physical deterioration of existing park and recreational facilities or require the expansion or construction of new facilities. Additionally, a small tot lot will be constructed on-site for future residents. The developer will be required to pay applicable park in-lieu fees; thus, the impact is considered less than significant. **(Less Than Significant Impact)**

¹⁷ 0.143 (Elementary School Student Yield Factor) x 19 (Total number of dwelling units) = 3 students.
0.033 (Middle School Student Yield Factor) x 19 (Total number of dwelling units) = 1 student.
0.050 (High School Student Yield Factor) x 19 (Total number of dwelling units) = 1 student.

4.14.4 Conclusion

The proposed project would result in a less than significant impact to public services. **(Less Than Significant Impact)**

4.15 RECREATION

4.15.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?	☐	☐	☒	☐	1,2
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐	1,2

4.15.2 Existing Setting

The Hayward Area Recreation and Park District (HARD) and the East Bay Regional Park District (EBRPD) provide parks and recreation services in the City. HARD operates 57 parks within the City and provides 159.85 acres of local parkland, 36.71 acres of school parks, 91.74 acres of community parkland, 271.29 acres of districtwide parkland, 1,627 acres of regional parkland, and 145.7 acres of open space, trails, and linear parkland. Within the City of Hayward, there are currently (2012) 1.02 acres of local parkland per 1,000 residents, which is just above HARD's minimum standard for local parks (1.0 acres per 1,000 residents).

Garin Regional Park is approximately 250 feet southwest of the project site. The nearest local park, J.A. Lewis Park, is approximately 0.5 miles northwest of the project site.

4.15.3 Impact Discussion

a, b) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated? Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The City of Hayward provides and maintains parkland and open space within the City for residents and visitors to enjoy. Based on the latest US Census data for the City, it is estimated that the project would generate approximately 60 net new residents. The project residents would be served by existing parks in the project area and other open space and recreational facilities in the region, including the adjacent Garin Regional Park managed by the East Bay Regional Park District.

It is not anticipated that the project's incremental demand for park and recreational facilities in the area would result in the substantial, physical deterioration of existing park and recreational facilities or require the expansion or construction of new facilities. The

developer will be required to pay applicable park in-lieu fees; thus, the impact is considered less than significant. **(Less Than Significant Impact)**

4.15.4 Conclusion

The proposed project would not substantially deteriorate existing park facilities or expand recreational facilities that would adversely affect the existing environment. **(Less Than Significant Impact)**

4.16 TRANSPORTATION/TRAFFIC

The following discussion is based on a Traffic Impact Study prepared by *Stantec* in February 2019. A copy of this report is included as Appendix E of this Initial Study.

4.16.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐	1,2,16
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐	1,16
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒	1,15
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?	☐	☐	☒	☐	1,2
e) Result in inadequate emergency access?	☐	☐	☒	☐	1,2
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐	1,2,16

4.16.2 Existing Setting

Roadway Network

Regional Access

Hayward Boulevard is a major east-west arterial that starts from Mission Boulevard in the west and ends in the east where the street name changes to Fairview Avenue as it becomes a north-south street. It is primarily a two-lane roadway near the project site.

Fairview Avenue is a two-lane north-south arterial that connects from Hayward Boulevard in the south to Five Canyons Parkway in the north.

Local Access

Stonebrae Road is a two-lane east-west collector street that leads from the roundabout intersection of Hayward Boulevard/ Fairview Avenue in the west and leads to the Stonebrae gold course subdivision in the east.

Carden Lane is a two lane north-south local street that starts from Stonebrae Road in the north and ends at approximately 750 feet to the south (gated entry to the Garin Park). Currently, it primarily provides access to the Stonebrae Elementary School.

4.16.2.1 *Methodology*

Level of Service

Traffic conditions were evaluated using level of service (LOS). LOS is a qualitative description of operating conditions ranging from LOS A (free-flow conditions with little or no delay) to LOS F (jammed conditions with excessive delays). The analysis methods for signalized and unsignalized intersections are described below.

Unsignalized Intersection

According to Hayward's General Plan, the minimum acceptable standard for unsignalized intersection operations is LOS E. The correlation between the levels of service and average control delay for unsignalized intersections is provided in Table 4.16-1.

Table 4.16-1 Unsignalized Intersection Level of Service Standards		
Level of Service	Description	Average Control Delay Per Vehicle (seconds)
A	Little or no traffic delay	10.0 or less
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	Extreme traffic delays	Greater than 50.0

Study Intersections

The traffic analysis evaluated the impacts of the proposed project on three unsignalized intersections during the weekday AM and PM peak hour periods of traffic. The AM peak hour is between 7:00 AM and 9:00 AM and the PM peak hour period is between 2:00 PM and 4:00 PM. The study intersections are listed below and shown on Figure 4.16-1.

1. Carden Lane/Stonebrae Elementary School Driveway
2. Carden Lane/Stonebrae Road
3. Stonebrae Road/Hayward Boulevard

The intersection of Carden Lane/Stonebrae Elementary School Driveway is a T-intersection with One Way Stop control on the side street school driveway.

The intersection of Carden Lane/ Stonebrae Road is a T-intersection with All Way Stop control. The westbound approach has its own left-turn pocket.

The intersection of Stonebrae Road/Hayward Boulevard is a three-legged roundabout with yield control. Crosswalks exit on the south and west leg of the intersection.

Traffic Scenarios Analyzed

Traffic conditions at study intersections were evaluated for two scenarios: existing conditions and existing plus project. Table 4.16-2 below describes each scenario.

Table 4.16-2 Traffic Scenarios Analyzed	
Scenario	Description
Existing Conditions	Existing conditions are represented by existing peak hour traffic volumes on the existing roadway network.
Existing Plus Project Conditions	Existing plus project conditions were estimated by adding projected project peak hour trips generated by the proposed residential project to the existing condition. Project generated traffic was estimated using the vehicular trip generation rates recommended by the Institute of Transportation Engineers manual entitled <i>Trip Generation, 9th Edition</i> .



Source: Stantec, 2018.

Legend

- xx(XX) AM (PM) Peak Hour Turning Movement Volumes
- Study Intersections
- Stop Control Intersections

STUDY INTERSECTIONS

FIGURE 4.16-1

4.16.3 Impact Discussion

- a) *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*

Project Trip Generation Estimates

The traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution, an estimate is made of the directions to and from which the project trips would travel. In the project trip assignment, the project trips are assigned to specific streets.

Project trip estimates for the proposed project are based on trip generation rates obtained from the *Institute of Transportation Engineers' (ITE's) Trip Generation Manual, Ninth Edition, 2012*. Based on the recommended ITE trip generation rates for single-family uses, the proposed 19-unit development would result in 14 new A.M. peak hour trips, and 19 new P.M. peak hour trips.¹⁸

Existing Plus Project Conditions

The project trips, as represented in the project trip assignment discussed above, were added to existing traffic volumes to obtain existing plus project traffic volumes. Intersection levels of service were evaluated against City of Hayward LOS standards. The results of the intersection LOS analysis under existing plus project conditions are summarized in Table 4.16-3.

¹⁸ Total number of units (19 units) x ITE's A.M. trip generation rate (0.74) = Total number of A.M. peak hour trips (14 trips)
Total number of units (19 units) x ITE's P.M. trip generation rate (1.00) = Total number of P.M. peak hour trips (19 trips)

Table 4.16-3 Existing and Existing Plus Project Intersection Levels of Service					
Study Intersection	Peak Hour	Existing Condition		Existing Plus Project Condition	
		Average Delay (sec.) ¹	LOS	Average Delay (sec.) ¹	LOS
1 Carden Lane/Stonebrae Elementary School Driveway ²	AM	37.6	E	41.5	E
	PM	9.7	A	9.9	A
2 Carden Lane/Stonebrae Road	AM	18.9	C	19.8	C
	PM	8.6	A	8.7	A
3 Stonebrae Road/Hayward Boulevard (Roundabout) ³	AM	--	C	--	C
	PM	--	A	--	A
Notes: ¹ Delay shown for the signalized intersections is the weighted average control delay for all turning movements approaching the intersection. ² Delay reported for worst movement for one-way stop-controlled intersections. Overall intersection operation is acceptable. ³ HCM 2000 for roundabouts uses ICU for LOS calculations rather than delay.					

The results of the level of service analysis show that, measured against the City of Hayward level of service policies, all intersections with the addition of project trips will operate at an acceptable LOS E or better during the weekday peak traffic hours. Therefore, project impacts to traffic congestion would be less than significant. **(Less Than Significant Impact)**

Operational and Site Access

Potential vehicle queuing impacts were checked for all the study intersections. Vehicle queuing was estimated based on the 95th percentile queue length.¹⁹ With the added project traffic, it was estimated that the highest queue increase is for the southbound through and right-turn movements at the intersection of Carden Lane/ Stonebrae Road during the AM peak hour.

The estimated increase from proposed project vehicle queues is approximately 10 feet, which is less than a half car length. The projected right-turn project traffic would be proceeding past the school driveway and would not add to the right-turn queue going into the Stonebrae Elementary School. The estimated queue increase at this intersection is not considered to be significant. **(Less Than Significant Impact)**

- b) *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

¹⁹ A 95th percentile queue length is an estimated measure of the queuing of vehicles 95 percent of the time in the intersection.

The Congestion Management Program requires a traffic impact analysis when a project would result in 100 or more peak hour trips. The project, which would generate approximately 14 AM and 19 PM peak hour trips, does not require a detailed traffic impact analysis to show conformity to the CMP. The project would not result in a conflict with any other adopted plan, ordinance, or policy related to the effectiveness of the circulation system. **(Less Than Significant Impact)**

- c) *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

- The project would not affect air traffic patterns in the vicinity of the site. **(No Impact)**
- d) *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?*

Development in accordance with City design standards will ensure that hazards due to a design feature would be avoided. **(Less Than Significant Impact)**

- e) *Result in inadequate emergency access?*

The residential development proposed on the site will be reviewed and approved by the Hayward Fire Department to ensure adequate emergency access. The project would be served by a single approximately 30- to 36-foot wide private street from Carden Lane which would accommodate two-way inbound and outbound traffic. The project would have an approximately 48-foot wide roundabout to accommodate emergency vehicles. **(Less Than Significant Impact)**

- f) *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*

The proposed project would not conflict with existing or planned multimodal transportation facilities or conflict with the City of Hayward's General Plan policies and regulations. The proposed project would provide sidewalks, will connect to existing bike and pedestrian trails in the area, and does not remove or impede any existing facilities in the area. **(Less Than Significant Impact)**

4.16.4 Conclusion

The proposed project would not generate a substantial amount of new vehicle trips that would exceed the capacity of the street system serving the site, nor would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. The project would provide adequate site access. The project would not result in inadequate emergency access, nor change in air traffic patterns. **(Less Than Significant Impact)**

4.17 UTILITIES AND SERVICE SYSTEMS

4.17.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐	1,2
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐	1,2
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐	1,2
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐	1,2
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐	1,2
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐	1,2
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐	1,2

4.17.2 Existing Setting

4.17.2.1 Water

Water service to the project site is provided by East Bay Municipal Utility District (EBMUD). The City receives water through two aqueducts along Mission Boulevard and Hesperian Boulevard that have a total capacity of 32 million gallons per day (mgd). The aqueducts deliver potable water through a pressurized distribution system with over 360 miles of pipelines, 14 water storage reservoirs, seven pump stations, transmission system pressure regulating valves, numerous zonal pressure reducing valves, and two booster pump stations.

The water supplied to Hayward is predominantly from the Sierra Nevada, delivered through the Hetch-Hetchy aqueducts, but also includes treated water produced by the SFPUC from its local watershed and facilities in Alameda County.

The project would connect to an existing 8-inch water line in Carden Lane as well as an 8-inch water line in Country Club Drive, both of which connect to a 12-inch water line in Stonebrae Road.

4.17.2.2 Storm Drainage

As discussed in *Section 4.9 Hydrology and Water Quality*, storm drain lines that range between 12 inches to 36 inches are located in Carden Lane, Stonebrae Road, and Country Club Drive. Storm drain lines in the project area are provided and maintained by the City of Hayward. Runoff from these lines discharges to the Dry Creek watershed.

4.17.2.3 Wastewater/Sanitary Sewer System

The City of Hayward owns and operates the wastewater collection and treatment system that serves almost all of the residential, commercial, and industrial users within the incorporated City limits, and limited portions of the adjacent unincorporated areas of Alameda County by contract. The City of Hayward Water Pollution Control Facility (WPCF) treatment municipal wastewater and conveys it to the East Bay Dischargers Authority disposal facility. The East Bay Dischargers Authority disposes of the treated wastewater.

The City of Hayward 2015 Urban Water Management Plan estimates that Hayward collected and treated 10.1 mgd of wastewater.²⁰ The Hayward WPCF is permitted to provide treatment for up to 18.5 million gallons per day (mgd), which is anticipated to be reached by 2035.

4.17.2.4 Solid Waste

The City of Hayward Department of Public Works, Utilities and Environmental Services Division, provides weekly garbage collection and disposal services through a Franchise Agreement with Waste Management, Inc. (WMI), a private company. WMI subcontracts with a local non-profit, Tri-CED Community Recycling, for residential collection of recyclables.

Altamont Landfill is the designated disposal site in the City's Franchise Agreement with Waste Management, Inc. (WMI). In 2001 Altamont Landfill received County approval to increase capacity, adding 25 years to the life of the landfill and extending the expected closure date to the year 2040.

Hayward has exceeded the State population and employee per capita solid waste diversion targets of 50 percent established by Senate Bill (SB) 1016. Additionally, the City has recorded diversion rates of 67 to 71 percent for each of the past four years in an effort to achieve the countywide goal of diverting 75 percent of all generated waste from landfills.

²⁰ City of Hayward Urban Water Management Plan. *Table 6-3: Wastewater Treatment and Discharge Within Service Area in 2015*. June 2016.

4.17.2.5 *Applicable Plans, Policies, and Regulations*

Assembly Bill 939

Assembly Bill 939 (AB 939) established the California Integrated Waste Management Board (now CalRecycle) and required all California counties to prepare integrated waste management plans. AB 939 required all municipalities to divert 50 percent of the waste stream by the year 2000.

California Green Building Standards Code

In January 2010, the State of California adopted the California Green Building Standards Code that establishes mandatory green building standards for all buildings in California. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality. These standards include a mandatory set of guidelines, as well as more rigorous voluntary measures, for new construction projects to achieve specific green building performance levels:

- Reducing indoor water use by 20 percent;
- Reducing wastewater by 20 percent;
- Recycling and/or salvaging 50 percent of nonhazardous construction and demolition debris; and
- Providing readily accessible areas for recycling by occupant.

City of Hayward General Plan

The General Plan includes policies for the purpose of avoiding or mitigating impacts resulting from planned development projects with the City. The following policies are specific to utilities and service systems and are applicable to the proposed project.

Policies	Description
Policy PFS-1.2	The City shall annually review and update the Capital Improvement Program to ensure adequate and timely provision of public facility and municipal utility provisions.
Policy PFS-1.4	The City shall, through a combination of improvement fees and other funding mechanisms, ensure that new development pays its fair share of providing new public facilities and services and/or the costs of expanding/upgrading existing facilities and services impacted by new development (e.g., water, wastewater, stormwater drainage).
Policy PFS-4.6	The City shall strive to adopt innovative and efficient wastewater treatment technologies that are environmentally-sound.
Policy NR-6.9	The City shall require water customers to actively conserve water year-round, and especially during drought years.
Policy NR-6.10	The City shall support efforts by the regional water provider to increase water recycling by residents, businesses, non-profits, industries, and developers, including identifying methods for water recycling and rainwater catchment for indoor and landscape uses in new development.
Policy NR-6.15	The City shall encourage private property owners to plant native or drought-tolerant vegetation in order to preserve the visual character of the area and reduce the need for toxic sprays and groundwater supplements.

Policy PFS-4.9 The City shall ensure the provision of adequate wastewater service to all new development, before new developments are approved, and support the extension of wastewater service to existing developed areas where this service is lacking.

4.17.3 **Impact Discussion**

a, b, e) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Pursuant to the Federal Clean Water Act and California's Porter-Cologne Water Quality Control Act, the RWQCB regulates wastewater discharges to surface waters, such as San Francisco Bay, through the NPDES program. Wastewater permits contain specific requirements that limit the pollutants it discharges. As required by the RWQCB, the WWTP monitors its wastewater to ensure that it meets all requirements. The RWQCB routinely inspects treatment facilities to ensure permit requirements are met.

Sewage from development on the project site would be treated at the WWTP in accordance with the existing NPDES permit. The approximately 60 new project residences would contribute an estimated additional average base wastewater flow of 4,539 gallons per day (GPD).²¹

The flow from the proposed project would load to the existing 30-inch and 36-inch sanitary sewer lines located in Carden Lane and Country Club Road. The Hayward WPFC currently treats 10.1 mgd of wastewater and is permitted to provide treatment for up to 18.5 million gallons per day (mgd), which is anticipated to be reached by 2035. Therefore, the Hayward WPFC has adequate capacity to serve the project site. **(Less Than Significant Impact)**

c) Require or result in the construction of stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Under existing conditions, the 8.88-acre site is primarily undeveloped with the exception of a single-family home and associated barn structures located throughout the eastern portion of the property. A gravel driveway exists on the western portion of the property from Carden Lane. The project site would substantially increase the area covered impervious surfaces (roofs, patios, driveways, roads, etc.).

All drainage from the site is required to be treated before it enters the storm drain system, and to ensure there is sufficient capacity to handle increased drainage from the property, the project would be required to limit the runoff from the site so that there is no net increase compared to pre-development levels. The project will employ a stormwater control plan with the use of bio-retention areas to all site drainage, and a hydromodification vault to meter

²¹ 85% of gross water demand

runoff leaving the site before being discharged into the storm drain system to ensure sufficient capacity, the project will have a less than significant impact. **(Less Than Significant Impact)**

- d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

The water supplied to Hayward is predominantly from the Sierra Nevada, delivered through the Hetch-Hetchy aqueducts, but also includes treated water produced by the San Francisco Public Utilities Commission (SFPUC) from its local watershed and facilities in Alameda County. The City receives water through two aqueducts along Mission Boulevard and Hesperian Boulevard that have a total capacity of 32 million gallons per day (mgd). The aqueducts deliver potable water through a pressurized distribution system with over 360 miles of pipelines, 14 water storage reservoirs, seven pump stations, transmission system pressure regulating valves, numerous zonal pressure reducing valves, and two booster pump stations.

Although the project proposes an increased population on the project site, the project water demand has been accounted for in the City's Urban Water Management Plan. Based on water usage rates of approximately 89 gallons per capita per day (GPCD) for 60 new residences as defined in the Urban Water Management Plan, the project would require approximately 5,340 GPD which can be conveyed in existing water lines available to the site and by existing supplies.^{22,23} **(Less Than Significant Impact)**

- f, g) *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? Comply with federal, state, and local statutes and regulations related to solid waste?*

Waste generation and disposal data for Hayward is maintained by CalRecycle. According to the CalRecycle, the total amount of solid waste landfilled in 2015 was 100,123 tons, which equals a solid waste generation rate of approximately 3.5 pounds per resident per day. Assuming this rate remains stable, the additional 90 residents projected under the proposed project would generate approximately 315 pounds (0.16 tons) of landfilled solid waste per day.²⁴ The project would increase solid waste generation in the City by well less than one percent and therefore would not significantly impact landfill capacity. **(Less Than Significant Impact)**

4.17.4 Conclusion

The proposed project would have a less than significant impact on utilities and service systems. **(Less Than Significant Impact)**

²² Sewage demand is typically 85 percent of a project's residential water demand. Project water demand for the proposed residential uses is based on the residential sewage generation of 6,808 GPD, and therefore, is estimated to be 4,539 GPD.

²³ 89 gallons per capita per day x 60 new residents (3.2 persons/household x 19 residences) = 5,340 gallons per day

²⁴ CalRecycle Disposal Reporting System, available at www.calrecycle.ca.gov/LGCentral/Reports/DRS/Destination/JurDspFa.aspx. Accessed April 17, 2018.

4.18 MANDATORY FINDINGS OF SIGNIFICANCE

4.18.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐	Pg. 10-106
b) Does the project have impacts that are individually limited, but cumulatively considerable ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐	Pg. 10-106
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐	Pg. 10-106

4.18.2 Project Impacts

As discussed in the individual sections, the proposed project would not degrade the quality of the environment with the implementation of identified standard permit conditions and mitigation measures. The project includes mitigation measures to avoid or reduce biological resources, cultural resources, geology and soils, and noise impacts to a less than significant level.

As discussed in *Section 2.4 Biological Resources*, the project may impact sensitive species (California red-legged frog, pallid bat, and Alameda striped racer) and nesting birds (including golden eagle and white-tailed kite) protected under the Migratory Bird Treaty Act and therefore requires the implementation of mitigation measures MM BIO – 1.1 through MM BIO – 8.2 for sensitive species, including avoidance of take of individuals and provision of suitable replacement habitat, and nesting preconstruction bird surveys.

There are no historic buildings on-site or in the immediate project vicinity as discussed in *Section 2.5 Cultural Resources*. However, the project requires implementation of appropriate mitigation measures if project construction encounters unknown buried archaeological resources. **(Less Than Significant Impact with Mitigation)**

4.18.3 Cumulative Impacts

Under Section 15065(a)(3) of the CEQA Guidelines, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has potential environmental effects “that are individually limited, but cumulatively considerable.” As defined in Section 15065(a)(3) of the CEQA Guidelines, cumulatively considerable means “that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.”

Because criteria air pollutant and GHG emissions would contribute to regional and global emissions of such pollutants, the identified thresholds developed by BAAQMD and used by the City of Hayward were developed such that a project-level impact would also be a cumulatively considerable impact. The project would not result in a significant emissions of criteria air pollutants or GHG emissions and, therefore, would not make a substantial contribution to cumulative air quality or GHG emissions impacts.

With the implementation of mitigation measures and standard permit conditions, residential development on the site would not result in significant geology and soils or hydrology and water quality impacts and would not contribute to cumulative impacts to these resources as they are specific to the site and immediate surroundings. Also, the project would not impact agricultural and forest resources or mineral resources and, therefore, the project would not contribute to a significant cumulative impact on these resources.

The project site is located adjacent to Stonebrae Country Club, which as of Fall 2018 has a remainder of approximately 96 homes that are planned to be constructed in the final phase (Village C) of the total 614 homes approved to be developed at full build-out. Since the proposed project is 19 units, it would incrementally contribute to the increased traffic, air quality, and noise impacts previously disclosed in connection with implementation of Stonebrae development because it comprises less than five percent of the total number of units proposed to be constructed in the project vicinity.

Biology

The proposed project, in conjunction with the Stonebrae Country Club development, would not result in the significant loss of sensitive habitat or special-status species. The project applicant would be required to purchase 8.2 acres of habitat from a USFWS-approved mitigation or conservation bank(s) for the California red-legged frog and Alameda striped racer. Pre-construction nesting bird surveys are required as mitigation, therefore, the project would have a less than significant cumulative impact on migratory birds. **(Less Than Significant Cumulative Impact)**

Noise

Typically, a three (3) dBA noise increase would be perceivable by sensitive receptors. In order for traffic noise to increase by 3 dBA, traffic volumes would need to double along a local roadway. Under the cumulative condition, the proposed project would not double existing daily traffic volumes along Carden Lane or Stonebrae Road such that sensitive receptors would be affected by significant traffic related noise from cumulative projects. **(Less Than Significant Cumulative Impact)**

Public Services

As described in *Section 4.14.3.1*, the project is served by the Hayward Fire Department (HFD) which provides fire service to Hayward's residents. Since the project would be contributing an incremental increase in the population and is surrounded by the Stonebrae Country Club development, the fire services have been adequately sized to meet the needs of Stonebrae Country Club, and therefore, the project would not result in the need for additional fire facilities.

As described in *Section 4.14.3.2*, the project is located within the service area of the Hayward Police Department. None of the cumulative projects served by Hayward would result in the expansion of the service area and, therefore, the incremental increase in demand would not result in the need for additional police facilities. The proposed project units are consistent with the development assumptions for the site in the General Plan, and its incremental increase in demand for utilities and public services has been accounted for in the General Plan EIR's cumulative analysis. **(Less Than Significant Cumulative Impact)**

Traffic

There are no other pending or reasonably foreseeable projects in the vicinity, therefore future cumulative traffic conditions reflect traffic from the subject project and the full build-out of the adjacent Stonebrae Country Club. The Stonebrae project was the subject of an EIR in 1997, which included a traffic analysis that identified all feasible transportation improvements to be built by Stonebrae. It should be noted that EIR utilized a significance threshold of LOS D, and the City of Hayward now considers LOS E an acceptable level of service. Over the past 20 years, the Stonebrae development has been largely implemented (96 units remain as of Fall 2018), as have the various associated transportation improvements, such that future cumulative conditions are largely represented by current conditions. Future changes to the traffic conditions in the area would be primarily limited to additional project trips, which are minimal, i.e. 14 A.M. and 19 P.M. peak hour trips in total. For these reasons, the project would not make a cumulatively considerable contribution to a significant cumulative impact.

4.18.3.1 *Direct or Indirect Adverse Effects on Human Beings*

Consistent with Section 15065(a)(4) of the CEQA Guidelines, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. Under this standard, a change to the physical environment that might otherwise be minor must be treated as significant if people would be significantly affected. This factor relates to adverse changes to the environment of human beings generally, and not to effects on particular individuals. While changes to the environment that could indirectly affect human beings would be represented by all of the designated CEQA issue areas, those that could directly affect human beings include Construction TACs, hazardous materials, and noise. However, implementation of mitigation measures and General Plan policies would reduce these impacts to a less than significant level. No other direct or indirect adverse effects on human beings have been identified. **(Less Than Significant Cumulative Impact).**

4.18.4 Conclusion

With the implementation of the proposed mitigation measures identified in pages 15-106 of this Initial Study, the impacts disclosed would not be significant or cumulatively considerable. **(Less Than Significant Cumulative Impact)**

Checklist Sources

1. Professional judgment and expertise of the environmental specialist preparing this assessment, based upon a review of the site and surrounding conditions, as well as a review of the project plans.
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6. Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2011.
7. Illingworth & Rodkin, Inc. *29080 Fairview Avenue Residential Project Construction TAC Assessment*. August 9, 2016.
8. LSA, Inc. *Cavallo Highlands Tree Inventory and Appraisal*. March 30, 2017.
9. LSA, Inc. *Clean Water Act Preliminary Jurisdictional Delineation*. March 2017.
10. LSA, Inc. *Biological Constraints Analysis*. February 2019.
11. Basin Research Associates. *Cultural Resources Assessment*. July 18, 2016.
12. ENGEO, Inc. *Preliminary Geotechnical Investigation*. March 2017.
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15. County of Alameda. *FEMA Flood Zones*. Available at <http://msc.fema.gov/portal>. Accessed April 16, 2018.
16. Stantec. *Traffic Impact Study of Proposed Residential Subdivision at 29080 Fairview Avenue*. February 22, 2019.

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LSA, Inc. *Biological Resources Impacts Analysis*. April 2018.

Stantec. *Traffic Impact Study of Proposed Residential Subdivision at 29080 Fairview Avenue*.
February 22, 2019.

SECTION 6.0 LEAD AGENCY AND CONSULTANTS

6.1 LEAD AGENCY

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