28571 and 28591 Harvey Avenue Residential Project

Final Initial Study – Mitigated Negative Declaration

prepared by

City of Hayward
777 B Street
Hayward, California 94541
Contact: Carl Emura, Associate Planner

prepared with the assistance of

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

August 2019

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
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Initial Study

This document is the Final Initial Study – Mitigated Negative Declaration (IS-MND) for 28571 and 28591 Harvey Avenue Residential Project. The Draft IS-MND circulated for a 20-day public review period that began on July 19 and ended on August 9, 2019. Responses to comments on the Draft IS-MND are provided in the Responses to Comments on the Draft IS-MND document. In one instance, the text of the Final IS-MND has been modified in response to comments received. Added text is shown in underline. The change did identify new significant impacts or significant impacts of increased severity compared to the impacts identified in the Draft IS-MND. Because the change to the IS-MND is not considered substantial in accordance with 15073.5(b) and the information added merely clarifies and amplifies the information previously provided in the analysis, recirculation of the MND is not required. The Final IS-MND is not complete until it has been adopted by the City of Hayward City Council; consequently, additional revisions or changes may be made to this document prior to that time.

1. Project Title

28571 and 28591 Harvey Avenue Residential Project

2. Lead Agency Name and Address

City of Hayward
Planning Division
777 B Street
Hayward, California 94541

3. Contact Person and Phone Number

Carl Emura, Associate Planner, (510) 583-4209

4. Project Location

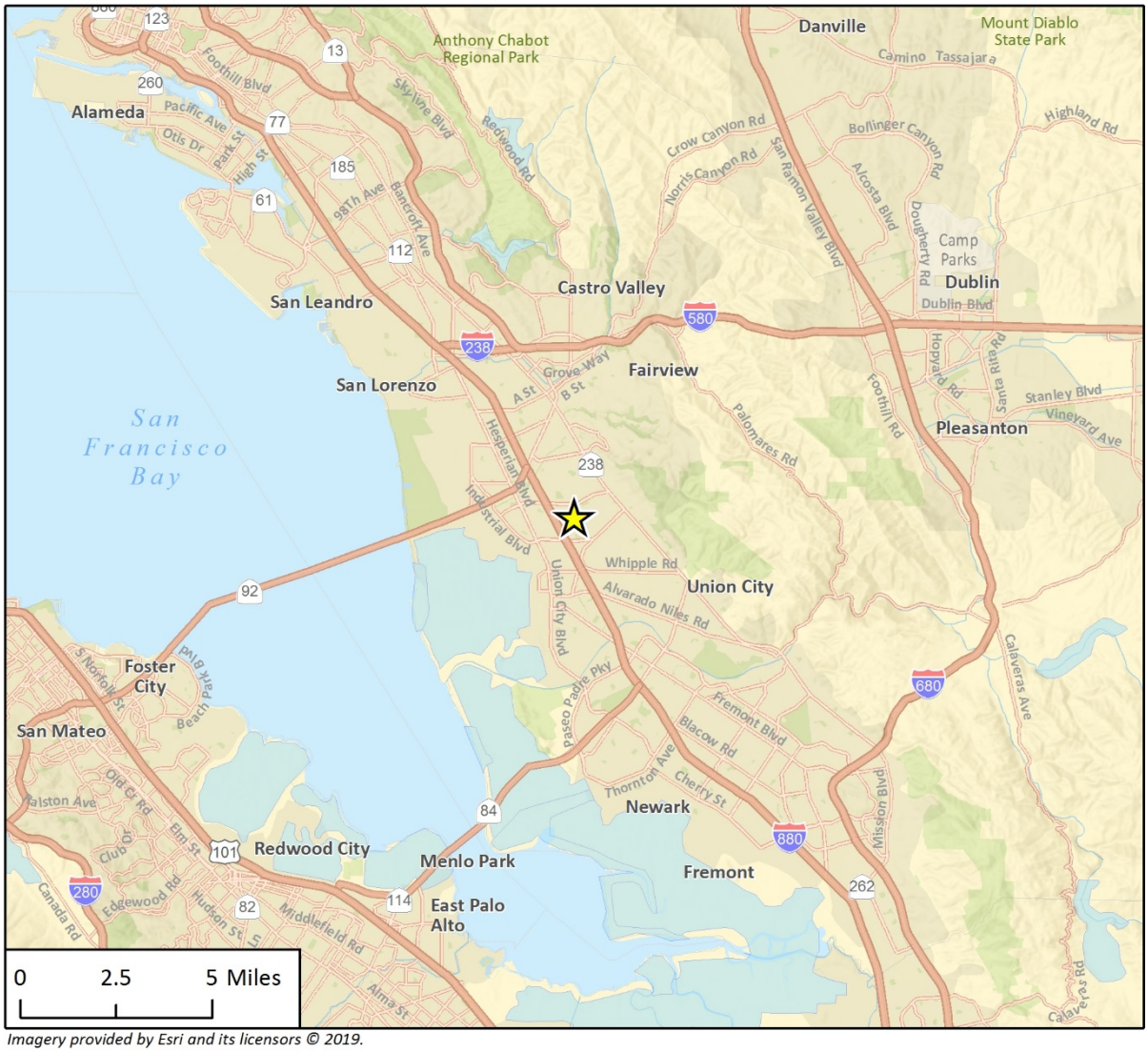
The project site encompasses approximately 1.83 acres and consists of two assessor's parcels at 28571 and 28591 Harvey Avenue in the City of Hayward (APNs 464-0060-005-02 and 464-0060-006). Figure 1 shows the location of the project site in the regional context. Figure 2 shows an aerial view of the project site and immediate surroundings.

5. Project Sponsor's Name and Address

Nuvera Homes
7041 Koll Center Parkway, Suite 170
Pleasanton, California 94566

City of Hayward
28571 and 28591 Harvey Avenue Residential Project

Figure 1 Regional Location



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Project Location

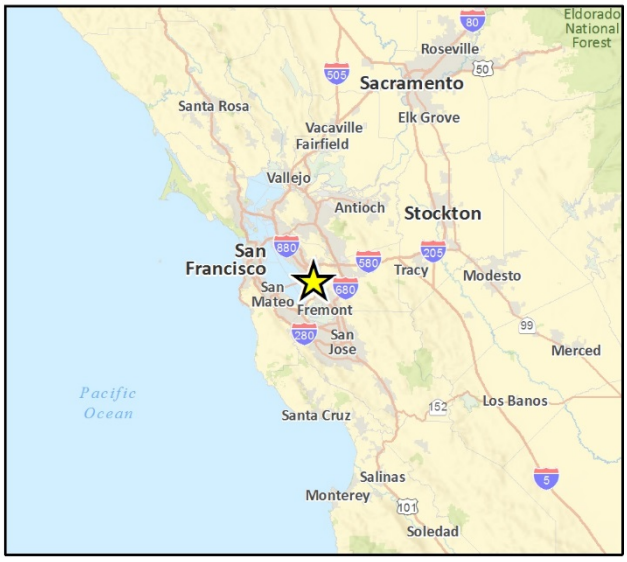

Figure 2 Project Site Location

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6. General Plan Designation

LDR (Low Density Residential)

7. Zoning

RS (Single-Family Residential)

8. Description of Project

The proposed project would involve a subdivision of the approximately 1.83-acre site into 12 lots to develop 12 single-family residential units and a private street and court that would have access from Harvey Avenue. Five of the detached single-family units would include attached Accessory Dwelling Units (ADU). The proposed project would include both private open space (i.e. rear yard areas) for each residence and an approximately 2,900 square-foot shared open space area. The proposed project would involve a Tentative Tract Map and a zone change for both parcels from RS (Single-Family Residential) to PD (Planned Development) to allow for smaller minimum lot sizes than the current RS zoning allows.

Table 1 on the following page summarizes the characteristics of the proposed project. Figure 3 shows the proposed site plan.

Access and Parking

Vehicular access to the project site would be provided from Harvey Avenue to the internal private circulation network (i.e. a private street shown as Drive Aisle A in Figure 3). Each residence would be accessed via a driveway from the new private street and court and would include an attached two-car garage. All of the units would have driveways that could accommodate two additional parked vehicles. Additionally, six spaces of street parking on the proposed new private street would also be available for residents and guests, as well as five additional on-lot accessory parking spaces to serve the ADUs and guests. The internal end of the proposed private street would include a "hammerhead" turn-around area for emergency vehicles.

The proposed project would also involve replacing the sidewalk on the project frontage along Harvey Avenue. The proposed internal private street would include a five-foot-wide sidewalk and private access easement along its north side.

Open Space and Landscaping

The proposed project would include private open space for each residential unit as well as shared open space areas. The amount of private open space for each unit would range between 515 square feet and 2,063 square feet depending on lot area. Shared open space (2,790 square feet) would be provided in the northern portion of the project site at the end of the proposed private street between lots five and six.

Twenty-four trees, including 10 off-site trees with canopies that extend onto the project site, were evaluated as a part of the preliminary arborist report for the proposed project (HortScience, Inc. 2018, Appendix A). According to the arborist report and site plans for the proposed project, all onsite trees (14 in total) would be removed.

Table 1 Project Summary

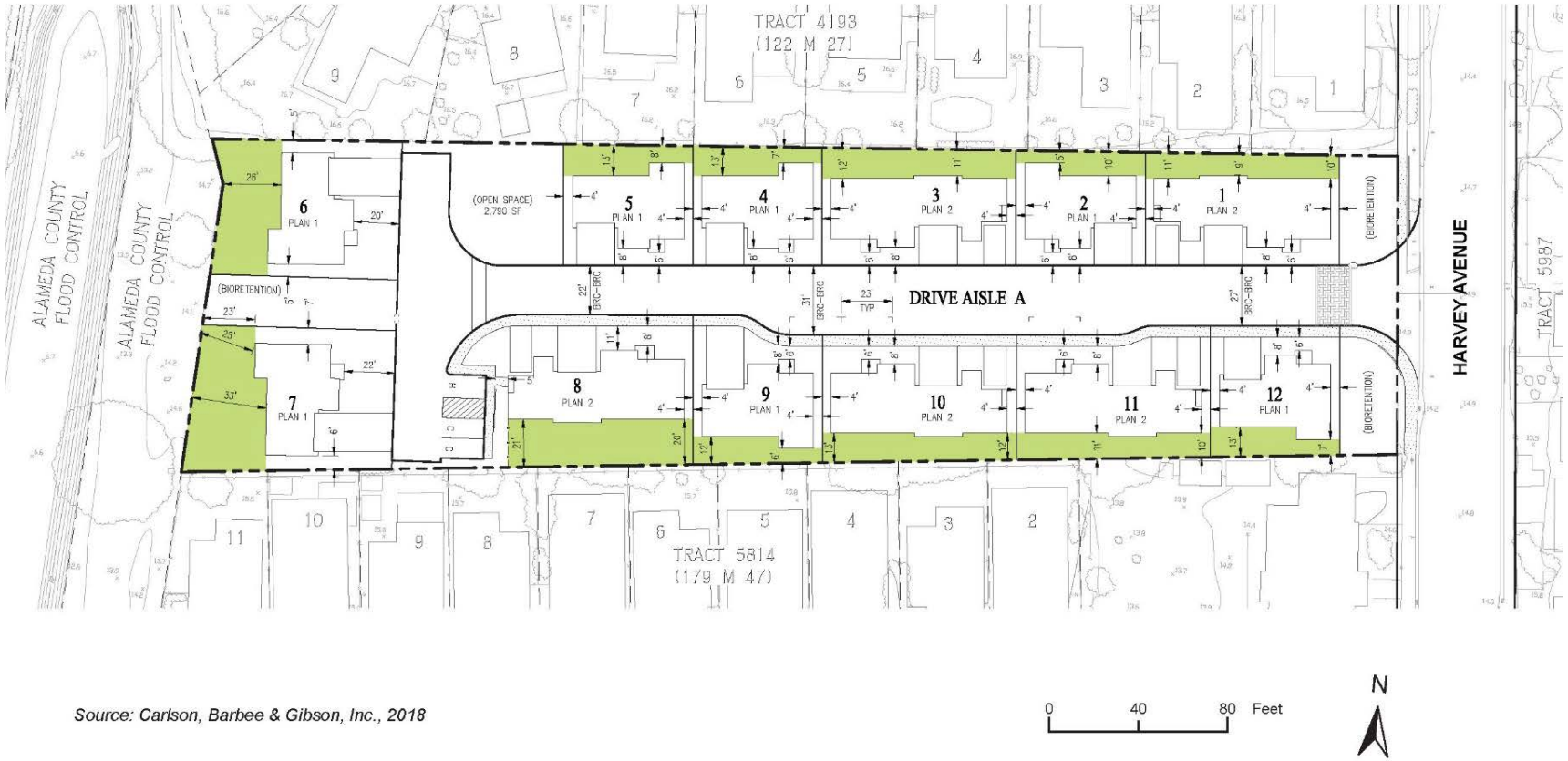
Project Size	
Gross area (acres)	1.83 acres
Net area (acres)[1]	1.38 acres
Residential Units	
Four-bedroom	7 units
Five-bedroom with ADU	5 units
Total	12 units
Overall Density (excluding ADU)[2]	8.7 du/ac
Lot Sizes	
Lot 1	4,366 sf
Lot 2	2,971 sf
Lot 3	4,549 sf
Lot 4	3,094 sf
Lot 5	3,141 sf
Lot 6	5,040 sf
Lot 7	5,802 sf
Lot 8	6,747 sf
Lot 9	3,628 sf
Lot 10	4,937 sf
Lot 11	4,963 sf
Lot 12	3,391 sf
Parking	
Garage	24 spaces
Private driveway	28 spaces
On-street/Guest	6 spaces
On Lot ADU parking	5 spaces
Total	63 units
Open Space	
Private	12,601 sf
Shared	2,792 sf
Total	15,393 sf

Notes: sf = square feet, du/ac = dwelling units per acre

[1]Net area = Gross area – private street, sidewalk and dedication

[2] Accessory dwelling units are excluded from land use density calculations. The density for this project is 12 units divided by 1.38 net acres or 8.7 units per acre. Per the Hayward 2040 General Plan, the maximum allowed density for the LDR land use designation is 8.7 du/ac (City of Hayward 2014).

Figure 3 Proposed Site Plan



Source: Carlson, Barbee & Gibson, Inc., 2018

The proposed project would involve planting 31 new trees of varying species including valley oak (*Quercus lobata*), 'October Glory' red maple (*Acer rubrum*) and crape myrtle (*Lagerstroemia x 'Tuscarora'*), throughout the project site. The landscaping and irrigation systems would comply with the City's current Water-Efficient Landscape Ordinance and Bay-Friendly Water Efficient Landscape Ordinance. Low-flow spray, bubbler, or drip irrigation methods would be used. Additionally, rainwater catchment barrels would be installed for each new single-family unit to collect and store rainwater for land and garden watering.

Building Architecture and Design

The proposed single-family detached residential buildings would be similar to each other in height, style, scale, and mass. The residences would each be two stories in height and would range between 2,225 and 3,396 square feet in size (including the square footage of the ADUs on four of the lots). Four different floor plans and architectural styles would be proposed. The architectural style of the residences would consist of two different layouts with a Cottage theme and two layouts in a thematic French style. Architectural details for the Cottage style residences would include flat concrete tiled roofing, stucco finish, cementitious board and batt siding, decorative shutters, and enhanced sills. Generally, the French style residences would include the same architectural details as the Cottage style, although they would include stone veneer as opposed to the cementitious board and batt siding. The proposed project would not include street lights, although the proposed residences would have external lighting to illuminate yards and driveways.

Utilities

Utility services to the project site, including water, sanitary sewer, storm drain, fire protection, and police protection would be provided by the City of Hayward. Solid waste collection and recycling would be provided by Waste Management of Alameda County. Pacific Gas and Electric (PG&E) would provide gas and electric services to the project site.

To reduce stormwater flows from the project site, the entrance to the new private street off Harvey Avenue and an area in the proposed open space onsite would be paved with permeable pavers. Additionally, three stormwater bioretention areas ranging from 500 to 650 square feet in size would be placed throughout the site to capture and treat runoff. The largest bioretention area would be located on the far western side between lots six and seven and the two smaller areas would be located at the eastern project site frontage along Harvey Avenue.

Green Building Features

The proposed project would include rooftop solar photovoltaic (PV) panels on all units.

Construction and Grading

The proposed project would require the demolition of all existing structures on site, including the two existing residences. Construction and preparation of the lots would occur over approximately six months and is estimated to begin in March of 2020. Each of the 12 residences would be built upon purchase and after the prospective owner decides on the architectural style of the unit. It is anticipated that residences would be completed within 12 months, and that the proposed project would be fully operational in the fall of 2021.

9. Surrounding Land Uses and Setting

The project site is located in the Tennyson – Alquire neighborhood, which is characterized by single-family and multi-family residential buildings and commercial buildings that are one- to two stories in height with a mix of architectural styles. The suburban location consists largely of residential development constructed after World War II.

The proposed project is bordered by one- and two-story single-family residences to the north and south; the Hayward Free Methodist Church and additional two-story, single-family residences across Harvey Avenue to the east; and Ward Creek, a concrete lined engineer channel managed by the Alameda County Flood Control Agency to the west.

The project site encompasses approximately 1.83 acres on two parcels and is currently developed with two single-family residences. Additionally, each parcel has several accessory structures. The site is generally flat. Approximately 24 trees of varying size and species are dispersed across the project site and around the site boundary. There is a concrete curb, sidewalk and planting strip along the east side of the property along Harvey Avenue and two curb-cut outs which served the single-family residences that currently exist on the site.

10. Required Approvals

The following approvals and permits from the City of Hayward would be required for the proposed project:

- Tentative Tract Map
- Zone change from RS (Single-Family Residential) to PD (Planned Development)
- Other development standard exceptions related to lot size requirements (Hayward Municipal Code Section 10-1.225)
- Grading Permit
- Building Permit

11. Other Public Agencies Whose Approval is Required

The City of Hayward is the lead agency with responsibility for approving the proposed project. No other public agency's approval is required.

12. Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?

On April 4, 2019, the City of Hayward sent the Ione Band of Miwok Indians an Assembly Bill (AB) 52 notification letter via certified mail. Under AB 52, Native American tribes have 30 days to respond and request further project information and request formal consultation. The City did not receive a request for formal consultation under AB 52. Copies of AB 52 correspondence for this project are included in Appendix H.

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
■	Biological Resources	■	Cultural Resources	☐	Energy
■	Geology/Soils	☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials
☐	Hydrology/Water Quality	☐	Land Use/Planning	☐	Mineral Resources
■	Noise	☐	Population/Housing	☐	Public Services
☐	Recreation	☐	Transportation	■	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire	■	Mandatory Findings of Significance

Determination

Based on this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

■ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "less than significant with mitigation incorporated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

7/15/2019
Date

Carl Emura
Printed Name

Associate Planner
Title

Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	■
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	■
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	■	☐
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	■	☐

a. Would the project have a substantial adverse effect on a scenic vista?

A scenic vista is generally defined as an expansive view of highly valued landscape as observable from a publicly accessible vantage point. The *Hayward 2040 General Plan* characterizes the City's scenic vistas as views of natural topography, open grassland vegetation, the East Bay hills, and the San Francisco Bay shoreline. In addition, portions of Interstate 580 (I-580), Interstate 880 (I-880), and State Route 92 within the City are designated as Alameda County scenic highways (City of Hayward 2013). The project site is not part of a scenic landscape within the City and is not located within the viewshed of a County scenic highway. The project site is flat and in an urban area surrounded by development. None of the significant view areas identified in the *Hayward 2040 General Plan* are located on or near the project site. In addition, there are no scenic views or views of such features as the East Bay hills available from or through the site, due to the distance from

such features and the intervening buildings and vegetation. The proposed project would not block significant views or other scenic vistas. No impact would occur.

NO IMPACT

b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The closest designated state scenic highway is a portion of I-580 at the northern edge of the city, approximately 4.5 miles north of the project site (California Department of Transportation [Caltrans] 2011). The project site is not visible from I-580 and therefore the proposed project would not damage scenic resources within view of a state scenic highway. No impact would occur.

NO IMPACT

c. Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The project site is in an urbanized area. The project site is currently developed with two single-family residences with approximately 24 trees. Construction of the proposed project would alter the visual character of the project site by adding 12 single-family residences to the site. The proposed project would further alter the site by removing all existing trees on-site (14 trees) and planting 31 new trees throughout the project site. However, the surrounding area is developed with single-family residences similar to those proposed at the project site. The proposed project would be consistent with the height and architectural style of existing residential developments in the surrounding area.

Project entitlements include a Tentative Tract Map and a zone change for both parcels from RS (Single-Family Residential) to PD (Planned Development). The proposed project also includes a request for exceptions from two RS District development standards related to lot and yard size, including setbacks. Upon approval of the requested discretionary actions, development of the proposed project would comply with City zoning standards, including maximum height limits, yard and lot area, and front and side setbacks. Therefore, the proposed project would not conflict with applicable zoning and other regulations governing scenic quality. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

The project site is in an urbanized area with moderate levels of existing light typical of a residential neighborhood. The surrounding residential and roadway uses generate light and glare along all sides of the property. Primary sources of light adjacent to the project site include interior and exterior lighting associated with the existing residential and commercial buildings, vehicle headlights, and street lights. The primary source of glare adjacent to the project site is the sun's reflection from metallic, glass and light-colored surfaces on buildings and on vehicles parked on adjacent streets and in adjacent parking areas.

The proposed project would introduce additional sources of lighting and glare as the project site is currently only developed with two single-family residences. The proposed project would not include street lights on the private roadways, but the residences would have exterior lighting to illuminate driveways and yards. The proposed project would also introduce light and glare from headlights from vehicles entering and exiting the project driveway on Harvey Avenue. Sources of glare associated with the project site include vehicles parked in driveways or in the designated street parking spaces. These sources of light and glare would be similar to existing sources surrounding the site and would be consistent with other uses in the area. No highly-reflective glass or metallic elements are proposed as part of the proposed project. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

This page intentionally left blank.

2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	■
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	■
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))?	☐	☐	☐	■
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	■
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?	☐	☐	☐	■

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

b. Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

c. Would the project 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))?

d. Result in the loss of forest land or conversion of forest land to non-forest use?

e. Would the project 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?

The project site is located in an urbanized area of Hayward. The site is designated as LDR (Low Density Residential) in the City's General Plan and zoned RS (Single-Family Residential). Neither the project site nor adjacent properties are identified as any of the farmland types under the Farmland Mapping and Monitoring Program or enrolled in Williamson Act contracts, or support forest land or resources (California Department of Conservation [DOC] 2016). The project site is not located on or adjacent to agricultural land or forest land and the project would not involve development that could result in the conversion of farmland to non-agricultural uses. For these reasons, the proposed project would have no impact with respect to conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; conflict with existing agricultural zoning or Williamson Act contract; result in the loss of forest land or conversion of forest land to non-forest use; or other conversion of farmland to non-agricultural use.

NO IMPACT

3 Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	■	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	■	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	■	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	■	☐

Air Quality Standards and Attainment

The project site is located within the San Francisco Bay Area Air Basin (the Basin), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). As the local air quality management agency, BAAQMD is required to monitor air pollutant levels to ensure that state and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards.

Depending on whether or not the standards are met or exceeded, the Basin is classified as being in "attainment" or "nonattainment." Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. BAAQMD is in non-attainment for the state and federal ozone standards, the state and federal $PM_{2.5}$ (particulate matter up to 2.5 microns in size) standards and the state PM_{10} (particulate matter up to 10 microns in size) standards and is required to prepare a plan for improvement (BAAQMD 2017a).

The health effects associated with criteria pollutants for which the Basin is in non-attainment are described in Table 2.

Table 2 Health Effects Associated with Non-Attainment Criteria Pollutants

Pollutant	Adverse Effects
Ozone	(1) Short-term exposures: (a) pulmonary function decrements and localized lung edema in humans and animals and (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage.
Suspended particulate matter (PM_{10})	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma).[a]
Suspended particulate matter ($PM_{2.5}$)	(1) Excess deaths from short- and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes, including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children, such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease, including asthma.[a]

[a] More detailed discussions on the health effects associated with exposure to suspended particulate matter can be found in the following documents: EPA, Air Quality Criteria for Particulate Matter, October 2004.

Source: U.S. EPA, http://www.epa.gov/airquality/urbanair/

Air Quality Management

The Bay Area 2017 Clean Air Plan (the 2017 Plan) provides a plan to improve Bay Area air quality and protect public health as well as the climate. The legal impetus for the Plan is to update the most recent ozone plan, the 2010 Clean Air Plan, to comply with state air quality planning requirements as codified in the California Health & Safety Code. Although steady progress in reducing ozone levels in the Bay Area has been made, the region continues to be designated as non-attainment for both the one-hour and eight-hour state ozone standards as noted previously. In addition, emissions of ozone precursors in the Bay Area contribute to air quality problems in neighboring air basins. Under these circumstances, state law requires the 2017 Plan to include all feasible measures to reduce emissions of ozone precursors and reduce transport of ozone precursors to neighboring air basins (BAAQMD 2017b).

In 2006, the U.S. Environmental Protection Agency (USEPA) reduced the national 24-hour $PM_{2.5}$ standard regarding short-term exposure to fine particulate matter from 65 µg/m^3 (micro-grams per cubic meter) to 35 µg/m^3. Based on air quality monitoring data for years 2006-2008 showing that the region was slightly above the standard, USEPA designated the Bay Area as non-attainment for the 24-hour national standard in December 2008. This triggered the requirement for the Bay Area to prepare a State Implementation Plan (SIP) submittal to demonstrate how the region would attain the standard. However, data for both the 2008-2010 and the 2009-2011 cycles showed that Bay Area $PM_{2.5}$ levels currently meet the standard. On October 29, 2012, the USEPA issued a proposed rule-making to determine that the Bay Area now attains the 24-hour $PM_{2.5}$ national standard. Based on this, the Bay Area is required to prepare an abbreviated SIP submittal which includes an emission inventory for primary (directly-emitted) $PM_{2.5}$, as well as precursor pollutants that contribute to formation of secondary PM in the atmosphere; and amendments to BAAQMD New Source Review

(NSR) to address $PM_{2.5}$ (adopted December 2012).[1] However, key SIP requirements to demonstrate how a region will achieve the standard (*i.e*., the requirement to develop a plan to attain the standard) will be suspended as long as monitoring data continues to show that the Bay Area attains the standard.

In addition to preparing the "abbreviated" SIP submittal, BAAQMD has prepared a report entitled "Understanding Particulate Matter: Protecting Public Health in the San Francisco Bay Area" (BAAQMD 2012). The report will help to guide the BAAQMD's on-going efforts to analyze and reduce PM in the Bay Area in order to better protect public health. The Bay Area will continue to be designated as "non-attainment" for the national 24-hour $PM_{2.5}$ standard until such time as the Air District elects to submit a "redesignation request" and a "maintenance plan" to the U.S. EPA, and the U.S. EPA approves the proposed redesignation.

Air Emission Thresholds

In May 2017, CEQA Air Quality Guidelines BAAQMD has developed screening criteria to provide lead agencies and project applicants with a conservative indication of whether a project could result in potentially significant air quality impacts. If all of the screening criteria are met by a project, then the lead agency or applicant would not need to perform a detailed air quality assessment of their project's air pollutant emissions. These screening levels are generally representative of new development on greenfield sites without any form of mitigation measures taken into consideration. For projects that are infill, such as the proposed project, emissions would be less than the greenfield-type project on which the screening criteria are based (BAAQMD 2017c).

For single-family residences, BAAQMD's operational criteria pollutant screening size is 325 dwelling units and the construction-related screening size is 114 dwelling units. The proposed project involves 12 dwelling units and is well below the screening criteria. According to BAAQMD, if all of the screening criteria are met by a proposed project, then the lead agency or applicant would not need to perform a detailed air quality assessment of their project's air pollutant emissions. However, if a project includes demolition of existing structures on-site, the screening criteria should not be used for construction emissions (BAAQMD 2017c). The proposed project involves the demolition of the two existing residences and associated structures on the project site. Construction and operational emissions associated with the project were quantified using the California Emissions Estimator Model (CalEEMod) version 2016.3.2. Complete CalEEMod results and assumptions are provided in Appendix B.

BAAQMD provides numeric thresholds for criteria pollutants for projects that exceed the screening criteria described above or for projects where the screening criteria do not apply. This analysis uses BAAQMD's May 2017 CEQA Air Quality Guidelines to evaluate air quality impacts for construction and operation. Table 3 presents the numeric significance thresholds for construction and operational-related criteria air pollutant and precursor emissions in the May 2017 BAAQMD CEQA Air Quality Thresholds. These represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the Basin's existing air quality conditions. For the purposes of this analysis, the proposed project would result in a significant impact if emissions would exceed the thresholds shown in Table 3.

[1] PM is made up of particles that are emitted directly, such as soot and fugitive dust, as well as secondary particles that are formed in the atmosphere from chemical reactions involving precursor pollutants such as oxides of nitrogen (NO_x), sulfur oxides (SO_x), volatile organic compounds (VOCs), and ammonia (NH_3).

Table 3 Air Quality Thresholds of Significance

Pollutant/ Precursor	Construction-Related Thresholds	Operation-Related Thresholds	
	Average Daily Emissions (pounds per day)	Maximum Annual Emissions (tpy)	Average Daily Emissions (lbs/day)
ROG	54	10	54
NO_X	54	10	54
PM_{10}	82 (exhaust)	15	82
$PM_{2.5}$	54 (exhaust)	10	54

Notes: tpy = tons per year; lbs/day = pounds per day; ROG = reactive organic gases; NO_X = oxides of nitrogen; $PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM_{10} = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less

Source: Table 2-1, Bay Area Air Quality Management District, CEQA Air Quality Guidelines, May 2017

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

Vehicle use, energy consumption, and associated air pollutant emissions are directly related to population and housing growth. A project may be inconsistent with the applicable air quality plan if it would result in population, housing, or employment growth that exceeds growth estimates included in the plan. Such growth would generate emissions not accounted for in the applicable air quality plan emissions budget. Therefore, projects need to be evaluated to determine whether they would generate population, housing, or employment growth and, if so, whether that growth would exceed the growth rates included in the applicable air quality plan. The most recent and applicable adopted air quality plan is the 2017 Clean Air Plan. Therefore, the proposed project would result in a significant impact if it would conflict with or obstruct implementation of the 2017 Plan.

BAAQMD uses the Association of Bay Area Government's (ABAG) growth forecast. The latest ABAG projections do not include a population forecast but do provide a housing forecast. ABAG estimates that the number of housing units in the city in 2040 will be 54,300 (ABAG 2017a). The California Department of Finance (DOF) estimates the City currently has 49,913 housing units (DOF 2018). Therefore, the addition of 12 housing units associated with the proposed project would bring the City's total housing units to 49,925. The housing growth associated with the project is well within ABAG projections and therefore also within the 2017 Plan projections.

Further, as discussed in responses to question (b) below, the project not would exceed BAAQMD significance thresholds related to air quality. Therefore, the proposed project would not conflict with or obstruct the implementation of an applicable air quality plan. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The proposed project would result in temporary construction emissions and long-term operational emissions. Construction activities such as the operation of construction vehicles and equipment over unpaved areas, grading, trenching, and disturbance of stockpiled soils have the potential to

generate fugitive dust (PM_{10}) through the exposure of soil to wind erosion and dust entrainment. In addition, exhaust emissions associated with heavy construction equipment would potentially degrade regional air quality. Long-term emissions associated with operational impacts would include emissions from vehicle trips (mobile sources), natural gas and electricity use (energy sources), and landscape maintenance equipment, consumer products, and architectural coating associated with on-site development (area sources).

Construction Emissions

As described in the project description, construction would occur over approximately 18 months. Table 4 summarizes the estimated maximum daily emissions of pollutants during construction on the project site. As shown in the table, the BAAQMD thresholds would not be exceeded. Therefore, impacts would be less than significant.

Table 4 Construction Emissions

	Emissions (lbs/day)					
Year	ROG	NO_X	CO	PM_{10} (exhaust)	$PM_{2.5}$ (exhaust)	SO_X
Maximum Daily Emissions	4.2	21.1	15.2	1.2	1.1	<0.1
BAAQMD Thresholds (average daily emissions)	54	54	N/A	82	54	N/A
Threshold Exceeded?	No	No	N/A	No	No	N/A

See Table 2.1 "Overall Construction-Unmitigated" emissions. CalEEMod worksheets in Appendix B; emission data presented is the highest of winter or summer outputs.

N/A = not applicable; lbs/day = pounds per day; ROG = reactive organic gases; NO_X = oxides of nitrogen; CO = Carbon Monoxide; $PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM_{10} = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; SO_x = oxides of sulfur.

No BAAQMD threshold for CO or SO_X

Long-Term Emissions

As shown in Table 5, operational emissions would not exceed BAAQMD thresholds for any criteria pollutant.[2] Operational impacts would be less than significant.

[2] The proposed solar panels were not included in the air quality modelling. Therefore, this analysis presents a conservative estimate of daily emissions due to energy use.

Table 5 Operational Emissions

Sources	Emissions (lbs/day)					
	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$	SO_X
Average Daily Emissions						
Area	13.0	0.3	17.1	2.3	2.3	<0.1
Energy	<0.1	0.1	0.1	<0.1	<0.1	<0.1
Mobile	0.2	1.3	2.2	0.6	0.2	<0.1
Total Emissions	**13.2**	**1.6**	**19.3**	**2.9**	**2.5**	**<0.1**
BAAQMD Thresholds	54	54	N/A	82	54	N/A
Threshold Exceeded?	No	No	N/A	No	No	N/A

See Appendix B for CalEEMod worksheets; emission data presented is the highest of winter or summer outputs

N/A = not applicable; lbs/day = pounds per day; ROG = reactive organic gases; NO_X = oxides of nitrogen; CO = Carbon Monoxide; $PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM_{10} = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; SO_x = oxides of sulfur.

No BAAQMD threshold for CO or SO_X,

Note: numbers may not add up due to rounding

Construction and operational emissions would not exceed BAAQMD thresholds for any criteria pollutant and would comply with BAAQMD criteria pollutant thresholds. The proposed project would not result in individually or cumulatively significant impacts to air quality. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

The California Air Resources Board (CARB) has identified diesel particulate matter as the primary airborne carcinogen in the state (CARB 2014). A primary source of diesel particulate matter is exhaust from vehicle traffic on highways. In addition, BAAQMD recommends analyzing permitted stationary sources. In order to assess potential exposure to TACs for new residents near highways and stationary sources, the BAAQMD recommends a risk and hazard screening using BAAQMD's screening tools if the project would subject residents to an excess cancer risk level.

The proposed project does not include construction of new highways or roads which could be considered a new permitted or non-permitted source of TAC or $PM_{2.5}$ in proximity to receptors. In addition, the proposed project is not within 1,000 feet of any major roadways with an average daily traffic volume of 10,000 vehicles per day or that could be considered a permitted source of TAC or PM 2.5. Therefore, the proposed project would not place new residents in the proximity to a source of permitted or non-permitted source of pollutant concentrations. Therefore, impacts under this criterion would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Table 3-3 in the BAAQMD's 2017 CEQA Guidelines provides odor screening distances for land uses that have the potential to generate substantial odor complaints. The uses in the table include wastewater treatment plants, landfills or transfer stations, refineries, composting facilities, confined animal facilities, food manufacturing, smelting plants, and chemical plants (BAAQMD 2017c). The proposed project involves residential uses. None of the uses identified in the table would occur with the project. The proposed project would not generate objectionable odors affecting a substantial number of people during operation.

During construction activities, heavy equipment and vehicles would emit odors associated with vehicle and engine exhaust and during idling. However, these odors would be temporary and would cease upon completion. Overall, the proposed project would not generate objectionable odors affecting a substantial number of people. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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4 Biological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 or U.S. Fish and Wildlife Service?	☐	■	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	■
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	■
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	■
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	■	☐	☐
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?	☐	☐	☐	■

Existing Setting

Topography on the project site is generally flat and ranges in elevation from approximately 10 to 20 feet above mean sea level. The site is enclosed by chain link fencing on three sides, with a wooden fence bordering the frontage of the property located at 28571 Harvey Avenue. The site is bordered to the west by Ward Creek, a channelized creek with concrete walls and gravel access roads on either side. The project site is developed with two single family residences. Each residence has several accessory structures on the eastern half of the lots, and large open yards to the west. Information contained in this section comes from background literature, resource agency database reviews, and a biological reconnaissance survey of the project site conducted on April 4, 2019 by Rincon biologist Samantha Kehr.

The majority of the site consists of ruderal vegetation, ornamental trees, and non-native annual grasses. Non-native annual grassland communities observed in the project site are dominated by weedy herbaceous plants such as wild oats (*Avena* spp.), ripgut brome (*Bromus diandrus*), common beet (*Beta vulgaris*), bull mallow (*Malva nicaeensis*), melilotus (*Melilotus indicus*), cut-leaf geranium (*Geranium dissectum*), mustards (*Brassica* spp.), and wild radish (*Raphanus sativus*). Escaped or remnant ornamentals include English ivy (*Hedera helix*), California poppy (*Eschscholzia californica*) and common barley (*Hordeum vulgare*).

In the developed areas, landscaped species such as cabbage palm, fruitless mulberry, and apple (*Malus domestica*) are dominant, with non-native grasses and forbs in the understory.

Regulatory Setting

Federal and State

Regulatory authority over biological resources is shared by federal, state, and local agencies under a variety of laws, ordinances, regulations, and statutes. Primary authority for biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, the City of Hayward).

The California Department of Fish and Wildlife (CDFW) is a trustee agency for biological resources throughout the State under the California Environmental Quality Act (CEQA) and has direct jurisdiction under the California Fish and Game Code (CFGC). Under the California Endangered Species Act (CESA) and the federal Endangered Species Act (FESA), the CDFW and the U.S. Fish and Wildlife Service (USFWS), respectively, have direct regulatory authority over species formally listed as threatened or endangered (and listed as rare for CDFW). Native and/or migratory bird species are protected under the CFGC Sections 3503, 3503.5, and 3511.

Statutes within the Clean Water Act (CWA), CFGC, and California Code of Regulations (CCR) protect wetlands and riparian habitat. The U.S. Army Corps of Engineers (USACE) has regulatory authority over wetlands and waters of the United States under Section 404 of the CWA. The State Water Resources Control Board and the nine Regional Water Quality Control Boards (RWQCBs) ensure water quality protection in California pursuant to Section 401 of the CWA and Section 13263 of the Porter-Cologne Water Quality Control Act. The CDFW regulates waters of the State under the CFGC Section 1600 et seq.

Special status species are those plants and animals: 1) listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS and the National Marine Fisheries Service (NMFS) under the FESA; 2) listed or proposed for listing as Rare, Threatened, or Endangered by the CDFW under the CESA; 3) recognized as California Species of Special Concern (CSSC) by the CDFW; 4)

afforded protection under MBTA or CFGC; and 5) occurring on Lists 1 and 2 of the CDFW California Rare Plant Rank (CRPR) system.

City of Hayward

The City of Hayward Municipal Code (HMC) Chapter 10, Article 15, Tree Preservation, requires a permit for the removal, destruction, or cutting of branches over one inch in diameter, or disfigurement of any Protected Tree. It also requires that all removed or disfigured trees be replaced with like-size, like-kind trees or equivalent value of trees as determined by the City's landscape architect. Protected Trees are defined as:

- Trees having a minimum trunk diameter of eight inches measured 54" above the ground. When measuring a multi-trunk tree, the diameters of the largest three trunks shall be added together.
- Street trees or other required 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 diameter trunk size:
  - Big Leaf Maple (*Acer macrophyllum*)
  - California Buckeye (*Aesculus californica*)
  - Madrone (Arbutus menziesii)
  - Western Dogwood (*Cornus nuttallii*)
  - California 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*)
- A tree or trees of any size planted as a replacement for a Protected Tree.

Additional conditions of approval under the HMC may include, but are not limited to:

- Monitoring of all pruning (including roots), trimming or relocation of Protected Trees by a certified arborist.
- Root zone protection measures including non-movable fencing to establish and maintain protection zones prior to and through completion of construction.
- Maintenance of Protected Trees throughout construction.

Methods

Literature Review

Rincon Consultants, Inc. (Rincon) biologists reviewed agency databases and relevant literature for baseline information on special status species and other sensitive biological resources occurring or potentially occurring at the project site and in the immediate surrounding area. The following sources were reviewed for background information:

- CDFW California Natural Diversity Data Base (CNDDB) (CDFW 2019a) and Biogeographic Information and Observation System (BIOS) (CDFW 2019b)
- CDFW Special Animals List (CDFW 2018) and Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2019c)
- CNPS Online Inventory of Rare and Endangered Plants of California (CNPS 2019)
- USFWS Information for Planning and Consultation (IPaC; USFWS 2019a)
- USFWS Critical Habitat Portal (USFWS 2019b)
- USFWS National Wetlands Inventory (NWI; USFWS 2019c)

Rincon biologists conducted a review of the CNDDB (CDFW 2019a) for recorded occurrences of special status plant and wildlife taxa in the region prior to conducting a reconnaissance-level field survey. For this review, the search included all occurrences within the United States Geological Survey (USGS) 7.5-minute topographic quadrangle encompassing the project site (*Hayward*), and the eight surrounding quadrangles (*Oakland East, Las Trampas Ridge, Dioblo, San Leandro, Dublin, Redwood Point, Newark,* and *Niles*). Strictly marine, estuarine, and aquatic species were excluded from further analysis given the upland terrestrial nature of the project site. Plant species with specific habitat requirements not present at the site such as vernal pools, alkali or serpentine soils, or higher elevation ranges were also excluded from this analysis.

Rincon compiled the results of the background literature review into a list of regionally occurring special status plants and animals and evaluated each species for potential to occur based on habitat conditions and proximity to known occurrences. Rincon also reviewed the NWI (USFWS 2019c) and the National Hydrography Datasets (USGS 2019) for potential aquatic resources, including jurisdictional waters of the United States or waters of the State.

The arborist report prepared by HortScience, Inc. (Appendix A) evaluated 24 trees (10 off-site), representing 11 species, the majority of which were typical of those found in Bay Area landscapes, such as Cabbage palm (*Cordyline australis*), glossy privet (*Ligustrum lucidum*), mulberry (*Morus sp.*), and several other ornamental and fruit tree species (HortScience, Inc. 2018).

Biological Survey

On April 4, 2019, Rincon conducted a reconnaissance-level survey of the project site to document site conditions, assess the presence of on-site habitat, and evaluate the potential for special status species and other sensitive biological resources to occur on the project site.

a. Would the project 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 or U.S. Fish and Wildlife Service?

Special Status Plants

A review of agency databases for known special status plant occurrences within the nine USGS quadrangles containing and surrounding the project site identified 70 special status plant species (CDFW 2019a; CNPS 2019; USFWS 2019a). All of the reported species have specific habitat requirements including such factors as soil type, elevation and aspect among others. The highly disturbed existing conditions on site and the lack of appropriate soils and native vegetation communities on the site preclude the potential for rare plants to occur on the site. Rincon biologists determined that no special status species have potential to occur within or adjacent to the project site.

Special Status Wildlife

The review of the resource agency databases for known special status animal occurrences within the nine USGS quadrangles containing and surrounding the project site identified 83 special status animal species (CDFW 2019a; USFWS 2019a). This list was reviewed and refined according to the potential for species to occur on the project site based on the presence and quality of habitats within the project site. The site is highly disturbed, predominantly ruderal and includes buildings, and paved areas. Patches of non-native annual grassland are regularly disturbed (mowing and human activity) and other vegetation is limited to ornamental plantings. The site has no natural or native vegetation communities that would support special status animal species. For those select few special status species that can occur in disturbed or ruderal areas (such as burrowing owl), the site is sufficiently isolated from existing natural areas, and surrounded with urban residential, commercial and transportation development, that access to the site is significantly restricted. The site is not considered viable to support federal or state listed species or other special status animals except for bats.

The project site includes several uninhabited structures and old sheds behind the existing residences. These structures may present suitable habitat for pallid bat (*Antrozous pallidus*) Townsend's big-eared bat (*Corynorhinus townsendii*), and western mastiff bat (*Eumops perotis californicus*). No sign of bat colonies on the project site were documented during the biological survey; however, individuals could be present without leaving observable sign. If bat species are present on the project site, construction activities such as building demolition or tree removal could result in impacts to special status bats. Impacts to these species may be considered significant under CEQA and mitigation, as described below, is required.

Although vegetation communities observed in the project site are primarily non-native, ornamental, and/or disturbed, the site could be used by numerous species of migratory birds that utilize sparse ground cover or ornamental shrubs and landscaping as nesting habitat. Native bird nests are protected by CFGC Section 3503. Migratory nesting birds that could nest within this type of habitat and were observed on site include western scrub jay (*Aphelocoma californica*) and Anna's hummingbird (*Calypte anna*). Many other species are expected to occur in the area, and may nest in the project site, including American crow (*Corvus brachyrhynchos*), house finch (*Haemorhous mexicanus*), and American robin (*Turdus migratorius*). The nesting season generally extends from February 1st through August 31st in California but can vary based upon annual climatic conditions.

Thus, construction activities could result in the direct take of birds or their nests during vegetation removal, or disturbance related nest abandonment. Impacts to most bird species through nest destruction or abandonment is not considered significant under CEQA; however, this would be a violation of CFGC code. Impacts to special status birds may be considered significant under CEQA.

Mitigation Measures

The following mitigation measure would be required to avoid or reduce the proposed project's potentially significant impacts to nesting birds and special status wildlife.

BIO-1 Nesting Bird Avoidance and Minimization Efforts

If project construction activities occur during the nesting season (between February 1st and August 31st) a qualified biologist shall conduct a pre-construction survey for nesting birds no more than 14 days prior to construction. The survey shall include the entire project site and a 300-foot buffer to account for nesting raptors. If nests are found the qualified biologist shall establish an appropriate species-specific avoidance buffer of sufficient size to prevent disturbance by project activity to the nest (up to 300 feet for raptors, up to 150 feet for all other birds). The qualified biologist shall perform at least two hours of pre-construction monitoring of the nest to characterize "typical" bird behavior.

During construction, active nests identified during the preconstruction survey shall be monitored by the qualified biologist to determine if construction activities are causing any disturbance to the bird and shall increase the buffer if it is determined the birds are showing signs of unusual or distressed behavior associated with project activities. Atypical nesting behaviors that may cause nest abandonment include, but are not limited to, defensive flights, vocalizations directed towards project personnel/activities, standing up from a brooding position, and flying away from the nest. The qualified biologist shall have authority, through the resident engineer, to order the cessation of all project activities if the nesting birds exhibit atypical behavior that may cause nest failure (nest abandonment and loss of eggs and/or young) until a refined appropriate buffer is established. To prevent encroachment, the established buffer(s) should be clearly marked by high visibility material. The established buffer(s) should remain in effect until the young have fledged or the nest has been abandoned as confirmed by the qualified biologist. The monitoring biologist, in consultation with the resident engineer and project manager shall determine the appropriate protection for active nests on a case by case basis using the criteria described above. The qualified biologist shall prepare a nest monitoring report at the time monitoring has been completed. The report will document the methods and results of the monitoring, and the final status of the nest (i.e., successful fledging of the nest, nest depredation, nest failure due to construction activity).

BIO-2 Special-status Bat Species Avoidance and Minimization

Focused surveys to determine the presence/absence of roosting bats shall be conducted prior to the initiation of demolition of buildings and removal of mature trees large enough to contain crevices and hollows that could support bat roosting. If active maternity roosts are identified, a qualified biologist shall establish avoidance buffers applicable to the species, the roost location and exposure, and the proposed construction activity in the area. If active non-maternity day or night roosts are found on the project site, measures shall be implemented to passively relocate bats from the roosts prior to the onset of construction activities. Such measures may include removal of roosting site during the time of day the roost is unoccupied or the installation of one-way doors, allowing the bats to leave the roost but not to re-enter.

Significance After Mitigation

Implementation of mitigation measures BIO-1 and BIO-2 would ensure protection of nesting birds and special-status bat species that may be on-site during construction activities. These measures would reduce the potentially significant impact to special-status species to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Based on a review of information on biological resources within the project region and data collected during the reconnaissance site visit, no riparian habitats or sensitive natural communities are present in the project area. No impacts would occur as a result of project activities.

NO IMPACT

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Based on a review of information on biological resources within the project region and data collected during the reconnaissance site visit, no vegetated wetlands or potentially jurisdictional features occur within the project area. Ward Creek, which runs adjacent to the project site (approximately 40 feet to the west), is classified by the NWI as an intermittent riverine wetland (USFWS 2019c). The creek is a concrete lined flood control channel and is seasonally flooded with surface water early in the rainy season, but mostly dry by mid-summer. The proposed project would take place entirely outside of the riverine feature, and would not involve direct removal, filling, or hydrological interruption. No impacts to jurisdictional wetlands or waters would occur.

NO IMPACT

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The project area consists of developed and disturbed areas with primarily ornamental vegetation and weedy species dispersed throughout. Land use in the vicinity is primarily residential with no connectivity to natural habitats and is therefore not expected to support wildlife movement. No impacts to wildlife movement corridors would occur as a result of project activities.

NO IMPACT

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Under regulatory setting, HMC Chapter 10, Article 15, Tree Preservation, requires a permit for the removal, destruction, or cutting of branches over one inch in diameter, or disfigurement of any Protected Tree, among other requirements. An arborist report was prepared in October 2017 and updated in October 2018 for submission to the City in support of an application for a tree removal/pruning permit (HortScience, Inc., 2018, see Appendix A of this report). Of the 24 trees

assessed in the report (including 10 off-site trees), 21 of the trees qualified as Protected Trees, including 13 on-site and 7 of the off-site trees. The proposed project would involve the removal of all 14 on-site trees, nine of which qualified as Protected Trees according to the arborist report. All ten of the off-site trees evaluated in the arborist report would be preserved, including seven Protected Trees according to the preliminary development plan, existing conditions and demolition plan (Carlson, Barbee & Gibson, Inc., January 2019). As shown in Table 6, the proposed project would involve the removal of 13 Protected Trees. The total estimated value of the 14 trees to be removed is $12,800 (HortScience, Inc. 2018).

Table 6 Location and Number of Trees to be Removed and Preserved

	On-site	Off-site Adjacent (with Canopy On-site)	Total
Existing Number of Trees	14	10	**24**
Existing Number of Protected Trees	13	7	**21**
Number of Trees Removed	14	0	**14**
Number of Protected Trees Removed	13	0	**13**
Number of Trees Preserved	0	10	**10**
Number of Protected Trees Preserved	0	7	**7**

The current Preliminary Landscape Plan (Ripley Design Group, January 2019) includes planting of 31 new trees and proposed mitigation in the form of design improvements including the use of permeable paving and larger replacement trees and shrubs for a total proposed mitigation cost of $18,812.40. This meets the HMC requirement for replacement with an equal value tree or trees as those trees planned for removal. Therefore, the proposed project would not conflict with Chapter 10, Article 15, Tree Preservation of the HMC. However, as the arborist report notes, the goal of tree preservation is not merely tree survival during construction but maintenance of tree health over many years. Trees retained on or adjacent to the project site that are injured during construction or are inadequately maintained may decline or die. Measures to protect trees during and after construction are required to ensure long-term health and sustainability of preserved and replacement trees. Mitigation measures BIO-3 and BIO-4 are required to reduce impacts to less than significant.

Mitigation Measures

The following mitigation measures would be required to ensure the proposed project is consistent with the tree preservation requirements included in HMC Chapter 10, Article 15, Tree Preservation. The following measures would help to reduce impacts to trees from development and maintain and improve their health and vitality over time. With implementation of the measures below, the proposed project would not conflict with a local or regional ordinance.

BIO-3 Tree Preservation Measures

As outlined in the arborist report (HortScience Inc. 2018), Tree Preservation measures are required to protect trees that will be preserved in place and replacement trees that will be planted as required by HMC Chapter 10, Article 15.

DESIGN MEASURES

1. Verify the location and tag numbers of all trees. Include trunk locations and tag numbers on all plans.
2. Establish the vertical and horizontal elevations of any trees that may be preserved. Overlay tree locations with site, grading, utility, etc. plans to determine which trees may be preserved and protected.
3. Allow the Project Arborist the opportunity to review project plans, including, but not limited to, site, grading, drainage, and landscape plans
4. Use only herbicides safe for use around trees and labeled for that use, even below pavement.
5. Design irrigation systems so that no trenching will occur within the Tree Protection Zone.

PRE-CONSTRUCTION AND DEMOLITION MEASURES

1. Prepare a site work plan which identifies access and haul routes, construction trailer and storage areas, etc.
2. Establish a Tree Protection Zone around each tree to be preserved. For design purposes, the Tree Protection Zone shall be the dripline or 25 feet from the trunk, whichever is larger. No grading, excavation, construction or storage of materials shall occur within that zone.
3. Install protection around all trees to be preserved. Use 6-foot chain link fence attached posts sunk into the ground. No entry is permitted into a Tree Protection Zone without permission of the Project Arborist.
4. Trees to be removed shall be felled so as to fall away from Tree Protection Zone and avoid pulling and breaking of roots of trees to remain. If roots are entwined, the consultant may require first severing the major woody root mass before extracting the trees or grinding the stump below ground.
5. Trees to be retained may require pruning to provide clearance and/or correct defects in structure. All pruning is to be performed by an ISA Certified Arborist or Certified Tree Worker and shall adhere to the latest editions of the ANSI Z133 and A300 standards as well as the ISA Best Management Practices for Tree Pruning. Pruning contractor shall have the C25/D61 license specification.
6. All tree work shall comply with the California Fish and Wildlife code 3503-3513 to not disturb nesting birds. To the extent feasible tree pruning and removal should be scheduled outside of the breeding season. Breeding bird surveys should be conducted prior to tree work. Qualified biologists should be involved in establishing work buffers for active nests.

TREE PROTECTION DURING CONSTRUCTION

1. Prior to beginning work, the contractors working in the vicinity of trees to be preserved are required to meet with the Project Arborist at the site to review all work procedures, access routes, storage areas and tree protection measures.
2. Any grading, construction, demolition or other work that is expected to encounter tree roots should be monitored by the Project Arborist.
3. If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Project Arborist so that appropriate treatments can be applied.

4. Fences will be erected to protect trees to be preserved. Fences are to remain until all site work has been completed. Fences may not be relocated or removed without permission of the Project Arborist.
5. Any additional tree pruning needed for clearance during construction must be performed by a qualified arborist and not by construction personnel.
6. Trees shall be irrigated, except oaks, on a schedule to be determined by the Project Arborist. Each irrigation session shall wet the soil within the Tree Protection Zone to a depth of 24 inches.

BIO-4 Tree Replacement and Maintenance

Replacement trees shall be planted with sufficient space to accommodate the mature size of the species and maintained sufficiently to ensure establishment. Preserved trees shall also be maintained to ensure the continued long-term health of the tree. Trees onsite will require monitoring and routine maintenance by a landscape specialist such as occasional pruning, fertilization, mulch, pest management, replanting and irrigation.

Significance After Mitigation

Implementation of Mitigation Measures BIO-3 and BIO-4 would ensure preservation, replacement, and maintenance of Protected Trees during and after construction activities. These measures would follow the local tree ordinance and would reduce the potentially significant impact to Protected Trees to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

f. Would the project 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, natural community conservation plans, or other similar plans that govern activities on the project site. Therefore, the proposed project would not be in conflict with a habitat conservation plan.

NO IMPACT

5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	■
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	■	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	■	☐

Regulations

The California Environmental Quality Act (CEQA) requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1) and tribal cultural resources (PRC Section 21074 [a][1][A]-[B]). A historical resource is a resource listed in, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources, or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a] [1-3]).

A resource shall be considered historically significant if it:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b]).

PRC, Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Historical and Archaeological Resources Investigation

Rincon Consultants prepared an archaeological resources study for the proposed project in April 2019; it is included as Appendix C. This study was comprised of a records search of the California Historical Resources Information System (CHRIS) at the Northwest Information Center (NWIC), a pedestrian survey, a search of the Sacred Lands File (SLF), and a review of historic aerial maps.

Rincon requested a records search of CHRIS at the NWIC, located at Sonoma State University, on April 8, 2019. The search was performed to identify previously recorded archaeological resources, as well as previously conducted cultural resources studies within the project site and a 0.8-kilometer (0.25-mile) radius surrounding it. The CHRIS search included a review of available records at the NWIC, as well as the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the Office of Historic Preservation Historic Properties Directory, the California Inventory of Historic Resources, the Archaeological Determinations of Eligibility list, and historic maps.

The NWIC responded with all relevant results on April 15, 2019 identifying three cultural resources studies conducted within a 0.25-mile radius of the project site. All three of these studies are outside the project site. No previously recorded resources are located within 0.25 miles of the project site

On April 8, 2019, Rincon contacted the Native American Heritage Commission (NAHC) and requested a search of the SLF. The NAHC emailed a response on April 9, 2019 stating that the SLF search was returned with negative results.

Rincon Archaeologist Hannah Haas, MA, RPA conducted an intensive pedestrian field survey of the project site on April 4, 2019. Ground visibility within the project site was poor due to thick vegetation. Exposed soils consisted of a brown sand and gravel aggregate. Modern structures, modern refuse, and non-native grasses and herbaceous weeds were noted throughout the project site. No archaeological resources were identified. Two structures are located on the property but are not considered historical resource by the City of Hayward.

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Two buildings over 50 years in age are located within the project site. The City of Hayward identified both as tract homes developed after 1946 and therefore considers both ineligible for qualification as a historical resource under CEQA. The City's action was based on HMC Section 10-11.050, which states that "properties developed pursuant to a tentative tract map after 1946 are exempted from obtaining historical permits." Because neither property is a historical resource, the demolition of these residences would not result in a significant impact to historical resources. No impact would occur.

NO IMPACT

b. Would the project cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?

The results of the cultural resources records search, Native American Heritage Commission, and pedestrian field survey concluded that no known archaeological resources exist within the project site. Based on this, the project site is not considered archaeologically sensitive. Nevertheless, the unanticipated discovery of archaeological resources is always a possibility during ground disturbing activities. If resources are identified during construction, impacts would be potentially significant.

Mitigation Measures

The following mitigation measure is required in the event an unanticipated discovery of cultural resources occurs during project construction.

CR-1 Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area shall be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for California Register of Historical Resources (CRHR) eligibility. If the discovery proves to be eligible for listing in the CRHR and cannot be avoided by the project, additional work such as data recovery excavation and Native American consultation and archaeological monitoring may be warranted to mitigate significant impacts to cultural resources.

Significance After Mitigation

Mitigation Measures CR-1 would ensure that cultural resources are preserved in the event they are uncovered during construction. Implementation would reduce impacts regarding disrupting cultural resources to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, existing regulations outlined in the State of California Health and Safety Code Section 7050.5 state no further disturbance may occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD must complete the inspection of the site within 48 hours of being granted access and provide recommendations as to the treatment of the remains to the landowner. With adherence to existing regulations, impacts to human remains would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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6 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	■	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	■	☐

Electricity and Natural Gas

In 2017, California used 292,039 gigawatt-hours (GWh) of electricity, of which 29 percent were from renewable resources (California Energy Commission [CEC] 2019a). California also consumed approximately 12,500 million U.S. therms (MMthm) of natural gas in 2017. The project site would be provided electricity by Pacific Gas and Electric (PG&E). Table 7 and Table 8 show the electricity and natural gas consumption by sector and total for PG&E. In 2017, PG&E provided approximately 28.2 percent of the total electricity used in California. Also, in 2017, PG&E provided approximately 37.7 percent of the total natural gas usage in California.

Table 7 Electricity Consumption in the PG&E Service Area in 2017

Agriculture and Water Pump	Commercial Building	Commercial Other	Industry	Mining and Construction	Residential	Streetlight	Total Usage
5049.7	30,446.9	4,309.6	10,409.9	1,747.3	29,920.2	340.7	82,224.3

Notes: All usage expressed in GWh

Source: CEC 2017a

Table 8 Natural Gas Consumption in PG&E Service Area in 2017

Agriculture and Water Pump	Commercial Building	Commercial Other	Industry	Mining and Construction	Residential	Total Usage
36.4	864.8	68.0	1,701.3	170.8	1,873.4	4,714.7

Notes: All usage expressed in MMthm

Source: CEC 2017b

Petroleum

In 2016, approximately 40 percent of the state's energy consumption was used for transportation activities (United States Energy Information Administration [EIA] 2019). Californians presently consume over 19 billion gallons of motor vehicle fuels per year (CEC 2019b). Though California's population and economy are expected to grow, gasoline demand is projected to decline from roughly 15.8 billion gallons in 2017 to between 12.3 billion and 12.7 billion gallons in 2030, a 20 percent to 22 percent reduction. This decline comes in response to both increasing vehicle electrification and higher fuel economy for new gasoline vehicles (CEC 2019b).

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Construction Energy Demand

During project construction, energy would be consumed in the form of petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, and vehicles used to deliver materials to the site. The proposed project would require site preparation and grading, including hauling material off-site; pavement and asphalt installation; building construction; architectural coating; and landscaping and hardscaping.

The total consumption of gasoline and diesel fuel during project construction was estimated using the assumptions and factors from CalEEMod (Appendix B). Table 9 presents the estimated construction phase energy consumption, indicating construction equipment, vendor trips, and worker trips would consume approximately 52,354 gallons of fuel over the project construction period. Construction equipment would consume an estimated 48,709 gallons of fuel; vendor and hauling trips would consume approximately 3,615 gallons of fuel; and worker trips would consume approximately 26 gallons of fuel over the combined phases of project construction.

Table 9 Estimated Fuel Consumption during Construction

Fuel Type	Gallons of Fuel	MMBtu[4]
Diesel Fuel (Construction Equipment)[1]	48,709	6,208
Diesel Fuel (Hauling & Vendor Trips)[2]	3,615	333
Other Petroleum Fuel (Worker Trips)[3]	26	3
Total	**52,354**	**6,544**

[1] Fuel demand rate for construction equipment is derived from the total hours of operation, the equipment's horse power, the equipment's load factor, and the equipment's fuel usage per horse power per hour of operation, which are all taken from CalEEMod outputs (see Appendix B), and from compression-ignition engine brake-specific fuel consumptions factors for engines between 0 to 100 horsepower and greater than 100 horsepower (U.S. EPA 2018). Fuel consumed for all construction equipment is assumed to be diesel fuel.

[2] Fuel demand rate for hauling and vendor trips (cut material imports) is derived from hauling and vendor trip number, hauling and vendor trip length, and hauling and vendor vehicle class from "Trips and VMT" Table contained in Section 3.0, *Construction Detail*, of the CalEEMod results (see Appendix B). The fuel economy for hauling and vendor trip vehicles is derived from the United States Department of Transportation (DOT 2018). Fuel consumed for all hauling trucks is assumed to be diesel fuel.

[3] The fuel economy for worker trip vehicles is derived from DOT National Transportation Statistics (24 mpg) (DOT 2018). Fuel consumed for all worker trips is assumed to be gasoline fuel.

[4] CaRFG CA-GREET 2.0 fuel specification of 109,786 Btu/gallon used to identify conversion rate for fuel energy consumption for worker trips specified above (CARB 2015). Low-sulfur Diesel CA-GREET 2.0 fuel specification of 127,464 Btu/gallon used to identify conversion rate for fuel energy consumption for construction equipment specified above (CARB 2015). Totals may not add up due to rounding.

The construction energy estimates represent a conservative estimate as the construction equipment used in each phase of construction was assumed to be operating every day of construction. Construction equipment would be maintained to all applicable standards as required, and construction activity and associated fuel consumption and energy use would be temporary and typical for construction sites. It is also reasonable to assume contractors would avoid wasteful, inefficient, and unnecessary fuel consumption during construction to reduce construction costs. Therefore, the proposed project would not involve the inefficient, wasteful, and unnecessary use of energy during construction, and the construction-phase impact related to energy consumption would be less than significant.

Operational Energy Demand

The operation of the proposed project would require energy use in the form of electricity, natural gas, and gasoline consumption. Natural gas and electricity would be used for heating and cooling systems, lighting, appliances, water use, and the overall operation of the project. Gasoline consumption would be attributed to vehicular travel from residents and guests traveling to and from the project site. The proposed project's estimated number of average daily trips is used to determine the energy consumption associated with fuel use from project operation. According to the CalEEMod calculations, the proposed project would result in 261,830 annual VMT (Appendix B). Table 10 shows the estimated total annual fuel consumption of the project using the estimated VMT with the assumed vehicle fleet mix (Appendix B).

Table 10 Estimated Project Annual Transportation Energy Consumption

Vehicle Type[1]	Percent of Vehicle Trips[2]	Annual Vehicle Miles Traveled[3]	Average Fuel Economy (miles/gallon)[4]	Total Annual Fuel Consumption (gallons)	Total Fuel Consumption (MMBtu)[5]
Passenger Cars	55.9	146,457	24.0	6,102	670
Light/Medium Trucks	34.0	89,007	17.4	5,115	562
Heavy Trucks/Other	9.5	24,914	7.4	3,367	429
Motorcycles	0.6	1,452	43.9	33	4
Total	**100.0**	**261,830**	–	**14,618**	**1,665**

[1] Vehicle classes provided in CalEEMod do not correspond exactly to vehicle classes in DOT fuel consumption data, except for motorcycles. Therefore, it was assumed that passenger cars correspond to the light-duty, short-base vehicle class, light/medium trucks correspond to the light-duty long-base vehicle class, and heavy trucks/other correspond to the single unit, 2-axle 6-tire or more class.

[2] Percent of vehicle trips from Table 4.4 "Fleet Mix" in Air Quality and Greenhouse gas Emissions Study, CalEEMod output (see Appendix B).

[3] Mitigated annual VMT found in Table 4.2 "Trip Summary Information" in Air Quality and Greenhouse Gas Emissions Study CalEEMod output (see Appendix B).

[4] Average Fuel Economy: DOT 2018.

[5] CaRFG fuel specification of 109,786 Btu/gallon used to identify conversion rate for fuel energy consumption for vehicle classes specified above (CARB 2015).

Notes: Totals may not add up due to rounding.

As shown in Table 9, the proposed project would consume approximately 14,618 gallons of fuel, or 1,665 MMBtu, each year for transportation uses from the operation under the most conservative estimate.

Operation of the proposed project would consume approximately 0.1 GWh of electricity per year (electricity use provided in the CalEEMod output of Appendix B). The proposed project's electricity demand would be served by PG&E, which provided 82,224 GWh of electricity in 2017; therefore, PG&E would have sufficient supplies for the proposed project. Estimated natural gas consumption for the proposed project would be approximately 0.005 MMthm per year (electricity use provided in the CalEEMod output of Appendix B). The proposed project's natural gas demand would be serviced by PG&E, which provided approximately 4,715 MMthm per year in 2017; therefore, PG&E would have sufficient supplies for the proposed project. Additionally, each proposed residential unit would include rooftop solar PV panels that would further off set energy consumption.

The proposed project would be required to comply with all standards set in California Building Code (CBC) Title 24, which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources during operation**.** California's Green Building Standards Code (CALGreen; California Code of Regulations, Title 24, Part 11) requires implementation of energy efficient light fixtures and building materials into the design of new construction projects. Furthermore, the 2019 Building Energy Efficiency Standards (CBC Title 24, Part 6) requires newly constructed buildings to meet energy performance standards set by the Energy Commission. These standards are specifically crafted for new buildings to result in energy efficient performance so that the buildings do not result in wasteful, inefficient, or unnecessary consumption of energy. The standards are updated every three years and each iteration is more energy efficient than the previous standards. For example, according to the CEC, residences built with the 2019 standards will use about seven percent less energy due to energy efficiency measures versus those built under the 2016 standards, or 53 percent less energy with rooftop solar, and nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades (CEC 2018). Furthermore, the proposed project would continue to reduce its use of nonrenewable energy resources as the electricity generated by renewable resources provided by PG&E continues to increase to comply with state requirements through Senate Bill 100, which requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

In conclusion, project construction would be temporary and typical of similar projects, and would not result in the wasteful, inefficient, or unnecessary consumption of energy. Project operation would involve the consumption of fuel, natural gas, and electricity; however, calculated energy consumption estimates did not deduct existing energy use from the two residences currently on the project site and therefore represent a highly conservative estimate. The proposed project's energy usage would be in conformance with the latest version of California's Green Building Standards Code and the Building Energy Efficiency Standards. In addition, PG&E has sufficient supplies to serve the project and the proposed project would include rooftop solar PV panels that would further off set energy consumption. Therefore, the proposed project would have a less than significant impact.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

As mentioned above, SB 100 mandates 100 percent clean electricity for California by 2045. Because the proposed project would be powered by the existing electricity grid, the proposed project would eventually be powered by renewable energy mandated by SB 100 and would not conflict with this statewide plan. Additionally, Hayward's Climate Action Plan (CAP) contains emissions-reduction measures the City may implement, several of which are energy-related in nature. The CAP is a

voluntary planning study undertaken by the City to quantify emissions through an inventory analysis and forecast and to generate possible measures the City could take in the future. The CAP was adopted by the City Council on July 28, 2009 and incorporated into the City's General Plan in 2014. Therefore, the CAP contains mandatory measures and amendments that apply to unincorporated areas of the county (City of Hayward 2014). Therefore, the energy efficiency measures contained in the CAP are required and would be adhered to with implementation of the proposed project.

As demonstrated further in Section 8, *Greenhouse Gas Emissions*, the proposed project is consistent with measures and actions from the City's CAP. Those measures specifically pertaining to energy efficiency include NR-4.1 through NR-4.11, and NR-4.13 though NR-4.15 relating to energy performance in new construction and energy efficient design in new development. Additionally, the proposed project would include "green building" features such as installing roof solar panels on each residence to reduce energy usage. The proposed project would not interfere with the CAP's energy performance in new construction strategy or measures and would not conflict with or obstruct the state plan for renewable energy; therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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7 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	■
2. Strong seismic ground shaking?	☐	☐	■	☐
3. Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
4. Landslides?	☐	☐	☐	■
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	■	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	■	☐
d. Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	■	☐	☐
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?	☐	☐	☐	■
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	■

A Geotechnical Report for the proposed project was prepared by Silicon Valley Soil Engineering in October 2017 (Appendix D). The purpose of this investigation was to determine the nature of the surface and subsurface soil conditions at the project site through field investigations and laboratory testing. This report presents an explanation of investigative procedures, results of the testing program, conclusions regarding soil conditions, and recommendations for earthwork and foundation design to adapt the proposed development to the existing soil conditions.

a.1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

The project site is not located in an Alquist-Priolo Earthquake Fault Zone and there are no known faults crossing or projecting toward the site (DOC 2012). The nearest known fault is the Hayward Fault which is approximately 1.8 miles east of the project site. The proposed project would comply with State of California standards for building design through the CBC (California Code of Regulations, Title 24), which requires various measures of all construction in California to account for hazards from seismic shaking. Therefore, the proposed project would not directly or indirectly cause substantial adverse impacts associated with surface fault rupture. No impact would occur.

NO IMPACT

a.2. Would the project directly or indirectly cause substantial potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

The San Francisco Bay Area region is one of the most seismically active areas in the country. While seismologists cannot predict earthquake events, the USGS's Working Group on California Earthquake Probabilities (WGCEP) estimates the likelihood that California will experience a magnitude 8 or larger earthquake in the next 30 years is about 7.0 percent (WGCEP 2015). The WGCEP also estimates that each region of California will experience a magnitude 6.7 or larger earthquake in the next 30 years. Additionally, there is a 63 percent chance of at least one magnitude 6.7 or greater earthquake occurring in the Bay Area region between 2007 and 2036.

The project site is located in an area of relatively high seismic potential. The faults in the area are capable of generating earthquakes that could produce strong to violent ground shaking at the project site. The active fault nearest the site is the Hayward fault, which is located approximately 1.8 miles to the east. The effects of earthquake-related ground shaking could include damage to structures, as well as damage to streets and utilities. However, compliance with the current CBC requirements would ensure that the proposed structures would be able to: (1) resist minor earthquakes without damage; (2) resist moderate earthquakes without structural damage, but with some non-structural damage; and (3) resist major earthquakes without collapse, but with some structural as well as nonstructural damage. By adhering to State and City building code requirements, the direct or indirect impacts from development of the proposed project as they relate to strong seismic ground shaking would be less than significant.

According to the Geotechnical Report, the project site is also in a state-designated Liquefaction Hazard Zone (Appendix D). The factors known to influence liquefaction potential include grain size, relative density, groundwater conditions, effective confining pressures, and intensity and duration of ground shaking. Loose, saturated, near-surface, cohesionless soils exhibit the highest liquefaction potential, while dense, cohesionless soils and cohesive soils exhibit low to negligible liquefaction potential. However, the Geotechnical Report concluded that there is no liquefiable soil layer underlying the project site, and therefore the potential for liquefaction is minimal.

Lateral spreading and earthquake-induced landslides involve lateral ground movements caused by seismic shaking. These lateral ground movements are often associated with a weakening or failure of an embankment or soil mass overlying a layer of liquefied sands or weak soils. Due to the relatively flat site topography and lack of liquefiable material, lateral spreading is unlikely at the site (Appendix D). Therefore, impacts related to strong seismic shaking and seismic related ground failure would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

The project site and surroundings are generally level, and no steep slopes are located near the site. Therefore, there is no potential for landslides at the site. No impact would occur.

NO IMPACT

b. Would the project result in substantial soil erosion or the loss of topsoil?

Construction of the proposed project would require earthwork activities to prepare the site for the construction of 12 single-family residences. As the proposed project would disturb over one acre of land, the applicant would be required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ or 2009-0009-DWQ General Permit) to comply with Clean Water Act (CWA) National Pollutant Discharge Elimination System (NPDES) requirements. Compliance with these requirements would include preparation of a Storm Water Pollution Prevention Plan (SWPPP), which would specify Best Management Practices (BMP) to quickly contain and clean up accidental spills or leaks. In accordance with HMC Section 10-3.705, the project applicant is also required to prepare and implement an Erosion and Sediment Control Plan to prevent illicit discharge. Appropriate erosion control and permanent site surface drainage elements per the latest California Building Code would also be implemented. With required implementation of these plans, permits, and BMPs, substantial erosion or the loss of top soil would not occur at the project site. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Based on the laboratory testing results included in the Geotechnical Report (Appendix D), the native surface soil at the project site was found to have a high expansion potential when subjected to fluctuations in moisture. These soils can shrink or swell and cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations, resulting in a potentially significant impact. Nonetheless, the report concluded that from a geotechnical viewpoint, the

project is feasible provided the considerations included in Mitigation Measure GEO-1 below are addressed in the project design.

Mitigation Measure

The following mitigation measure shall be implemented prior to and during project construction:

GEO-1 Geotechnical Considerations

The project applicant shall implement all measures and recommendations set forth in the Geotechnical Report prepared by Silicon Valley Soil Engineering in October 2017 (included in Appendix D). Recommendations include but are not limited to the following topic areas:

- Grading (demolition and stripping, existing fill removal, selection of materials, differential fill thickness, fill placement)
- Excavation
- Foundation design criteria (including concrete slab-on-grade or mat slab options)
- Building code seismic design
- Retaining walls
- Drainage
- On-site utility trenching
- Pavement design

Significance After Mitigation

Implementation of Mitigation Measure GEO-1 would reduce the swell potential of the clay by compacting the soil at a high moisture content, controlling the amount of soil compaction. Impacts from expansive soil would be less than significant with implementation of mitigation.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

e. Would the project 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 proposed project would not include components that would require the use of septic tanks. The proposed project would connect to the City of Hayward municipal sewer system. There would be no impact.

NO IMPACT

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Consistent with the Society for Vertebrate Paleontology 2010 guidelines, the paleontological sensitivity of the project site is based on a literature review and museum locality search. The project site is mapped at a scale of 1:50,000 by Graymer (2000) and is immediately underlain by Holocene basin deposits (Qhb). These younger Quaternary deposits are composed of organic-rich dark clay to very fine silty-clay deposits occupying the lowest topographic positions either between the Holocene levee deposits or Holocene floodplain deposits (Helley and Graymer 1997). The basin deposits overlie Holocene alluvial fans and stream sediments, which grade into older Pleistocene

alluvium at moderate depth. A search of the paleontological locality records maintained by University of California Museum of Paleontology online database resulted in no previously recorded vertebrate fossil localities within Holocene sedimentary deposits in the project vicinity.

Holocene sedimentary deposits, particularly those younger than 5,000 years old, are generally too young to contain fossilized material. Therefore, the Holocene basin deposits mapped at the surface of the project site have been assigned a low paleontological sensitivity. The project site does not contain a unique geological feature. Therefore, ground disturbance for construction of the proposed project would not unearth paleontological resources. No impacts to paleontological resources or unique geological features would occur.

NO IMPACT

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8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	■	☐
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	■	☐

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. Climate change is the result of numerous, cumulative sources of greenhouse gases (GHGs). GHGs contribute to the "greenhouse effect," which is a natural occurrence that helps regulate the temperature of the planet. The majority of radiation from the Sun hits the Earth's surface and warms it. The surface in turn radiates heat back towards the atmosphere, known as infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping back into space and re-radiate it in all directions. This process is essential to supporting life on Earth because it warms the planet by approximately 60° Fahrenheit. Emissions from human activities since the beginning of the industrial revolution (approximately 250 years ago) are adding to the natural greenhouse effect by increasing the gases in the atmosphere that trap heat, thereby contributing to an average increase in the Earth's temperature.

Project implementation would generate GHG emissions through the burning of fossil fuels or other emissions of GHGs, thus potentially contributing to cumulative impacts related to climate change. In response to an increase in man-made GHG concentrations over the past 150 years, California has implemented Assembly Bill (AB) 32, the "California Global Warming Solutions Act of 2006." AB 32 codifies the Statewide goal of reducing emissions to 1990 levels by 2020 (essentially a 15% reduction below 2005 emission levels) and the adoption of regulations to require reporting and verification of statewide GHG emissions. Furthermore, on September 8, 2016, the governor signed Senate Bill 32 (SB 32) into law, which requires the State to further reduce GHGs to 40 percent below 1990 levels by 2030. SB 32 extends AB 32, directing CARB to ensure that GHGs are reduced to 40 percent below the 1990 level by 2030.

On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally-appropriate quantitative thresholds consistent with a statewide per capita goal of six metric tons (MT) CO_2e by 2030 and two MT CO_2e by 2050 (CARB 2017). As stated in the 2017 Scoping Plan,

these goals may be appropriate for plan-level analyses (city, county, subregional, or regional level), but not for specific individual projects because they include all emissions sectors in the State.

The vast majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15064[h][1]).

To evaluate whether a project may generate a quantity of GHG emissions that may have a significant impact on the environment, state agencies have developed a number of operational bright-line significance thresholds. Significance thresholds are numeric mass emissions thresholds that identify the level at which additional analysis of project GHG emissions is necessary. Projects that attain the significance target, with or without mitigation, would result in less than significant GHG emissions. Many significance thresholds have been developed to reflect a 90 percent capture rate tied to the 2020 reduction target established in AB 32. Numerous lead agencies (including the City of Hayward) have identified as appropriate significance screening tools for residential, commercial, industrial, and public land uses and facilities projects with horizon years before 2020.

In the 2017 BAAQMD CEQA Air Quality Guidelines, BAAQMD outlines an approach to determine the significance of projects. For residential, commercial, industrial, and public land use development projects, the thresholds of significance for operational-related GHG emissions are as follows:

- Compliance with a qualified GHG Reduction Strategy
- Annual emissions less than 1,100 metric tons (MT) per year (MT/yr) of carbon dioxide equivalent (CO_2e)
- Service person threshold of 4.6 MT CO_2e/SP/yr (residents + employees)

According to the *CEQA Guidelines*, projects can tier from a qualified GHG reduction plan, which allows for project-level evaluation of GHG emissions through the comparison of the project's consistency with the GHG reduction policies included in a qualified GHG reduction plan. This approach is considered by the Association of Environmental Professionals (AEP) in their white paper, *Beyond Newhall and 2020*, to be the most defensible approach presently available under CEQA to determine the significance of a project's GHG emissions (AEP 2016). The City of Hayward has developed a Climate Action Plan (CAP), which has been adopted as a part of the City's General Plan. This was prior to modifications to the CEQA Guidelines and adoption of guidance from BAAQMD on what qualifies as a quantified GHG reduction strategy used for tiering. Therefore, the CAP does not qualify has a GHG reduction plan and thus cannot be used for project tiering.

BAAQMD annual emissions threshold of 1,100 MT of CO_2e per year was designed to capture 90 percent of all emissions associated with projects in the Basin and require implementation of mitigation so that a considerable reduction in emissions from new projects would be achieved. According to the California Air Pollution Control Officers Association (CAPCOA) white paper, *CEQA & Climate Change*, a quantitative threshold based on a 90 percent market capture rate is generally consistent with AB 32 (CAPCOA 2008). SB 32, codified in 2016, sets a more conservative emission reduction target of 40 percent below the 1990 level by 2030. Because the previously established threshold of 1,100 MT CO_2e was not developed to meet the targets established by SB 32, it must be

adjusted to meet the new, more conservative, emission reduction target of 40 percent below the 1990 level by 2030. As BAAQMD has not published a quantified threshold for 2030 yet, this analysis uses a "Substantial Progress" bright-line threshold of 660 MT of CO_2e per year (or a 40 percent reduction of the 2020 1,100 MT CO_2e per year threshold). The bright-line threshold applies best to the proposed project as Hayward does not have a qualified GHG reduction plan and the project is not a high-density project whose impacts would be more appropriately quantified by a service population threshold to reflect the per-person emission efficiency.

a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction and operational emissions associated with the proposed project were quantified using CalEEMod version 2016.3.2. Complete CalEEMod results and assumptions are provided in Appendix B. It was assumed that construction activity would begin March 2020 with completion by the September 2021.

Construction Emissions

Construction emissions associated with the proposed project would generate temporary short-term GHG emissions during the operation of construction equipment and truck trips. GHGs would be emitted from travel to and from the worksite and from the operation of construction equipment such as graders, backhoes, and generators. Site preparation and grading typically generate the greatest amount of emissions due to the use of grading equipment and soil hauling.

Construction activity for the proposed project would generate estimated annual emissions of 413 MT CO_2e. As there is no applicable construction GHG threshold, this calculation is included for informational purposes. Nonetheless, the project applicant would be required to comply with all BAAQMD rules and regulations regarding emission control measures. Therefore, impacts related to GHG emissions will be less than significant.

Operational and Total Project Emissions

Table 11 combines the construction and operational GHG emissions associated with development of the project. As shown, annual emissions from the proposed project would be approximately 189 MT CO_2e. These emissions would not exceed the 660 MT CO_2e per year bright line threshold. Therefore, GHG emissions impacts would be less than significant.

Table 11 Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions (CO_2e in metric tons)
Operational	
Area	2
Energy	55
Solid Waste	7
Water	3
Mobile	
CO_2 and CH_4	120
N_2O	2
Total	**189**

See Appendix B for CalEEMod worksheets.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

As discussed above, the proposed 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 AB 32 and SB 32.

As stated above under Section 6, *Energy*, the proposed project would be constructed in accordance with CALGreen (Part 11 of Title 24 of the California Code of Regulations) requirements for Residential Development, which includes implementation of energy efficient light fixtures and building materials into the design of new construction projects. The project site is not within a Priority Development Area as designated in the Plan Bay Area, a regional plan designed to reduce GHG emissions through land use planning and the provision of adequate housing to meet regional needs (ABAG 2017b).

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

- 20 percent below 2005 baseline levels by 2020,
- 62.7 percent below 2005 baseline levels by 2040, and
- 82.5 percent below 2005 baseline levels by 2050.

The CAP includes GHG reduction strategies and actions relating to transportation, land use, energy, solid waste, carbon sequestration, climate change adaptation, and community engagement. The proposed project includes several design features that are consistent with strategies and actions from the City's CAP. As mentioned above, the proposed project would comply with CALGreen requirements, and would therefore, be consistent with *Strategy 4: Energy: Improve Energy Performance of New Buildings* of the City's CAP. This strategy includes community-wide actions to implement the City's Private Development Green Building Ordinance for residential buildings and CALGreen standards. The houses would include solar panels to reduce energy use and associated

GHG emissions. This is consistent with *Strategy 5: Energy: Use Renewable Energy*, which includes community-wide actions to incorporate renewable energy requirements into residential buildings.

The proposed project would support and implement some strategies contained in the City's CAP. Additionally, the project would not conflict with the Climate Change Scoping Plan developed per SB 32, the land use assumptions in the Plan Bay Area, or regulations adopted by the City of Hayward to reduce greenhouse gas emissions. Therefore, the proposed project would have a less than significant impact related to GHG emissions.

LESS THAN SIGNIFICANT IMPACT

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9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	■	☐
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?	☐	☐	■	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	■	☐
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	■
e. For a project located in 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 or excessive noise for people residing or working in the project area?	☐	☐	☐	■
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	■
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	■

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b. Would the project 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?

Construction Activities

The proposed project would involve the the construction of 12 single-family residences, paved circulation and parking areas, and landscaping. Construction activities may include the temporary transport, storage, use, or disposal of potentially hazardous materials including fuels, lubricating fluids, cleaners, solvents, or contaminated soils. If spilled, these substances could pose a risk to the environment and to human health. However, the transport, storage, use, or disposal of hazardous materials would be subject to federal, state, and local regulations pertaining to the transport, use, storage, and disposal of hazardous materials, which would assure that risks associated with hazardous materials are minimized. The transport of hazardous materials would be subject to federal, state, and local regulations, which would assure that risks associated with the transport of hazardous materials are minimized. In addition, construction activities that transport hazardous materials would be required to transport such materials along designated truck routes in the city in accordance with the City's General Plan policy HAZ-6.8, thereby limiting risk of upset (City of Hayward 2014).

Structures built before the 1970s typically used ACMs in their construction. Because the on-site structures are over 50 years in age and were constructed before the time of the federal ban on the manufacture of polychlorinated biphenyls (PCB), it is possible that light ballasts contain PCBs. However, demolition and construction activities would be required to adhere to Bay Area Air Quality Management District (BAAQMD) Regulation 11, Rule 2, which governs the proper handling and disposal of ACM for demolition, renovation, and manufacturing activities in the Bay Area, and California Occupational Safety and Health Administration (CalOSHA) regulations regarding lead-based materials. The California Code of Regulations, §1532.1, requires testing, monitoring, containment, and disposal of lead-based materials, such that exposure levels do not exceed CalOSHA standards. The California Department of Toxic Substance Control (DTSC) has classified PCBs as a hazardous waste when concentrations exceed 50 parts per million in non-liquids, and the DTSC requires that materials containing those concentrations of PCBs be transported and disposed of as hazardous waste. Light ballasts to be removed would be evaluated for the presence of PCBs and managed appropriately. With required adherence to BAAQMD, CalOSHA, and DTSC regulations regarding ACM, LBP, and PCBs impacts would be less than significant.

As the proposed project would disturb over one acre of land, the applicant would be required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ) to comply with CWA NPDES requirements. Compliance with these requirements would include preparation of a SWPPP, which would specify BMPs to quickly contain and clean up accidental spills or leaks. Therefore, the potential for an accidental release of hazardous materials to harm the public or the environment would be minor. Impacts related to hazardous materials during construction would be less than significant.

Project Operation

The proposed project would involve construction of 12 new single-family residences. Residential uses typically do not use or store large quantities of hazardous materials other than those typically used for household cleaning, maintenance, and landscaping. Therefore, the proposed project would not involve the use, storage, transportation, or disposal of hazardous materials and would not release such materials into the environment. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The project site is located approximately 775 feet (approximately 0.14 miles) east of Ruus Elementary School. As described under parts *a*. and *b*., construction activities may involve the use, storage, or transport of hazardous materials. However, the transport, use, storage, and disposal of hazardous materials associated with construction are subject to applicable federal, state, and local regulations to minimize the release of hazardous materials into the environment.

Operation of the proposed residential use would not involve the handling of hazardous materials, substances, or wastes other than those typically used for household cleaning, maintenance, and landscaping. Handling of hazardous materials is subject to applicable federal, state, and local regulations to reduce emissions of hazardous materials into the environment.

Therefore, through adherence to applicable regulations, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

California Government Code Section 65962.5 requires various state agencies to compile lists of hazardous waste disposal facilities, unauthorized release from underground storage tanks, contaminated drinking water wells, and solid waste facilities from which there is known migration of hazardous waste and submit such information to the Secretary for Environmental Protection on at least an annual basis. According to the Phase 1 Environmental Site Assessment prepared in August 2017 by B2 Environmental, Inc., the project site is not listed as a known hazardous cleanup site, does not contain a hazardous waste facility, and has no record of known contamination (Department of Toxic Substances Control 2019; B2 Environmental, Inc. [Appendix E]). No cleanup sites are located within a half-mile radius of the project site; therefore, contamination from other sites is not expected to have migrated such that the project site is affected by off-site contamination. Therefore, the proposed project would not create a significant hazard to the public or environment and there would be no impact.

NO IMPACT

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The nearest airport to the project site is the Hayward Executive Airport, located approximately three miles to the northwest. The project site is not located within the Hayward Executive Airport

Influence Area and is located outside the existing noise level contours for the airport (Alameda County Airport Land Use Commission [ALUC] 2012). The proposed project would not subject persons working at the site to safety hazards, and there would be no impact from potential air traffic safety risks.

NO IMPACT

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The City of Hayward adopted the *Local Hazard Mitigation Plan* in 2016 (City of Hayward 2016a). Construction of the proposed project would occur within the boundary of the project site and no street closures would occur. The proposed project does not involve the development of structures that could potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. No streets or property access points would be closed, rerouted, or substantially altered during or after construction. There would be no impact.

NO IMPACT

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

The project site is located in a developed urbanized area that is surrounded by residential and commercial uses and no adjacent wildlands or densely vegetated areas are located in the area that would represent a significant fire hazard. The project site is not located in a Fire Hazard Severity Zone or Very High Hazard Severity Zone for wildland fires (California Department of Forestry and Fire Protection [CalFire] 2007; 2008). Therefore, the proposed project would not expose people or structures to significant risk of loss, injury, or death involving wildland fires. There would be no impact.

NO IMPACT

10 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	■	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	■	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) Result in substantial erosion or siltation on- or off-site;	☐	☐	■	☐
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	■	☐
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	■	☐
(iv) Impede or redirect flood flows?	☐	☐	■	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	■	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	■	☐

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

c.(i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Construction Impacts

During grading activities, the project site's soils would be exposed to wind and water erosion that could transport sediments into local stormwater drainages. Also, accidental spills of fluids or fuels from construction vehicles and equipment, or miscellaneous construction materials and debris, could be mobilized and transported off-site in overland flow. These contaminant sources could degrade the water quality of receiving water bodies (i.e., San Francisco Bay), potentially resulting in a violation of water quality standards.

As part of Section 402 of the CWA, the U.S. EPA has established regulations under the National Pollution Discharge Elimination System (NPDES) program to control both construction and operation (occupancy) stormwater discharges. The federal CWA was first adopted in 1972 and is intended to protect and preserve water supply and quality in the "waters of the nation." In the Bay Area, the San Francisco Regional Water Quality Control Board (RWQCB) administers the NPDES permitting program and is responsible for developing permitting requirements. The proposed project would be subject to the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit (MRP) – NPDES Permit Order No. R2-2015-0049, and the provisions set forth in Section C.3 *New Development and Redevelopment*. Under the conditions of the permitting program, the applicant would be required to eliminate or reduce non-stormwater discharges to waters of the nation, develop and implement a SWPPP for construction activities, and perform inspections of the stormwater pollution prevention measures and control practices to ensure conformance with the site SWPPP. Because the proposed project would disturb at least one acre of land, the project must provide stormwater treatment and would be required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ or 2009-0009-DWQ General Permit).

Further, in accordance with HMC Chapter 10, Article 8 (Grading and Clearing), all grading activities must be conducted in a manner that will minimize the potential for erosion from the site. If requested by the City engineer, the project applicant would be required to prepare and implement an Erosion and Sediment Control Plan that specifies control techniques that would prevent erosion during construction. Therefore, with compliance with construction-related water quality and erosion control requirements, construction of the proposed project would not violate water quality standards, substantially alter the drainage pattern of the area such that substantial erosion or siltation would occur and would not degrade water quality. Impacts during construction would be less than significant.

Operational Impacts

The proposed project would increase the total area of impervious surfaces on the project site by approximately 36,346 square feet. Increasing the total area of impervious surfaces can result in a

greater potential to introduce pollutants to receiving waters. Urban runoff can carry a variety of pollutants, including oil and grease, metals, sediment, and pesticide residues from roadways, parking lots, rooftops, and landscaped areas depositing them into adjacent waterways via the storm drain system.

Stormwater discharge during operation is regulated by the Municipal Separate Storm Sewer System (MS4) Permit, issued by the RWQCB, pursuant to NPDES regulations. Water quality in stormwater runoff is regulated locally by the Alameda County Clean Water Program, which includes the C.3 provisions set by the San Francisco Bay RWQCB. Provision C.3 of the MRP addresses post-construction stormwater requirements for new development and redevelopment projects that add and/or replace 10,000 square feet or more of impervious area. Because the proposed project would replace in excess of 10,000 square feet of the impervious surface of the project site, it must comply with the C.3 provisions set by the RWQCB. Therefore, the proposed project must meet certain criteria including: 1) incorporate site design, source control, and stormwater treatment measures into the project design; 2) minimize the discharge of pollutants in stormwater runoff and non-stormwater discharge; and 3) minimize increases in runoff flows as compared to pre-development conditions. A Stormwater Control Plan (SCP) that details the site control, source control, and stormwater measures that would be implemented at the site must be submitted to the City. In addition, Low Impact Development (LID) requirements apply. The Alameda County Clean Water Program's C.3 Technical Guidance document (2016) provides guidance on how to meet the C.3 requirements.

The proposed project would increase the amount of impervious surfaces on the site. In accordance with the C.3 requirements, the project is designed to direct runoff from roofs and sidewalks into vegetated areas and would include landscaped bioretention areas to treat runoff before entering the stormwater system.

By adhering to the provisions of NPDES Section C.3, the SWPPP, and the stormwater control plan, the proposed project would not result in adverse effects on water quality and or in the violation of water quality standards or waste discharge requirements during construction or operation. Therefore, the proposed project would have a less than significant impact on water quality. With implementation of the measures contained in these plans, excessive stormwater runoff, substantial erosion or siltation on- or off-site would not occur and the potential for the project to violate water quality standards and substantially degrade water quality would be reduced. Additionally, the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

As discussed in Section 19, *Utilities and Service Systems*, the proposed project would receive its water from the City of Hayward. Hayward receives its water from the Hetch Hetchy system, owned and operated by the San Francisco Public Utilities Commission (SFPUC). Hayward does not currently, nor does it plan to, use groundwater to meet the City's water demand (City of Hayward 2016b). Therefore, the proposed project would not rely on groundwater for its water supply and would not increase groundwater usage such that a net deficit in aquifer volume would occur.

Development under the proposed project does not include installation of new groundwater wells or use of groundwater from existing wells. The proposed project would increase the total area of impervious surfaces on the project site by approximately 36,346 square feet. However, the construction of stormwater management bio-retention areas would allow much of the stormwater runoff from the project site to infiltrate into the ground surface and would not substantially interfere with groundwater recharge of water supply aquifers. Therefore, the proposed project would not substantially interfere with groundwater recharge. Impacts related to groundwater would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c.(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

c.(iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

c.(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

A portion on the eastern side of the project site is currently developed with two residences and accessory structures. Ward Creek, located immediately west of the project site boundary, is the nearest watercourse to the site and does not flow through the site Construction of the proposed project would not alter the course of this creek or other stream or river (no other surface water features are identified in the project area). Project runoff would maintain pre-project drainage patterns by connecting to existing storm drain facilities and would not be directed to the banks of a creek. No impacts to bank stability would occur.

The proposed project would include bio-retention basins to treat roof, sidewalk, and driveway water runoff, and permeable pavers on driveways. According to the stormwater control plan (Carlson, Barbee & Gibson, Inc. November 2017; Appendix F), the proposed project would involve an effective impervious area[3] of approximately 48,543 square feet. In accordance with Alameda County C.3 requirements (see discussion above under questions (*a, c.(i),* and *e*), the proposed project would be required to provide 1,615 square feet of treatment area. The proposed project would provide 1,750 square feet of treatment area; therefore, it is consistent with the County's C.3 requirements. Thus, the proposed project would not substantially increase stormwater discharge, substantially alter drainage patterns on-site or the surrounding area, and would not contribute runoff that would resulting in flooding on- or off-site or exceed the capacity of the existing on-site or offsite stormwater drainage system. Impacts would be less than significant.

The Federal Emergency Management Agency (FEMA) is responsible for the preparation of Flood Insurance Rate Maps (FIRMs). These maps present flood hazard, expressed as areas that are subject

[3] Effective impervious area includes all roofs, hardscapes, and streets plus 10 percent of the area that is in landscape that would drain to treatment areas.

to inundation in a storm with either a 1 percent Annual Exceedance Probability (AEP), also referred to as a 100-year flood, or a 0.2 percent AEP (500-year flood). The project site is located in Flood Zone X, which is considered an area of minimal flood hazard and is outside of FEMA designated flood zones (FEMA FIRM # 06001C0289G, effective August 3, 2009). Therefore, the proposed project is not located within a flood zone and impacts concerning flood hazards would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

As discussed above, the project site is not located within the 100-year floodplain or a FEMA-designated Special Flood Hazard Area. The nearest largest body of water to the project site is the San Francisco Bay, which is approximately 4.5 miles to the west of the project site. The project site is also approximately six miles from Lake Chabot to the northwest. Since the project site is not near a large body of water and is four miles inland from the San Francisco Bay, the project site would not risk release of pollutants due to inundation by seiche, tsunami. The project site is likewise not located within a flood zone and impacts concerning flood hazards would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	■
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	■	☐

a. Would the project physically divide an established community?

The proposed project would involve development of 12 single-family residences on approximately 1.8 acres of land currently occupied by two residences and associated structures over a portion of the site. No operational or structural changes are proposed that would separate connected areas physically or socially, nor are any linear features, new roads or other barriers to movement proposed. There would be no impact.

NO IMPACT

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The proposed project's consistency with the City of Hayward's General Plan land use designation and key Zoning Ordinance provisions is discussed below.

Hayward 2040 General Plan

The project site has a land use designation of LDR (Low Density Residential). As described in the City's General Plan, the LDR designation generally applies to suburban areas that contain a mix of housing types. The LDR designation allows for single-family residences, secondary units, and ancillary structures. Development standards under the LDR designation include density's ranging from 4.3 to 8.7 dwelling units per net acre and a maximum floor area ratio (FAR) of 0.4. The maximum FAR of 0.4 only applies to public and quasi-public uses, neighborhood commercial uses, and neighborhood mixed-use. The proposed project would involve the development of 12 single-family residences. As shown in Table 1, the proposed project would have an overall density of 8.7 dwelling units per acre, which is within the acceptable range.

The City's General Plan identifies goals policies to guide land use patterns to strategically accommodate future growth while preserving and enhancing the city as a whole. The proposed project's consistency with the City's goals and policies is described in Table 12.

Table 12 General Plan Consistency

General Plan Goal or Policy	Proposed Project Consistency
Policy LU-1.3 Growth and Infill Development. 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.	**Consistent.** The proposed project is a residential infill project that would be built on two existing parcels designated for residential uses in Hayward.
Policy LU-1.4 Revitalization and Redevelopment. The City shall encourage property owners to revitalize or redevelop abandoned, obsolete, or underutilized properties to accommodate growth.	**Consistent.** The proposed project would replace two existing residences with 12 new units to accommodate growth within the city.
Policy LU-1.8 Green Building and Landscaping Requirements. The City shall maintain and implement green building and landscaping requirements for private- and public-sector development to: ▪ Reduce the use of energy, water, and natural resources. ▪ Minimize the long-term maintenance and utility expenses of infrastructure, buildings, and properties. ▪ Create healthy indoor environments to promote the health and productivity of residents, workers, and visitors. ▪ Encourage the use of durable, sustainably-sourced, and/or recycled building materials. ▪ Reduce landfill waste by promoting practices that reduce, reuse, and recycle.	**Consistent.** The proposed project includes a number of sustainability features. For example, the proposed project would install solar panels on every residence, install energy- and water-efficient appliances inside and outside the units, and utilize natural stone and other sustainable materials. In addition, the proposed project would comply with the state mandated CALGreen, which would require the project to reduce water consumption by 20 percent, divert 50 percent of construction waste from landfills, and install low pollutant-emitting materials for interior finish materials such as paints, carpet, vinyl flooring and particle board.
Policy LU-3.7 Infill Development in Neighborhoods. The City shall protect the pattern and character of existing neighborhoods by requiring new infill developments to have complimentary building forms and site features.	**Consistent.** The proposed project would be consistent with the General Plan designation of LDR and the surrounding character of the neighborhood. The proposed residential units would have similar building form and site features to the residences in the existing neighborhood.

The proposed project would be consistent with these General Plan policies and with the land use designation.

City of Hayward Zoning Ordinance

The project site is zoned RS (Single-Family Residential) per the Hayward Zoning Map. The RS District is intended to accommodate only single-family residences and the community services appurtenant thereto (HMC Section 10-1.205). The proposed project would involve a Tentative Tract Map and a zone change for both parcels from RS to PD (Planned Development). The purpose of the PD District is to "encourage development, redevelopment, and rehabilitation" and "foster well designed residential and nonresidential development, encouraging projects incorporating a variety of housing types" (HMC Section 10-1.2505). Land uses permitted in any other district may be permitted in the PD District provided such use or uses are in harmony with each other and serve to fulfill the function of the planned unit development while complying with the General Plan (HMC Section 10-1.2510).

The proposed project also includes a request for exceptions from two RS District development standards related to lot size and yard size, including setbacks. The proposed project involves lots between 2,225 and 3,396 square feet which is smaller than the minimum lot size requirement of 5,000 square feet required by HMC 10-1.225. Assuming the request for rezoning is approved and

the exceptions are approved, the proposed project and use would be consistent with the zoning provisions of the HMC. Since the proposed project involves single-family residential uses and would be consistent with the LDR land use designation, it would be a permitted use in the PD District. Building standards such as lot area, frontage and width, coverage, density, building heights, landscaping, open space, fencing, signs, and parking for uses in a PD District include the standards of the zoning district most similar in nature and function to the use proposed. In this case, the proposed project involves single family residential development; therefore, the standards of the RS District would apply.

Pending approval of the requested zone change, the project would not conflict with the City's General Plan or zoning ordinance. Therefore, impacts of the proposed project would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	■
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?	☐	☐	☐	■

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b. Would the project 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?

Hayward's principal mineral resources are stone, limestone, clay, fire clay, halite, and salt (City of Hayward 2014). The city currently has no active mineral extraction operations (DOC 1987). The proposed project would include involve the construction of 12 single-family residences in a residential neighborhood and would not result in a loss of available minerals. There would be no impact.

NO IMPACT

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13 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	■	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	■	☐

a. Would the project induce substantial unplanned 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)?

The proposed project would involve the construction of 12 single-family residences, five of which would include ADUs, and would directly generate population growth in the City. The City currently has a population of 162,030, has 49,913 housing units, and has an average household size of 3.24 persons per household (DOF 2018). The City's 2040 General Plan would allow up to approximately 7,472 additional single-family dwelling units, 7,339 additional multi-family housing units, and 25,787 additional jobs over 2010 conditions (City of Hayward 2013). The proposed project would add 12 housing units and five ADUs that may also be occupied or approximately 55 new residents to the City (12+5 households x 3.24 persons per household = 55 new residents). This shows a conservative estimate for population growth, as the ADUs may not indicate additional tenants and may be used solely by the residents of the 12 new dwelling units and also would likely be occupied by fewer residents than the City average of 3.24 persons per unit. As discussed in Section 11, *Land Use and Planning,* the proposed project is consistent with the General Plan's LDR land use designation. The addition of 17 overall units (including the ADUs) and 55 residents to the City of Hayward would be within the growth envisioned under the City's General Plan and would not represent substantial population growth. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

While there are two occupied existing dwellings on the project site that would be demolished, the proposed project would provide 12 new units, and five additional ADUs. Demolition of two units would not displace substantial numbers of people, and the project would result in a net gain of ten units on the project site; thus, the project would not require the construction of replacement housing elsewhere. In addition, the City's General Plan includes goals and policies to avoid the

displacement of substantial numbers of existing people or housing elsewhere in the city. Specifically, policy LU-1.12 requires that the City coordinate with local and regional agencies to prepare updates to regional growth plans and strategies, and policy LU-1.13 states that the City shall strive to develop local plans and strategies that are consistent with the Bay Area's Regional Transportation Plan and the Sustainable Communities Strategy (City of Hayward 2014). These policies align new housing, such as the proposed project, with regional growth plans and sustainability strategies. This allows for controlled residential growth within established land use patterns, and thus avoid large-scale displacement of people and housing. The proposed project is consistent with the General Plan's LDR land use designation and as such, would be developed in accordance with the City's General Plan policies regarding the City's efforts to avoid displacement of people and housing. The proposed project would have a less than significant impact related to displacement of housing or people.

LESS THAN SIGNIFICANT IMPACT

14 Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	■	☐	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	■	☐	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■

Fundamentals of Noise

The unit of measurement used to describe a noise level is the decibel (dB). However, the human ear is not equally sensitive to all frequencies within the sound spectrum. Therefore, a method called "A weighting" is used to filter noise frequencies that are not audible to the human ear. A weighting approximates the frequency response of the average young ear when listening to most ordinary everyday sounds. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the "A-weighted" levels of those sounds. Therefore, the A-weighted noise scale is used for measurements and standards involving the human perception of noise. In this analysis, all noise levels are A weighted, and "dB(A)" is understood to identify the A weighted decibel.

Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. A 10 dB increase represents a 10-fold increase in sound intensity, a 20 dB change is a 100-fold difference, 30 dB is a 1,000-fold increase, etc. Thus, a doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; a halving of the energy would result in a 3 dB decrease.

Human perception of noise has no simple correlation with acoustical energy. The perception of noise is not linear in terms of dB(A) or in terms of acoustical energy. Two equivalent noise sources combined do not sound twice as loud as one source. It is widely accepted that the average healthy

ear can barely perceive changes of 3 dB(A), increase or decrease; that a change of 5 dB(A) is readily perceptible; and that an increase (decrease) of 10 dB(A) sounds twice (half) as loud (Caltrans 2013).

Descriptors

The impact of noise is not a function of loudness alone. The time of day when noise occurs, and the duration of the noise are also important. In addition, most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors has been developed. The noise descriptors used for this analysis are the one-hour equivalent noise level (L_{eq}) and the community noise equivalent level (CNEL).

- The L_{eq} is the level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound. For example, $L_{eq(1h)}$ is the equivalent noise level over a 1-hour period and $L_{eq(8h)}$ is the equivalent noise level over an 8-hour period. $L_{eq(1h)}$ is a common metric for limiting nuisance noise whereas $L_{eq(8h)}$ is a common metric for evaluating construction noise.
- The CNEL is a 24-hour equivalent sound level. The CNEL calculation applies an additional 5 dB(A) penalty to noise occurring during evening hours, between 7:00 p.m. and 10:00 p.m., and an additional 10 dB(A) penalty is added to noise occurring during the night, between 10:00 p.m. and 7:00 a.m. These increases for certain times are intended to account for the added sensitivity of humans to noise during the evening and night.

Propagation

Sound from a small, localized source (approximating a “point” source) radiates uniformly outward as it travels away from the source in a spherical pattern, known as geometric spreading. The sound level decreases or drops off at a rate of 6 dB(A) for each doubling of the distance.

Traffic noise is not a single, stationary point source of sound. Over some time interval, the movement of vehicles makes the source of the sound appear to emanate from a line (line source) rather than a point. The drop-off rate for a line source is 3 dB(A) for each doubling of distance.

Vibration

Vibration levels are usually expressed as single-number measure of vibration magnitude, in terms of velocity or acceleration, which describes the severity of the vibration without the frequency variable. The peak particle velocity (ppv) is defined as the maximum instantaneous positive or negative peak of the vibration signal, usually measured in inches per second. Since it is related to the stresses that are experienced by buildings, ppv is often used in monitoring of blasting vibration. Although ppv is appropriate for evaluating the potential of building damage, it is not suitable for evaluating human response. It takes some time for the human body to respond to vibrations. In a sense, the human body responds to an average vibration amplitude (Federal Transit Administration [FTA] 2018). Because vibration waves are oscillatory, the net average of a vibration signal is zero. Thus, the root mean square (rms) amplitude is used to describe the "smoothed" vibration amplitude (FTA 2018). The rms of a signal is the square root of the average of the squared amplitude of the signal, usually measured in inches per second. The average is typically calculated over a 1-second period. The rms amplitude is always less than the ppv and is always positive. Decibel notation is used to compress the range of numbers required to describe vibration. The abbreviation VdB is used in this analysis for vibration decibels to reduce the potential for confusion with sound decibels.

Vibration significance ranges from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, the general threshold where minor damage can occur in fragile buildings (FTA 2018). The general human response to different levels of groundborne vibration velocity levels is described in Table 13.

Table 13 Human Response to Different Levels of Groundborne Vibration

Vibration Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception for many people
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable
85 VdB	Vibration acceptable only if there are an infrequent number of events per day

Source: FTA 2018

Continued vibration of building components can also take the form of an audible low-frequency rumbling noise, which is referred to as groundborne noise. Groundborne noise is usually only a problem when the originating vibration spectrum is dominated by frequencies in the upper end of the range (60 to 200 Hertz), or when foundations or utilities, such as sewer and water pipes, connect the structure and the vibration source.

Regulatory Setting

The goals and policies contained in the *Hayward 2040 General Plan* Hazards Element focus on minimizing human exposure to excessive noise by evaluating noise exposure risks and incorporating appropriate mitigation measures. In support of these goals, the General Plan contains a table of exterior noise compatibility standards for various land uses (shown in Table 14) to determine potential noise exposure impacts, noise compatibility thresholds and the need for mitigation. According to the City's noise standards showing in Table 14 the highest level of exterior noise exposure regarded as "normally acceptable" for single-family residences is 60 DNL. DNL or Day Night Average is an average 24-hour noise measurement that factors day and night noise levels. In addition, consistent with State noise insulation standards (California Building Code Title 24), the City's General Plan policy HAZ-8.5 states the maximum acceptable interior noise level for all new residential units is 45 DNL. (City of Hayward 2014). This policy also specifies 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, is 60 DNL. This standard does not apply to secondary open space areas, such as front yards, balconies, stoops and porches, and is to be measured at the approximate center of the primary open space area.

Table 14 City of Hayward Exterior Noise Compatibility Standards for Various Land Uses

Land Use Type	Highest Level of Exterior Noise Exposure that is Regarded as "Normally Acceptable"[1] (DNL or CNEL)
Residential: Single-Family Homes, Duplex, Mobile Home	60
Residential: Townhomes and Multi-Family Apartments and Condominiums	65
Urban Residential Infill[2] and Mixed-Use Projects[3]	70
Lodging: Motels and Hotels	65
Schools, Libraries, Churches, Hospitals, Nursing Homes	70
Auditoriums, Concert Hall, Amphitheaters	Mitigation based on site-specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site-specific study
Playgrounds, Neighborhood Parks	70
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75
Office Buildings: Business, Commercial, and Professional	70
Industrial Manufacturing, Utilities, Agriculture	75

[1] "Normally Acceptable" means that the specified land uses is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise mitigation.

[2] Urban residential infill would include all types of residential development within existing or planned urban areas (such as Downtown, The Cannery Neighborhood, and the South Hayward BART Urban Neighborhood) and along major corridors (such as Mission Boulevard).

[3] Mixed-Use Projects would include all mixed-use developments throughout the City of Hayward.

Source: City of Hayward 2014

HMC Section 4-1 contains the City's noise regulations as amended by Ordinance 11-03, adopted March 22, 2011. Section 4-1.03-1 establishes residential property noise limits such that noise above 70 dBA CNEL between the hours of 7:00 a.m. and 9:00 p.m. is prohibited and a noise level of 60 dBA CNEL between the hours of 9:00 a.m. and 7:00 a.m. is prohibited.

Section 4-1.03.4 of the HMC states that during construction no piece of equipment shall produce a noise level exceeding 83 dBA at 25 feet from the source. This section, consistent with General Plan policy HAZ-8.21, also limits construction, alteration, or repair of structures and any landscaping activities to the hours below:

- Sundays and holidays between 10:00 a.m. and 6:00 p.m.
- Monday through Saturday between 7:00 a.m. and 7:00 p.m.

Finally, the City's General Plan policy HAZ-8.22 requires a vibration impact assessment for proposed projects in which heavy-duty equipment would be used (e.g. pile driving, bulldozing) within 200 feet of an existing structure or sensitive receptor. If applicable, the City requires all feasible mitigation measures to be implemented to ensure that no damage or disturbance to structures or sensitive receptors would occur. The City of Hayward has not adopted a significance threshold to assess vibration impacts during construction and operation. Therefore, the FTA guidelines set forth in the FTA *Transit Noise and Vibration Impact Assessment Manual* (2018) are used to evaluate potential

construction vibration impacts related to both potential building damage and human annoyance. Based on the FTA criteria, construction vibration impacts would be significant if construction vibration levels exceed 100 VdB, which is the general threshold where damage can occur to fragile buildings, or 72 VdB at residences during nighttime hours (FTA 2018).

Existing Setting

The noise environment on the project site is dominated by noises typical of residential neighborhoods, including vehicular traffic, pedestrian conversations, and doors slamming. On April 19, 2019, Rincon Consultants, Inc. performed one 15-minute weekday noise measurements using an ANSI Type II integrating sound level meter. The measurement was taken during the a.m. (morning) peak hour, and results are summarized in Table 15. Figure 4 shows the noise measurement location.

Table 15 Noise Measurement Results

Measurement Location	Sample Time	Primary Noise Source	L_{eq} [15] (dBA)[1]
Harvey Ave. project site frontage	8:25 AM – 8:40 AM	Vehicles on Harvey Ave. (15 feet from centerline)	54.8

See Figure 4 for a map of the noise measurement location.

[1] The equivalent noise level (L_{eq}) is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). For this measurement, the L_{eq} was over a 15-minute period (L_{eq} [15]).

Source: Rincon Consultants, field measurements conducted on April 19, 2019, using ANSI Type II Integrating sound level meter. See Appendix G for noise measurement results.

Sensitive Receptors

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Noise-sensitive receptors generally include single- and multi-family residences, hotels, motels, schools, libraries, places of worship, hospitals, and nursing homes. The predominant noise-sensitive land uses in the project vicinity are residences located adjacent to the project site on all surrounding sides and the church across Harvey Avenue to the east. The nearest sensitive receptors to the project site are the single-family residences along Harvey Avenue located to the west and north of the project site.

Figure 4 Noise Measurement Location

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Fig 4 Noise

a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

The proposed project could generate temporary noise increases during construction and long-term increases associated with project operation; however, as discussed below, both construction-related and operational noise would be less than significant with mitigation incorporated.

Construction Noise

Construction noise was estimated using the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM). RCNM predicts construction noise levels for a variety of construction operations based on empirical data and the application of acoustical propagation formulas. Because a specific construction equipment list is not yet available for the project, the construction equipment list used in RCNM was generated using the CalEEMod output for the air quality and GHG analysis (see Appendix B). CalEEMod uses project characteristics, such as land use, building sizes, and lot acreage, to estimate a project's emissions and uses default equipment lists in its modeling based on empirical data. Noise was modeled based on the project's construction equipment list for each phase and distance to nearby receptors. Although the nearest noise sensitive receptors are adjacent to the project site this analysis assumes that on average construction would occur approximately 25 feet from the project boundary because on average construction equipment would not operate on the project boundary line. Table 16 identifies the maximum expected noise levels at the nearest sensitive receptors based on the combined use of construction equipment anticipated to be used concurrently during each phase of construction.

Table 16 Maximum Estimated Noise Levels by Construction Phase

Construction Phase	Equipment	Estimated Noise (dBA L_{eq}) at 25 feet
Demolition	Concrete saw, dozer, backhoe	91
Site Preparation	Grader, backhoe, dozer	91
Grading	Grader, backhoe, dozer	91
Building Construction	Generator, tractor, lift, crane, welders	89
Paving	Cement mixers, paver, roller, backhoe, paving equipment	92
Architectural Coating	Air compressors	80

Source: Roadway Construction Noise Model. See Appendix G for equipment noise impact data sheets.

The estimated construction noise levels shown in Table 16 do not take into account the fact that equipment is typically dispersed in various areas of the site. Due to site and equipment limitations, only a limited amount of equipment can operate near a given location at a particular time. Intervening buildings or portions of buildings between construction equipment and noise-sensitive receptors also would reduce exposure to construction noise below the levels shown in Table 16. Therefore, this analysis of construction noise impacts is conservative.

As show in Table 16, construction noise could be as high as approximately 92 dBA L_{eq} at surrounding residential receptors approximately 25 feet from construction activity. Such levels would exceed ambient noise and would be audible on adjacent properties, including residences immediately north and south of the project site.

HMC Section 4-1.03.4 limits the hours of construction and maintenance activities to the less sensitive hours of the day (7:00 a.m. – 7:00 p.m. Monday through Saturday and 10:00 a.m. – 6:00 p.m. on Sundays and holidays). Therefore, construction would not occur during recognized sleep hours for residences. This section also states that during the construction period listed above no piece of equipment shall produce a noise level exceeding 83 dBA at 25 feet from the source. The project site is located in an urban area where some construction noise is expected, and the construction methods and equipment would be typical for residential construction in urban and suburban areas; for example, no pile driving or major excavation would be required. Therefore, project construction would be within the range of typical construction noise for an urban area. Mitigation Measure N-1 would ensure that construction noise occurs within the hours specified by the City and would reduce construction equipment related noise at nearby sensitive receptors in accordance with the levels required by HMC Section 4-1.03.4. Impacts would be less than significant with mitigation incorporated.

Mitigation Measure

The following mitigation measure would be required to reduce construction noise impacts to a less than significant level.

N-1 Construction-Related Noise Reduction Measures

The applicant shall implement the following measures during construction of the project:

- **Construction Hours.** Construction activity shall not occur between 7:00 p.m. and 7:00 a.m. Monday through Saturday and 6:00 p.m. through 10:00 a.m. on Sundays and holidays.
- **Mufflers.** Construction equipment shall be properly maintained and all internal combustion engine driven machinery with intake and exhaust mufflers and engine shrouds, as applicable, shall be in good condition and appropriate for the equipment. During construction, all equipment, fixed or mobile, shall be operated with closed engine doors and shall be equipped with properly operating and maintained mufflers, consistent with manufacturers' standards.
- **Electrical Power.** Electrical power, rather than diesel equipment, shall be used to run compressors and similar power tools and to power any temporary structures, such as construction trailers or caretaker facilities.
- **Equipment Staging.** All stationary equipment shall be staged as far away from the adjacent multi-family residential development as feasible.
- **Equipment Idling.** Construction vehicles and equipment shall not be left idling for longer than five minutes when not in use.
- **Workers' Radios.** All noise from workers' radios shall be controlled to a point that they are not audible at sensitive receptors near construction activity.
- **Smart Back-up Alarms.** Mobile construction equipment shall have smart back-up alarms that automatically adjust the sound level of the alarm in response to ambient noise levels. Alternatively, back-up alarms shall be disabled and replaced with human spotters to ensure safety when mobile construction equipment is moving in the reverse direction.
- **Disturbance Coordinator.** The applicant shall designate a disturbance coordinator who shall be responsible for responding to any local complaints about construction noise. The noise disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too

early, bad muffler, etc.) and shall require that reasonable measures warranted to correct the problem be implemented. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.

Significance After Mitigation

With implementation of Mitigation Measure N-1, construction noise would only occur within the hours specified in the HMC. Further, implementation of Mitigation Measure N-1 would reduce overall noise levels from construction activity. The use of manufacturer-certified mufflers associated with construction equipment has been shown to reduce noise levels by 10 dBA L_{eq} or more with optimal systems (FHWA 2017). As shown above in Table 16, construction noise could be as high as approximately 92 dBA L_{eq} at surrounding residential receptors approximately 25 feet from construction activity. With the use of mufflers this noise would be reduced to 82 dBA L_{eq}, which would be below the standards included in the HMC. Impacts would be less than significant with mitigation incorporated.

On-Site Operational Noise

Operational noise associated with the proposed project would be typical of residential uses in a residential neighborhood and would not have a significant impact on ambient noise levels. The primary on-site noise sources associated with operation of the proposed project would include vehicle circulation noise (e.g., engine startups, alarms, parking) associated with the on-site roads; heating, ventilation, and air conditioning (HVAC) equipment at proposed residences; outdoor recreational noise at common and private open space areas; and use of landscaping equipment. The project site is located along Harvey Avenue and is surrounded by residential uses. Therefore, the project site vicinity is already exposed to typical vehicle circulation noise, HVAC noise, recreational noise, and landscape equipment noise associated with existing uses in the project vicinity. Operation of the proposed residences would not generate sources of noise that are new to the existing surrounding area. The proposed project would be subject to the City's exterior noise standards for residential uses, as shown above in Table 14. In addition, residents would be subject to HMC Section 4-1.03-1 regarding creation of nuisance noise, which prohibits noise above 70 dBA CNEL between the hours of 7:00 a.m. and 9:00 p.m. and noise above 60 dBA CNEL between the hours of 9:00 a.m. and 7:00 a.m. on residential properties.

Furthermore, these noise-generating activities would be similar to those of existing single-family residences in the immediate vicinity of the project site and would result in a negligible change to existing noise levels. Therefore, operation of the proposed project would not result in a substantial temporary or periodic increase in ambient noise levels. Impacts would be less than significant.

Off-Site Traffic Noise

The proposed project would generate new vehicle trips and incrementally increase traffic on area roadways, which would increase roadway noise at noise at nearby residences to the north and south along Harvey Avenue. As discussed in Section 17, *Transportation*, the proposed project would generate approximately 114 daily vehicle trips. All new trips would be added to Harvey Avenue as this is the only entrance to the project site. To determine existing traffic volumes along area roadways, a traffic count was taken along Harvey Avenue at the location of NM 1 over a 15-minute interval. During the 15-minute interval at NM 1, 13 vehicles were counted. Traffic numbers were multiplied by four to obtain an approximate hourly traffic volume of 52 vehicles along Harvey

Avenue. Because hourly traffic is equivalent to up to 10 percent of daily traffic, the daily traffic volume along Harvey Avenue was estimated at approximately 520 vehicles (Precision Traffic 2018).

The proposed project's contribution to roadway noise was evaluated through a calculation by comparing existing traffic noise levels with operation of the project. Generally, a doubling of traffic (i.e., 100 percent traffic increase) would increase noise levels by approximately 3 dBA, which is the human level of perception for an increase in noise (FTA 2018). Therefore, a 10 percent increase in the number of vehicles on a roadway would result in a noise increase of approximately 0.4 dBA increase. The 114 daily trips added by the project would constitute a 22 percent increase in traffic volume along Harvey Avenue, resulting in a noise increase of approximately 0.8 dBA. Such an increase would be imperceptible and would not result in a substantial permanent increase in ambient noise levels. Traffic noise would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction of the proposed project would intermittently generate vibration on and adjacent to the project site. Vibration-generating equipment may include bulldozers and loaded trucks to move materials and debris, and vibratory rollers for paving. It is assumed that pile drivers, which generate strong groundborne vibration, would not be used during construction. The distance to the nearest sensitive receptors to the project site include single-family residences located adjacent to the south and north of the project site at approximately 25 feet. Table 17 identifies vibration velocity levels at a distance of 25 feet from the source.

Table 17 Vibration Levels for Construction Equipment at Noise-Sensitive Receptors

	Estimated VdB at Nearest Sensitive Receptors
Construction Equipment	**25 feet**
Vibratory roller	94
Large bulldozer	87
Loaded trucks	86
Small bulldozer	58

Source: FTA 2018

As shown in Table 17, noise-sensitive receptors would experience the strongest vibration of up to 94 Vdb during paving with vibratory rollers and up to 87 Vdb during grading activity with large bulldozers. Compliance Mitigation Measure N-1, in accordance with Section 4-1.03.4 of the HMC, would restrict vibration-generating construction activity to daytime hours that are outside of normal sleeping hours, i.e., 7:00 a.m. – 7:00 p.m. Monday through Saturday and 10:00 a.m. – 6:00 p.m. on Sundays and holidays. While vibration from construction activity could be perceptible at adjacent residences during daytime hours, this timing restriction would ensure that vibration does not exceed the FTA's criterion of 72 VdB during normal sleeping hours at residential uses (FTA 2018). In addition, no fragile historic buildings are located in close proximity to the project site. Therefore, no fragile buildings would be damaged by construction vibration. The project construction would have a less than significant impact from groundborne vibration with mitigation incorporated.

As a residential development, the proposed project would not generate significant stationary sources of vibration, such as manufacturing or heavy equipment operations. Operational vibration

in the project vicinity would be generated by additional vehicular travel on local roadways; however, any increase in traffic-related vibration levels would not be perceptible because the proposed project would only increase existing traffic volumes by approximately 22 percent over existing conditions on Harvey Avenue. Therefore, operational vibration impacts would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

As discussed in Section 9, *Hazards and Hazardous Materials*, the nearest airport to the project site is the Hayward Executive Airport, located approximately three miles northwest. The project site is not located within the Hayward Executive Airport Influence Area and is located outside the existing noise level contours for the airport (ALUC 2012). The proposed project would not subject workers at the site to excessive noise and there would be no impact.

NO IMPACT

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15 Public Services

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or 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:				
1	Fire protection?	☐	☐	■	☐
2	Police protection?	☐	☐	■	☐
3	Schools?	☐	☐	■	☐
4	Parks?	☐	☐	■	☐
5	Other public facilities?	☐	☐	■	☐

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Fire protection is provided to the City by the Hayward Fire Department (HFD). The HFD provides fire suppression, advanced life support/emergency medical, emergency services, and public education. Station 7 is the closest fire station to the project site. Located at 28270 Huntwood Avenue, this station is located approximately three minutes driving time, 0.7 miles northeast of the project site. Hayward adopted the 2015 edition of the International Fire Code and the 2016 California Fire Code as the city's Fire Code in 2017 (HMC Section 3-14.00).

The proposed project involves the development of 12 residential units on a currently developed site surrounded by residential development that is currently served by the HFD. Therefore, the proposed project would incrementally increase the demand for fire and medical services. The proposed project would be required to comply with City requirements for fire access and onsite fire prevention facilities (e.g., fire hydrants and sprinkler systems). The proposed project involves residential development on a site that is planned for residences. As described under Section 11, *Land Use and Planning,* and Section 13, *Population and Housing*, the proposed project would be consistent with the General Plan's LDR land use designation and would not generate growth beyond

that anticipated in the General Plan. Therefore, the proposed project would not place an unanticipated burden on fire protection services or affect response times or service ratios such that new or expanded fire facilities would be needed. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The Hayward Police Department (HPD) provides law enforcement services in Hayward. The nearest police station to the site is located at 300 West Winton Avenue, 3.4 miles northwest of the project site (approximately nine minutes driving time). The proposed project would involve the construction of 12 single-family residences on a site surrounded by existing development that is currently served by the HPD. Although the proposed project would incrementally increase the demand for police services, the project site is located in the close vicinity (within four miles) of the City's police headquarters, was envisioned for future residential development in the City's General Plan and would not require the construction or expansion of police protection facilities beyond those already planned under General Plan assumptions (City of Hayward 2013). Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

The project site is served by the Hayward Unified School District (HUSD). The proposed project would involve the construction of 12 single-family residences. Assuming a conservative student generation rate of one student per residence, the proposed project would increase the number of students attending schools operated by HUSD by approximately 12 additional students. The addition of 12 students to the HUSD would not result in the need for additional school facilities. In addition, pursuant to Senate Bill 50 (Section 65995(h)), payment of mandatory fees to the affected school district would reduce potential school impacts to less than significant level under CEQA. Therefore, the proposed project would have a less than significant impact with respect to schools.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

The Hayward Area Recreation and Park District is an independent special use district created to provide park and recreational services for over 280,000 residents in the City (City of Hayward 2019). The proposed project would include both private open space for each residence and two shared open space areas. The closest park to the project site is Ruus Park, located less than 0.1 mile to the west. Pursuant to City Code (Chapter 10.16), payment of mandatory park in-lieu fees would reduce

potential park impacts to less than significant level under CEQA. Therefore, the proposed project would have a less than significant impact with respect to city parks.

LESS THAN SIGNIFICANT IMPACT

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

As discussed in Section 13, *Population and Housing*, the proposed project would not add substantial population to Hayward and is consistent with growth anticipated in the City's General Plan. The proposed project involves infill development and the addition of 12 units would not result in a material effect on the need for additional public facilities. Therefore, the proposed project would not substantially increase demand for public facilities and resources. Impacts to stormwater, wastewater, and water facilities are discussed in Section 19, *Utilities and Service Systems.* Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	■	☐
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?	☐	☐	■	☐

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

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?

The proposed project would include both private open space for each residence and two shared open space areas. The amount of private open space for each residence would range between 515 and 2,063 square feet. Shared open space (2,790 square feet) would be provided in the northern portion of the project site at the end of the proposed private street between lots five and six. The impacts of these open space areas are discussed throughout this document as part of the analysis of project construction as a whole. In addition, the project site is within walking distance of Ruus Park. Future residents would be able to utilize these recreational areas and facilities. In addition, pursuant to City Code (Chapter 10.16), payment of mandatory park in-lieu fees would reduce potential park impacts to less than significant level.

LESS THAN SIGNIFICANT IMPACT

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17 Transportation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	■	☐
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	■
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	☐	☐	☐	■
d. Result in inadequate emergency access?	☐	☐	☐	■

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Table 18 shows the estimated trip generation from the project based on trip generation rates provided by the Institute of Transportation Engineers.

Table 18 Proposed Project Trip Generation – Single-Family Homes

Land Use	Dwelling Units	Daily Trips	A.M. Peak Hour Trips			P.M. Peak Hour Trips		
			In	Out	Total	In	Out	Total
Single-Family Homes[1]	12	114	2	7	9	8	4	12

[1] Trip generation rates from Institute of Transportation Engineers (ITE) *Trip General Manual, 9th Edition*, land use category 210 (Single Family Homes).

As shown in Table 18, the proposed project would generate approximately 114 daily trips including 9 a.m. peak hour trips and 12 p.m. peak hour trips. The primary roadway that would be affected is Harvey Avenue, a two-lane road designed to carry relatively low levels of vehicle traffic. The modest number of new trips associated with the proposed project do not warrant a detailed traffic study and would not significantly alter the area's transportation network and operations. Alameda County does not require transportation impact analyses for projects generating fewer than 100 p.m. peak hour trips; the proposed project would generate approximately 12 p.m. peak hour trips. The proposed project would not create conflicts with applicable plans, ordinance or policies related to the City's circulation system. Therefore, impacts would be less than significant.

As the Congestion Management Agency (CMA) for Alameda County, the Alameda County Transportation Commission (ACTC) is responsible for establishing, implementing, and monitoring the County's Congestion Management Program (CMP). Through its implementation of the CMP, the ACTC works to ensure that roadways operate at acceptable levels of service (LOS) and reviews development proposals to ensure that transportation impacts are minimized. The additional trips from the proposed project would not create conflicts with Alameda County CMP impact criteria.

Additionally, the proposed project would not conflict with adopted policies, plans, or programs regarding alternative transportation as the proposed project does not include alterations to existing bike access, pedestrian pathways, or transit routes. Because the proposed project construction and operations would be contained within the boundary of the project site no changes to the existing transportation policies, plans, or programs would result, either directly or indirectly, from development on the project site. In addition, the proposed project would not involve the obstruction, removal or relocation of, or excessive additional demand for, existing transit, pedestrian, or bicycle facilities. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

CEQA Guidelines Section 15064.3(b) identifies criteria for evaluating transportation impacts. Section 15064.3(c) states that the requirement to use these criteria only applies on and after July 1, 2020. Although a lead agency may elect to apply the criteria in Section 15064.3(b) sooner, the City of Hayward has not adopted these criteria as of the date of this Initial Study. Therefore, this section does not apply to the proposed project or the analysis in this Initial Study.

NO IMPACT

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

Project implementation would occur on the existing parcels and would not alter or effect existing street and intersection networks. The proposed project would be required to comply with the City's design standards for vehicular access and circulation and the Fire Code. Compliance would prevent hazardous design features and would ensure adequate and safe site access and circulation. The proposed project involves residential uses on a site designated for residential uses and would not introduce an incompatible use. There would be no impact.

NO IMPACT

d. Would the project result in inadequate emergency access?

The project site is directly accessible via a private street that would connect to Harvey Avenue. The proposed project would be required to comply with all building, fire, and safety codes and specific development plans would be subject to review and approval by the City's Public Works Department and HFD. Required review by these departments would ensure the circulation system for the project site would provide adequate emergency access. In addition, the proposed project would not require temporary or permanent closures to roadways. There would be no impact.

NO IMPACT

18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or 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:				
a. 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	☐	■	☐	☐
b. 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 Cod Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	■	☐	☐

As of July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted and expands CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and 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. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is 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)?*

b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is 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?*

The City of Hayward mailed a notification letter on April 4, 2019 to one local Native American tribe that has requested notification under AB 52: the Ione Band of Miwok Indians. Correspondence is included in Appendix H. Under AB 52, tribes have 30 days from receipt of the letter to respond and request consultation. The tribe did not respond during that window and request formal consultation under AB 52. Although no tribal cultural resources are expected to be present on-site, there is the possibility of encountering undisturbed subsurface tribal cultural resources. The proposed excavation of the project site could potentially result in adverse effects on unanticipated tribal cultural resources. However, impacts from the unanticipated discovery of tribal cultural resources during construction would be less than significant with Mitigation Measure TCR-1.

Mitigation Measure

The following mitigation measure would reduce impacts regarding disrupting tribal cultural resources to a less than significant level.

TCR-1 Unanticipated Discovery of Tribal Cultural Resources

In the event that cultural resources of Native American origin are identified during construction, all earth disturbing work within the vicinity of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find and an appropriate Native American representative, based on the nature of the find, is consulted. If the City determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with Native American groups. The plan would include avoidance of the resource or, if avoidance of the resource is infeasible, the plan would outline the appropriate treatment of the resource in coordination with the archeologist and the appropriate Native American tribal representative.

Significance After Mitigation

Mitigation Measure TCR-1 would ensure that tribal cultural resources are identified properly and preserved in the event they are uncovered during construction and would reduce impacts regarding disrupting tribal cultural resources to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

19 Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	■	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	■	☐
c. 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?	☐	☐	■	☐
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	■	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	■	☐

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

c. Would the project 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?

Water Supply

A significant impact would occur if a project would increase water consumption or wastewater generation to such a degree that the capacity of facilities currently serving the project site would be exceeded or that new water sources would need to be identified. The proposed project would receive its water from the City of Hayward. The City of Hayward provides water for residential, commercial, industrial, governmental, and fire suppression uses. The City owns and operates its own water distribution system and receives its water from the Hetch Hetchy system, owned and operated by the San Francisco Public Utilities Commission (SFPUC). Emergency water supplies are available through connections with Alameda County Water District (ACWD) and East Bay Municipal Utility District (EBMUD) in case of disruption of delivery (City of Hayward 2016b).

The City's Urban Water Management Plan (UWMP) assesses Hayward's water supply reliability, and describes the City's anticipated water demand, water shortage contingency plans, and water conservation strategies. The UWMP is based on the growth projections in the City's General Plan. Major water system projects in the near-term focus on replacing and renovating existing water storage reservoirs to increase storage capacity and improve structural reliability. Hayward has also made extensive efforts to improve the seismic safety of the water system, including seismic retrofits of several reservoirs and improvements to pipes at fault line crossings (City of Hayward 2016b).

As determined in the City's UWMP, there is adequate water supply available to serve anticipated growth in Hayward. The proposed project is consistent with the General Plan's LDR land use designation and would not generate growth beyond that anticipated in the General Plan. Therefore, there would be sufficient potable water supply to accommodate the anticipated demand increases resulting from the proposed project. Impacts would be less than significant.

Wastewater Generation

A significant impact to wastewater facilities would occur if a project would:

- Discharge wastewater with pollutant concentrations that exceed the regulatory limits established by the governing agency;
- Increase wastewater generation to such a degree that the capacity of facilities currently serving the project site would be exceeded; or
- Increase wastewater flows such that a sewer or treatment plant is constrained or would become constrained.

Water quality in the State of California is regulated by the State Water Resources Control Board (State Water Board) and the nine Regional Water Quality Control Boards. The City of Hayward is located in the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (RWQCB). Section 303(d) of the CWA requires that states identify water bodies including bays, rivers, streams, creeks, and coastal areas that do not meet water quality standards and the pollutants that are causing the impairment. Total Maximum Daily Loads (TMDLs) describe the maximum amount of a pollutant that a water body can receive while still meeting established water quality standards. A TMDL requires that all sources of pollution and all aspects of a watershed's drainage system be reviewed and set forth action plans that examine factors and sources adversely affecting water quality and identify specific plans to improve overall water quality and reduce pollutant discharges into impaired water bodies.

The proposed project would connect to the City of Hayward Sanitary District sanitary sewer system. Sanitary sewage from the City's system is treated at the Hayward Water Pollution Control Facility

(WPCF). The treatment facility discharges into the San Francisco Bay under a permit with the RWQCB. Since the WPCF is considered a publicly-owned treatment facility, operational discharge flows treated at the WPCF would be required to comply with applicable water discharge requirements issued by the RWQCB. Compliance with conditions or permit requirements established by the City as well as water discharge requirements outlined by the RWQCB would ensure that wastewater discharges coming from the project site and treated by the WPCF system would not exceed applicable RWQCB wastewater treatment requirements. Therefore, impacts would be less than significant.

The project site is located in an urban area within the boundaries of the City of Hayward Water District. Utility infrastructure would not require significant improvements other than infrastructure to service the proposed 12 single-family residences. The proposed project is consistent with the General Plan's LDR land use designation and would not generate growth beyond that anticipated in the General Plan. The EIR for the City's General Plan found that there was adequate capacity at the WPCF to serve development under the General Plan. Therefore, there is adequate capacity at the WPCF to service the proposed project and no expansion of the WPCF would be required (City of Hayward 2013). Impacts would be less than significant.

Stormwater

A significant impact to stormwater facilities may occur if the volume of stormwater runoff would increase to a level exceeding the capacity of the storm drain system serving a project site, resulting in the construction of new stormwater drainage facilities. The project site is currently developed with two existing residences. Stormwater runoff from the site drains into the existing 12 inch storm pipe in Harvey Avenue at the east side, and the 15 inch storm drain system in the Alameda County Flood Control channel at the west side of the project site. Major storm drainage facilities in Hayward are owned and maintained by the Alameda County Flood Control and Water Conservation District (ACFCWCD), and include gravity pipelines predominantly made of reinforced concrete, which discharge to underground storm drain lines or manmade open channels. Storm drain pipes smaller than 30 inches are typically owned by the City and are generally provided within local streets and easements.

This system of stormwater collection and filtration would not change with implementation of the project. The proposed project would increase the amount of impervious surfaces on the project site by approximately 36,346 square feet, which would incrementally reduce the potential for groundwater recharge, increasing stormwater runoff from the site. However, as discussed in Section 10, *Hydrology and Water Quality,* the proposed project would include permeable pavement and three stormwater bioretention areas to assist with groundwater recharge and would be required to comply with all applicable stormwater management requirements. Therefore, the proposed project would not result in the need for new off-site storm water drainage facilities. All site runoff would be directed to the City's existing municipal storm drainage system, which was designed to accommodate flows resulting from buildout in the project area. The proposed project would be subject to local policies requiring that post-construction runoff volumes be less than or equal to preconstruction volumes (MS4 C.3, discussed further in Section 10). Therefore, expansion of the existing stormwater collection system is not required. Impacts would be less than significant.

Electricity, Natural Gas, and Telecommunications

A significant impact to electricity, natural gas, and telecommunications facilities may occur if the demand for services exceeds the capacity of local providers. Electricity and natural gas would be

provided to the project site by PG&E. Telecommunications services would be provided by AT&T, SBC Telecom, or other providers, at the discretion of future tenants. Telecommunications are generally available in the project area, and facility upgrades would not likely be necessary.

As described in Section 6, *Energy*, the proposed project would require approximately 0.1GWh of electricity and approximately 0.0005 MMthm per day of natural gas. The proposed project's electricity demand would be served by PG&E, which provided 82,224 GWh of electricity in 2017; therefore, PG&E would have sufficient supplies for the proposed project (CEC 2017a). The proposed project's natural gas demand would be serviced by PG&E, which provided approximately 4,715 MMthm per year in 2017; therefore, PG&E would have sufficient supplies for the proposed project (CEC 2017b). Additionally, each proposed residential unit would include rooftop solar PV panels that would further off set energy consumption. Improvements to existing facilities or the provision of new electricity and natural gas facilities is not anticipated. The proposed project would have a less than significant impact on local electricity, natural gas, and telecommunications providers.

LESS THAN SIGNIFICANT IMPACT

d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The City of Hayward provides weekly garbage collection and disposal services through a Franchise Agreement with Waste Management, Inc. (WMI), a private waste management 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 WMI, which is approximately 24 miles northeast of the project site. Altamont Landfill is a Class II facility that accepts municipal solid waste from various cities, including Hayward. The landfill occupies a 2,170-acre site of which 472 acres are permitted for landfill. In 2001, the landfill received County approval to increase capacity, adding 25 years to the life of the landfill and extending the anticipated closure date to the year 2040.

HMC Chapter 5, Article 10 requires that applicants for all construction and demolition projects that generate significant debris recycle 100 percent of all asphalt and concrete and 50 percent of remaining materials. Through these measures, the City plans to meet the State-wide diversion goal of 75 percent by 2020.

The Altamont Landfill processes approximately 1,500,000 tons of solid waste per year and has a remaining permitted capacity of 42.4 million tons (WMI 2014). Given the available capacity at the landfill, the incremental additional of solid waste generated by the proposed 12 single-family residences would not cause the facility to exceed its daily permitted capacity. In addition, implementation of the City's recycling programs, including construction debris, would further reduce solid waste generation. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

20 Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	■
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	■
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	■
d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	■

a. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

b. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

c. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

d. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes

or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The project site is not located within or near a Very High Fire Hazard Severity Zone or state responsibility area. The nearest Very High Fire Hazard Severity Zone is located approximately one mile east of the project site (CalFire 2007; 2008). Because the site is not within or near a state responsibility area or a Very High Fire Hazard Severity Zone, no impacts related to wildfires would occur.

NO IMPACT

21 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Does the project:				
a. Have the potential to substantially 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, substantially 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?	☐	■	☐	☐
b. 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)?	☐	☐	■	☐
c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	■	☐	☐

a. Does the project have the potential to substantially 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, substantially 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?

Based on the information and analysis provided throughout this Initial Study, implementation of the proposed project would not substantially degrade the quality of the environment and would not 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 rare or endangered plants or animals, or eliminate important examples of California history or prehistory. Cultural resources, which illustrate examples of California history and prehistory, are discussed in Section 5, *Cultural Resources,* and Section 18,

Tribal Cultural Resources. Mitigation Measures CUL-1 and TCR-1 have been designed to reduce potential impacts of disturbing archaeological and tribal cultural resources and human remains. Biological resources are addressed in Section 4, *Biological Resources.* With Mitigation Measures BIO-1 and BIO-2 related to nesting birds and special status bats, the proposed project would not substantially reduce wildlife habitat or population. Based on the ability of the identified mitigation measures to reduce potential impacts to less than significant levels, the proposed project's impacts would be less than significant with mitigation incorporated.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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)?

Cumulative impacts associated with some of the resource areas are addressed in the individual resource sections above: Air Quality, Greenhouse Gases, Water Supply, and Solid Waste (CEQA Guidelines Section 15064(h)(3)) and would be less than significant. Some of the other resource areas were determined to have no impact in comparison to existing conditions and therefore would not contribute to cumulative impacts, such as Mineral Resources and Agricultural Resources. As such, cumulative impacts in these issue areas would also be less than significant (not cumulatively considerable). The proposed project would incrementally increase traffic compared to existing conditions. However, due to the low volume of traffic generated by the proposed project, the proposed project would not significantly contribute to cumulative impacts to nearby roadways. The proposed project involves development of 12 residential units and would be consistent with the City's General Plan designation and density for the site. The proposed project would not result in a significant contribution to cumulatively considerable impacts.

LESS THAN SIGNIFICANT IMPACT

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Effects to human beings are generally associated with air quality, noise, traffic safety, geology/soils and hazards/hazardous materials. As discussed in this Initial Study, implementation of the proposed project would result in less than significant environmental impacts with respect to these issue areas with mitigation incorporated. The geotechnical recommendations and mitigation measure discussed in Section 7, *Geology and Soils*, would ensure that soils and grounds are stable, and that liquefaction risks are less than significant. Mitigation Measure GEO-1 would reduce health and safety risks to human beings and would result in less than significant impacts. In addition, Mitigation Measure N-1 discussed in Section 14, *Noise*, would ensure that construction noise impacts as well as impacts due to onsite vibration are less than significant and would reduce exposure and health risks to nearby sensitive receptors. With mitigation, the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly. Impacts would be less than significant with mitigation.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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Appendix A

Preliminary Arborist Report

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Appendix B

Air Quality and GHG Modelling Worksheets

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Appendix C

Archaeological Resources Assessment

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Appendix D

Geotechnical Report

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Appendix E

Phase I Environmental Site Assessment

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Appendix F

Stormwater Control Plan

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Appendix G

Noise Data

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Appendix H

Assembly Bill 52 Correspondence

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