

4.4 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES

This section of the EIR addresses potential impacts to historical, archeological, Native American and similar cultural resources.

ENVIRONMENTAL SETTING

Background

Before the arrival of Spanish explorers, Hayward and much of the surrounding region was occupied by a Native American group known as the Costanoan. These people lived along the coast and bays as well as the coastal valleys of central northern California. The coastal environment served as a major source for a variety of food and building materials. In the Hayward area, main Costanoan settlements were located where streams emerged from the hills on plains adjacent to the Bay, including the site of downtown Hayward.

Archeological evidence suggests that there has been sustained human use of the general area for at least 5,000 years.

A number of buildings and associated structures from the Victorian era and early 20th century remain, including within the downtown area. Hayward's agricultural and recreational past also manifests itself in the remaining grazing land, equestrian trails, community gardens and nurseries.

Cultural resource records search

As part of this Program EIR, the Northwest Information Center at Sonoma State University was contacted to identify recorded archeological, historical, Native American and other cultural resource sites.

Northwest Information Center records indicate the presence of one Native American archeological site within the Project area. This is P-01-001795, a large former settlement that includes burials. Given the size and number of properties included in the Project area and the presence of a number of intermittent and perennial creeks transecting the area, there is a high potential that other unrecorded Native American and/or cultural resource sites may exist within or adjacent to the area.

Standard measures are set forth in the Hayward General Plan and other City project procedures to protect buried archeological, historic and/or Native American resources should these be discovered during grading and construction activities. These measures require that if such resources are found, grading operations shall be halted and the resources are evaluated by a qualified professional. If necessary and based on recommendations of the professional, a detailed

site-specific mitigation plan is required to be formulated and implemented prior to recommending grading.

Historic structures

Based on the historic records search completed by the Northwest Information Center and the Final Environmental Impact Statement/Report for the Route 238 Hayward Bypass Project (2000), the following recognized historic structures exist within or near the Project area:

- 1436 B Street (residence)
- 1465 B Street (residence)
- 1444 C Street (residence)
- 22588 Chestnut Street (residence)
- 22589 Chestnut Street (residence)
- 1233 D Street (residence)
- 1329 D Street (residence)
- 22824 2nd Street (residence)
- 24077 2nd Street (residence)

The Draft EIR for the General Plan Update ((2001) identified potentially significant architectural resources in two areas within or adjacent to the Project area. One of the areas is located north of E Street and west of Foothill Boulevard. This area contains the remnants of the historic core of Hayward and contains the largest concentration of Victorian houses in the City as well as numerous houses from the early 20th century, including colonial revival, craftsman, bungalow, Spanish colonial revival and others. These houses are located on A, B, C and D Streets and nearby side streets.

A second area containing historic houses is located east of Mission Boulevard south of E Street. A subdivision of view homes has been constructed south of the Cal State East Bay campus and several streets branching off of Highland Boulevard near Mission Boulevard.

No sites within the Project area are listed in the National Register of Historic Places or are listed on the California Register of Historic Resources.

Regulatory framework

Hayward General Plan. The Hayward General Plan contains the following policy and related strategies related to cultural resources.

- The city's image through identification and preservation of historic resources
(*Community Facility and Amenities Policy 7*)
 - * Seek landmark status for valued structures and sites where preservation is deemed feasible and promote the acquisition of historic sites and parks where appropriate
(*Strategy 3*)

- * Encourage rehabilitation of valued buildings and sites and provide information on architectural styles, renovation techniques, federal and state tax benefits and other financing sources (*Strategy 4*)
- * Encourage adaptive reuse of Victorians and other vintage buildings as professional offices, galleries, shops, lodgings or venues for special events (*Strategy 5*)
- * Utilize zoning regulations, design guidelines and other development review standards to protect the character of historic districts and sites, and increase the visibility of these sites with appropriate signage and landscaping and alignment of roads and paths where appropriate (*Strategy 7*)

Upper B Street Neighborhood Plan.

- Protect and enhance the neighborhood’s historic character (*Policy 11*)

City of Hayward Historic Preservation Program

The City adopted an Historic Preservation Ordinance in 1989. This Ordinance provides for the designation of historic structures, sites or districts and outlines procedures for approval of alterations and demolition of significant structures.

The City of Hayward is presently updating this Ordinance. It is anticipated that the update will include policies and procedures for officially designating historic structures. As a part of the update process, a new list of potentially historic structures and resources in the community will be identified. It is expected that the program will be completed in September 2009. The Historic Preservation Program will include amendments to the Ordinance that will provide for the preservation and acceptable removal of historic structures.

STANDARDS OF SIGNIFICANCE

The Project, or follow-on construction based on the approved project, would have a significant impact if it would cause a substantial adverse change in the significance of a historical resources, as defined in Section 15064.5 of the CEQA Guidelines.

ENVIRONMENTAL IMPACTS

Historic resources

Based on information contained in the General Plan EIR, the Northwest Information Center records search and the 2000 Route 238 Bypass EIR/EIS, approval and development of more intensive land uses within the Project area under any other Alternatives could affect identified historic resources or resources which may be eligible for state or federal listing. These resources are identified in the Environmental Setting section of this DEIR. Impacts could include removal of potentially significant dwellings and/or allowing incompatible land uses adjacent to such resources.

These potentially significant impacts would occur under all of the three Alternatives.

Impact 4.4-1 (historic resources). Future development that could be allowed under any of the Alternatives could result in removal of historic dwellings and/or other historic structures or by allowing incompatible land uses near such resources (*potentially significant and mitigation is required*).

The following measure shall be undertaken to reduce this impact to a less-than-significant level.

Mitigation Measure 4.4-2 (historic resources).

- a) **Specific development proposals that involve any structure older than 45 years shall be reviewed by the Hayward Planning Division to ensure consistency with the City's Historic Preservation Program and applicable CEQA Guideline provisions. If substantial changes to a historic resource is proposed, modifications may be required in the design of such project to ensure consistency with the Historic Preservation Program.**
- b) **Future construction adjacent to any identified historic structure shall be complementary to the historic structure in terms of providing appropriate setbacks, consistent design and use of colors, as determined by the Hayward Planning Division.**

4.5 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES

This section of the DEIR addresses the potential for seismic-related hazards and landslides.

Information contained in this section is based on information contained in the General Plan Update EIR, the 2003 Mission-Garin Annexation EIR, the 2000 Route 238 Bypass EIR/EIS and other information presented to the City of Hayward.

ENVIRONMENTAL SETTING

Regional geologic and topographic conditions

Hayward is located on the eastern side of San Francisco Bay, a region of varied geographic composition and topographic elevations. Hayward contained three distinct geologic zones: properties near the Bay in the western portion of the community (the baylands), the major urbanized portion of the community below the elevation of 500 feet above sea level (Bay plain) and the Hayward Hills, which are part of the Diablo Range and have elevations up to 1,500 feet in the eastern portion of Hayward.

The Project area is generally located above the Bay plain area of the community in the foothills. The area exhibits minimal slope conditions in the northerly portion of the area, adjacent to Foothill Boulevard, but transitions to moderate to steep topography south of Grove Way. Between Grove Way immediately south of 2nd Street to approximately 2nd Street, the Project area is generally flat; however, a former large quarry north of Carlos Bee Boulevard contains steep slopes. South of Carlos Bee Boulevard, the Project area has moderate to steep western facing slopes extending to Mission Boulevard. West of Mission, the Project site is generally flat.

Seismic hazards

The Project is located within the seismically active San Francisco Bay Region. A number of major earthquake faults in the region are capable of generating strong earthquakes (magnitudes of 6.0 + on the Richter scale). Major earthquake faults include the San Andreas (approximately 20 miles to the west), Hayward (within portions of the Project area) and Calaveras (approximately 10 miles to the east). A moderate to strong seismic event on the Hayward fault is expected to generate the strongest ground shaking in the project and surrounding area. The East and West Chabot fault traces, located east of the Project area, are currently defined as inactive and are believed to be of ancient local faulting.

Recent data gathered by the United States Geological Survey suggest a 32 percent probability of a 6.7-magnitude earthquake on the Hayward fault by the year 2030. A major earthquake with an 8.0 + magnitude on the Bay area segments of the San Andreas Fault is expected every 100 years. **Figure 4.5-1** indicates the presence of a portion of the Hayward Fault through the Project area, in

an approximate north-south direction. In the northerly portion of the Project area, the Hayward Fault is adjacent to Mission Boulevard. South of Jackson Street, the fault extends in a westerly direction. The Hayward Fault extends through three portions of the Project area. These include portions of the north, central and southern portions of the Project area, which are mapped on **Figure 4.5-1**.

The Figure also shows the boundaries of the State Earthquake Fault Zone, which is one of several zones established around active faults throughout California. An active fault is defined as a fault that has ruptured within the last 11,000 years. The zones were established as required by the Alquist-Priolo Earthquake Fault Zoning Act, whose main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults.

Potential seismic hazards within the Project area include moderate to strong groundshaking and ground rupture. The degree of hazard depends on the location of the seismic epicenter, the magnitude and duration of groundshaking, the nature of topography, the type of building construction and groundwater conditions.

Landslide potential

Portions of the Project area are relatively steep and may be prone to landsliding or seismically induced slope instability. Based on information shown in draft Seismic Hazard Zone maps prepared by the State of California (see **Figure 4.5-1**), several portions of the Project area are shown in areas subject to earthquake-induced landslides. However, no portions of the Project area are identified as being subject to liquefaction. Construction of residential projects of four or more units will be required to investigate and mitigate such hazards identified on the Seismic Hazard Maps.

The General Plan Update EIR notes that the rate of soil creep along the Hayward Fault is approximately 2 inches per every 10 years, which is one of the highest rates of fault creep in the world. Fault creep results in damage to roads, sidewalks, curbs and other permanent structures.

Regulatory framework

General Plan. The following General Plan policies and strategies from the Conservation and Environmental Protection Chapter deal with minimizing seismic and geotechnical risk.

- Seek to minimize risks from geologic and seismic hazards in the siting and design of development. (*Policy 5*)
 - * Continue enforcement of the seismic safety provisions of the Alquist-Priolo Act and the Building Code to minimize earthquake-related hazards in new development, particularly as they relate to high occupancy structures or buildings taller than 50 feet in height. (*Strategy 5.1*)
 - * Work with other agencies to ensure that electric transmission lines, water supply systems, wastewater collection systems, gas mains and oil transmission lines crossing fault lines include provision for automated shut-off valves, switches and equipment

- needed to restore service in the event of a major fault displacement. (*Strategy 5.3*)
- * Assume that any site within 50 feet of any fault zone is underlain by an active fault trace until proven otherwise, and prohibit placement of structures for human occupancy across such trace. (*Strategy 5.4*)

The Land Use Element contains the following goals and strategies.

- Design hillside development to be sensitive to the maintenance of a natural environment through retention of natural topographic features such as drainage swales, streams, slopes, rock outcroppings and natural plant formations. (*Policy 9*)
 - * Avoid development on unstable slopes, wooded hillsides and creek banks. (*Strategy 2*)
 - * Respect natural topography in street layouts and require streets to be only as wide as necessary for public safety and traffic flow in order to minimize grading and disruption of ground cover. (*Strategy 3*)

STANDARDS OF SIGNIFICANCE

The following standards of significance are used to assess potential environmental impacts related to geological, landform and topographic issues of the proposed project:

- Exposure of people and/or property to the risk of harm from geological hazards and/or soil or seismic conditions. This would include surface rupture, strong seismic ground shaking and seismic-related ground failure, including liquefaction and landslides;
- Presence of an Earthquake Fault Zone (formerly Alquist-Priolo Seismic Study Zone), an active fault or an area characterized by surface rupture that could be related to fault activity;
- Development on a soil type that is unstable, or that would become unstable as a result of project implementation, and/or that could potentially result in on- or off-site landslides, subsidence, liquefaction or collapse.

ENVIRONMENTAL IMPACTS

Should the proposed Project be approved and implemented, the following environmental impacts are anticipated: seismic hazards related to ground displacement due to rupture, ground deformation due to fault creep and seismic ground shaking and the potential for landslide impacts of future dwellings and related improvements.

Seismic fault rupture and creep

As noted in the Environmental Setting section, the Bay area is one of the most seismically active areas in the world. The Project area contains a portion of the Hayward Fault running in a north-south direction through the area. Development within the Project area would expose additional people and improvements to seismic risk. Two types of potential fault-related impacts could be expected: ground displacement due to fault rupture and ground deformation due to fault creep.

The risk of ground displacement due to seismic fault rupture to future buildings and residents and visitors to the Project area is anticipated to be a significant impact, given the presence of the Hayward fault through a portion of Project area. A related hazard is fault creep, which is a slow, persistent movement of the ground that results in breakage or bending of buildings, fences, utility lines, roads and other structures.

Although the Hayward Fault trace has been extensively investigated and mapped through a portion of the Project area, including much of the La Vista Quarry property and the McKenzie property, the precise location of the Hayward Fault throughout the remaining properties that constitute the Project area are estimated but the precise locations not specifically known. Impacts related to seismic fault rupture and creep would be greatest under Alternative A, which includes the highest number of dwellings and non-residential square footages. Land uses proposed under Alternative A also includes Medium Density Residential land uses on the south of Carlos Bee Boulevard and north of Eden Greenway that includes a portion of the Hayward Fault and a Low Density Residential land use designation on the easterly terminus of Calhoun Street that is also underlain by a portion of the Hayward Fault and/or suspected fault traces.

Impacts related to seismic hazards would be slightly less for Alternative C than Alternative A, since fewer dwellings and non-residential square footage is proposed under this Alternative. Alternative C includes Medium Density Residential development on the south side of Carlos Bee Boulevard at the Eden Greenway, similar to Alternative A. Also, similar to Alternative A, Alternative C proposed Low Density Residential uses at the eastern terminus of Calhoun Street.

Alternative B would have the fewest and least severe impacts with regard to seismic hazards. This Alternative proposes the fewest number of dwellings and non-residential development in comparison to the other two Alternatives. Alternative B proposes Limited Open Space for the site on the south side of Carlos Bee Boulevard and north of Eden Greenway and a combination of Limited Open Space and Low Density Residential uses for the parcels at the eastern terminus of Calhoun Street.

In addition to impacts to structures, ground fault displacement due to fault rupture could damage future roadways and utility facilities constructed within the Project area to serve new development. Depending on the need during emergency conditions for future roads and/or utilities to serve residents within the project area lying east of the Hayward Fault, this would be a potentially significant impact.

Similarly, fault creep in this portion of Hayward has been identified in the General Plan Update EIR as a significant impact. Fault creep could cause gradual, but potentially significant, damage to a wide range of structures built within the Project area.

It is commonly acknowledged and recognized by State law that maintaining a 50 foot setback from fault traces for habitable structures will reduce risks to human life associated with fault rupture and creep to acceptable levels.

Impact 4.5-1 (seismic fault rupture and fault creep). A major earthquake on the Hayward Fault or other nearby faults could result in ground fault rupture within the Project area

with the potential to damage or destroy existing and future dwelling units, roads, utilities and other structures constructed within the project area. The potential for damage to structures roads and utilities related to fault creep around the Hayward Fault has been determined to be significant in the General Plan EIR on a citywide basis (*potentially significant impact and mitigation required*).

The following mitigation measure is proposed to reduce significant effects of fault rupture and fault creep to an acceptable level.

Mitigation Measure 4.5-1 (seismic fault rupture and fault creep). Site-specific geologic fault investigations shall be undertaken for all new individual development projects under any of the Alternatives within the State-defined Earthquake Fault Zone. Each investigation shall include a confirmation that new habitable structures would not be placed on or within 50 feet of an active fault trace, as defined by state and local regulations. Additionally, all new dwellings, roads and utility lines shall be subject to site-specific geotechnical evaluations with a requirement that all future utility lines that cross faults be fitted with shut-off valves. Implementation of these evaluations shall be required to ensure consistency with the Uniform Building Code and all other applicable seismic safety requirements.

Seismic ground shaking

Future movement along the Hayward Fault or other faults within the region would result in the exposure of people and structures to potentially significant adverse impacts, such as the risk of loss, injury or death caused by strong ground shaking.

The impact of seismically induced ground shaking within the Project area would range in severity depending on the number of structures and associated resident population and visitors to the project area as well as the magnitude and type of seismic event. Alternative A would result in the highest potential impact since the greatest number of residential dwellings and non-residential square footage would be allowed. Alternative C would have slightly less impacts with respect to seismic ground shaking since fewer residences and non-residential development is proposed. Alternative B would result in the least impacts with regard to seismic ground shaking, since the fewest number of dwellings and non-residential space would be constructed with the greatest amount of undeveloped land remaining.

Impact 4.5-2 (seismic ground shaking). During a major earthquake along a segment of the Hayward Fault or one of the other nearby faults, moderate to strong ground shaking can be expected to occur within the Project area. Strong shaking during an earthquake could result in damage to buildings, roads, utility lines and other structures with associated risk to residents, employees and visitors in the area (*potentially significant impact and mitigation required*).

The following mitigation measure is recommended to reduce this impact to a less-than-significant level.

Mitigation Measure 4.5-2 (seismic ground shaking). Site-specific geotechnical investigations shall be required for each building or group of buildings (such as in a subdivision), roads and utility lines constructed in the Project area. Investigations shall be completed by a geotechnical engineer registered in California or equivalent as approved by the City. Design and construction of structures shall be in accordance with the recommendations contained in the reports. Generally, such recommendations will address compaction of foundation soils, construction types of foundations and similar items. Implementation of these evaluations shall be required to ensure consistency with the California Building Code and all other applicable seismic safety requirements.

Seismic ground failure and landslides

Seismically-induced ground failures, which are secondary seismic effects related to soil and bedrock conditions, could occur near buildings and other facilities, such as roads, resulting in injury to people and damage to structures and other improvements.

In addition, given the relatively steep slopes in portions of the Project area, including areas within the former quarry site north of Carlos Bee Boulevard and other moderate to steeply sloping properties within the Project area there is a possibility of landslides, even under non-seismic conditions. Such non-seismic landslides could result in damage to dwellings, roads and other improvements. Similar to anticipated impacts for seismic ground shaking, impacts related to ground failure, both seismic and non-seismic, would be most severe under Alternative A, which proposes the highest number of dwellings and non-residential square footage, and the least severe under Alternative B, which has the most open space and the least number of dwellings located on moderate to steeply sloping terrain.

Impact 4.5-3 (ground failure and landslides). Damage to structures and other improvements within the Project area could occur from landslides and seismically induced ground failure, resulting in damage to improvements and harm to project area residents and visitors (*potentially significant impact and mitigation required*).

The following mitigation measure is recommended to reduce this impact to a less-than-significant level

Mitigation Measure 4.5-3 (ground failure and landslides). Site-specific geotechnical investigations required as part of Mitigation Measure 4.5-2 shall also address the potential for landslides, including seismically induced landslides and include specific design and construction recommendations to reduce landslides and other seismic ground failure hazards to less-than-significant levels. Recommendations included within site-specific geotechnical investigations shall be incorporated into individual grading and building plans for future development.

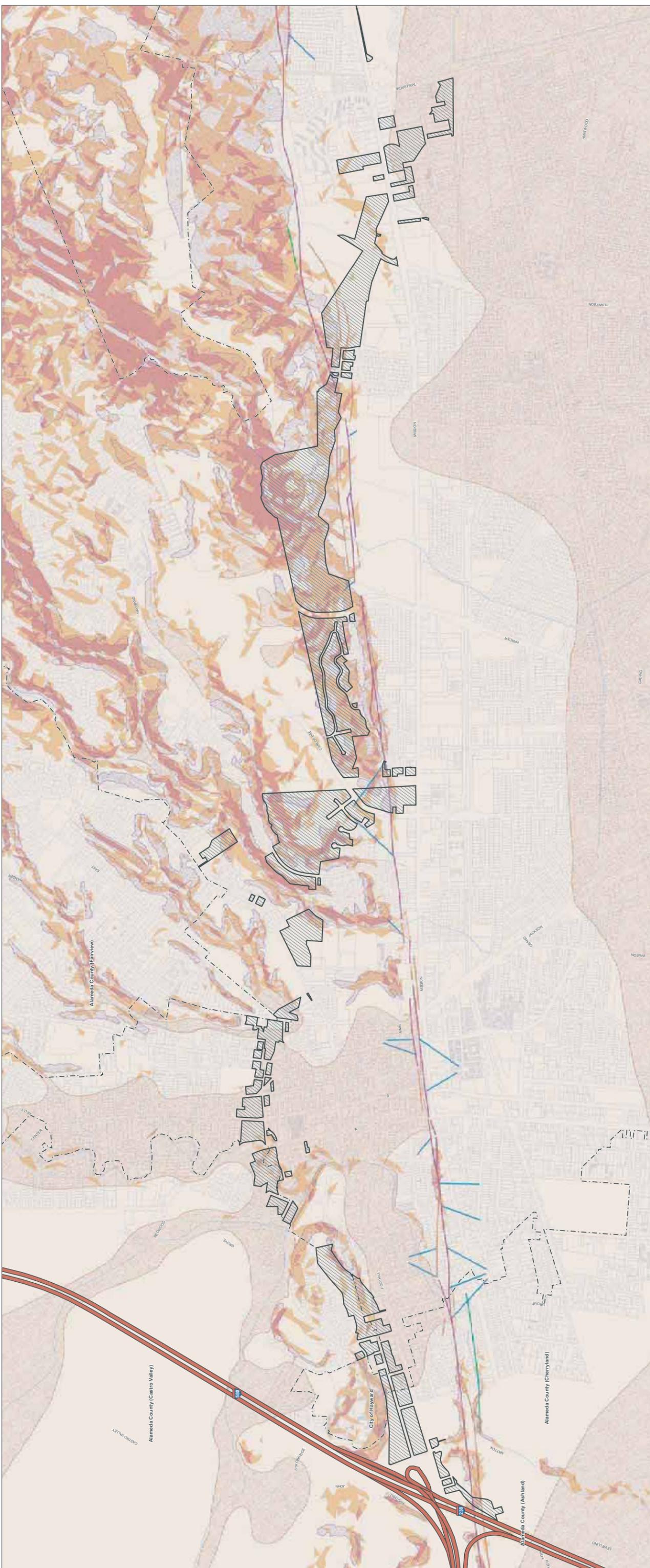


Figure 4.5-1 - Slope Characteristics and Fault Traces
 Route 238 Bypass Land Use Study
 Date: 10/12/2007
 Source: City of Hayward Technology Services; AC Transit; MTC

LEGEND

	Liquefaction Zone		Hayward Fault Traces		Slope Grade
	Landslide Zone		Approximately Located Fault Traces		15%-25%
	Caltrans Property		Concealed Fault Traces		>25%
	City Limits		Inferred Fault Traces		
	I-238 Freeway		Streams		

Community Design + Architecture
 Jerry Haag, Urban Planner
 Dowling Associates
 Mark Thomas & Co.
 Strategic Planning
 Overland, Pacific & Outler

0 500 1,000 2,000 Feet

4.6 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES

This section of the EIR addresses potential soil, groundwater and structural contamination. Information contained in this section is based on data taken from case file documents of the Hayward Fire Department and the California Department of Toxic Substances Control.

ENVIRONMENTAL SETTING

Identified hazardous sites

A recent review of the listing of hazardous sites maintained by the State Department of Toxic Substances Control (DTSC) for Alameda County (the "Cortese List") revealed no such sites within the Project area as of September 12, 2008.

The Hazardous Materials Office of the Hayward Fire Department lists the following open site contamination cases within or adjacent to the Project area:

Table 4.6-1. Identified Contaminated Sites Near Project Area

Address	Site Name
1391 B Street	AT &T
21494 Foothill Blvd.	Union 76 station
21501 Foothill Blvd.	Beacon Station (closed)
21995 Foothill Blvd.	Chevron
28806 Mission Blvd.	La Vista Quarry
29234 Mission Blvd.	Pestana Property

Source: Hayward Fire Department, 2008

Other sites within or adjacent to the Project site may also contain contaminants but have not been reported to the Hayward Fire Department or other appropriate regulatory agencies.

Other sources of hazardous materials

Other sources of potential hazardous materials within the project area are anticipated to include lead based paints that may have been used for existing buildings, petroleum products and/or other solvents that are associated with previous land uses and businesses located in the project area. Also, typical building material for many older structures included asbestos for heating and ventilation insulation which are classified as a hazardous material.

Regulatory framework

Storage, handling and documentation of hazardous materials and waste material are governed by federal, state and local regulations designed to protect human health and the environment.

Agencies involved in the enforcement of these regulations include the U.S. Environmental Protection Agency (EPA), the State of California Department of Toxic Substances Control (DTSC), the California Regional Water Quality Control Board (RWCQB), the Bay Area Air Quality Management District (BAAQMD), the Alameda County Department of Environmental Health and the Hazardous Materials Bureau of the Hayward Fire Department.

Federal regulations are contained primarily in the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). State regulations pertaining to hazardous materials are generally equivalent to or more stringent than federal requirements and are regulated in the California Hazardous Waste Control Act and the California Hazardous Substances Account Act.

The Hayward General Plan contains the following policies and strategies dealing with hazardous materials.

- Work with other agencies to minimize risks associated with the use, storage and transport of hazardous materials. (*Policy 9*)
 - * Continue implementation of the Hazardous Materials Program and enforcement of ordinances on use and storage of hazardous materials. (*Strategy 9.1*)
 - * Maintain a suitable buffer zone between industrial firms involved with hazardous materials and residential uses (*Strategy 9.2*)
 - * Continue collection programs for household hazardous toxic wastes and small business generators. (*Strategy 9.4*)

STANDARDS OF SIGNIFICANCE

The proposed project would be considered to result in a potentially significant impact if it would directly or indirectly create a significant hazard to the public or the environment through reasonably foreseeable upset and accident involving the release of hazardous material into the environment.

ENVIRONMENTAL IMPACTS

Demolition and hazardous air emission impacts

Potential impacts could include the release of asbestos containing materials, lead based paints and other hazardous materials during demolition of existing structures, as older buildings and related improvements are removed to allow for new development.

Impacts related to demolition of existing structures would be greatest under Alternative A, which proposes the greatest number of dwellings and non-residential construction and the smallest amount of open spaces. The fewest impacts related to demolition would result with regard to Alternative B which proposes the fewest number of dwellings and non-residential floor space and would contain the greatest amount of open space.

Demolition of existing structures could potentially result in a health hazard to construction employees and visitors to the area. Removal of older utility installations within the project area could also release potentially hazardous materials into the atmosphere. As identified in the South Hayward BART/Mission Boulevard Concept Design Plan EIR, there is a possibility of naturally occurring asbestos in the soil.

These would be potentially significant impacts.

Impact 4.6-1 (demolition and hazardous air emissions). Demolition and deconstruction of existing buildings, utility facilities and other older structures could release hazardous and potentially hazardous material into the atmosphere including asbestos containing materials, lead-based paints and other hazardous substances, potentially resulting in health hazards to construction employees and local visitors and residents. There is also a potential for naturally occurring asbestos within the portions of the project area east of Mission Boulevard and south of Tennyson Road (*potentially significant impact and mitigation required*).

The following mitigation measure is recommended to reduce potential demolition activities and release of hazardous air-borne substances to a less-than-significant level.

Mitigation Measure 4.6-1a (demolition and hazardous air emissions). Prior to commencement of demolition or deconstruction activities within the project area, project developers shall contact the Alameda County Environmental Health Department, Bay Area Air Quality Management District, Department of Toxic Substances Control and the Hazardous Materials Division of the Hayward Fire Department, for required site clearances, necessary permits and facility closure with regard to demolition and deconstruction and removal of hazardous material from the site. All work shall be performed by licensed contractors in accord with State and Federal OSHA standards. Worker safety plans shall be included for all demolition or deconstruction plans.

Mitigation Measure 4.6-1b (release of asbestos). Prior to commencement of grading activities within the project area, project developers shall conduct investigations by qualified hazardous material consultants to determine the presence or absence of asbestos containing material in the soil. If such material is identified that meets actionable levels from applicable regulatory agencies, a remediation plan shall be prepared to remediate any hazards to acceptable levels, including methods of removal and disposal of hazardous material, worker safety plans and obtaining necessary approvals and clearances from appropriate regulatory agencies, including but not limited to the Hayward Fire Department, Department of Toxic and Substances Control and Bay Area Air Quality Management District.

Soil and groundwater contamination

Based on information contained in the Environmental Setting section, above, a number of identified contaminated sites exist near the project area (see Table 4.6-1). Future development within the project area could uncover deposits of petroleum products, underground storage tanks, chemicals used by previous site activities and other sources of soil or groundwater pollution.

If these are found in significant quantities at thresholds that exceed state and federal standards, this would be a potentially significant impact to existing and future area residents, employees and visitors. This impact would be greater under Alternative A, since a greater number of residents and visitors would be present within the project area under buildout. Potential soil and groundwater impacts would be somewhat less under Alternative C, which includes less development at buildout and least under Alternative B, which includes the least amount of development.

Impact 4.6-2 (potential soil and groundwater contamination). Development and redevelopment of the properties in the project area could uncover deposits of petroleum products, underground tanks and other substances that could contaminate soil and/or groundwater. Contamination impacts would be greatest under Alternative A with the least impact associated with Alternative B (*potentially significant impact and mitigation required*).

The following mitigation is proposed to reduce this impact to a less-than-significant level.

Mitigation Measure 4.6-2 (potential soil and groundwater contamination). Prior to approval of building or demolition permits, project developer(s) shall prepare a Phase I environmental site analysis and, if warranted by such analysis as determined by the Hazardous Materials section of the Hayward Fire Department or other regulatory agency, a Phase II environmental site analysis shall also be conducted. Recommendations included in the Phase II analysis for remediation of hazardous conditions shall be followed, including contact with appropriate regulatory agencies to obtain necessary permits and clearances. No construction (including grading) shall be allowed on a contaminated site until written clearances are obtained from appropriate regulatory agencies.

4.7 HYDROLOGY AND DRAINAGE

ENVIRONMENTAL ISSUES

This section of the EIR addresses potential impacts related to changes in drainage patterns that could result in on- or off-site flooding, exceed the capacity of downstream drainage facilities or place housing within a 100-year flood hazard area.

ENVIRONMENTAL SETTING

Local and regional drainage

The Project area is located both within and west of the Hayward hills. Several natural drainage channels convey stormwater from upper elevations, from and through the Project area and into larger, regional Alameda County Flood Control and Water Conservation District (ACFCWCD) engineered channels in western Hayward for ultimate discharge into San Francisco Bay. A number of regional drainage facilities exist in the Project area, primarily within creeks and streams.

In addition, since portions of the Project area as well as surrounding properties are urbanized, the City of Hayward maintains localized storm drain facilities within the Project area to collect stormwater for conveyance to regional ACFCWCD facilities.

Flood hazards

Portions of the Project area lie within a 100-year flood zone, including several properties lying east of the BART tracks and along Dixon Street south of Valle Vista Avenue and north of Industrial Parkway are identified as lying within Flood Zone A2, which is within a 100-year flood zone (Flood Insurance Rate Map-FIRM Panel Map No. 065033 0020 E, effective February 9, 2000). The FIRM map also shows that the channelized creeks fall within the 100-year flood hazard area; however, none of the creeks are developed.

Figure 10.1 contained in the General Plan DEIR depicts citywide drainage and flooding conditions. This figure is generally the same as shown on the FIRM map.

Figure 4.7-1 shows those portions of the Project area lying within a 100-year flood zone.

Water quality

New construction in the City of Hayward is subject to water quality requirements imposed as a condition of construction. These regulations implement regional water quality regulations imposed by the San Francisco Bay Regional Water Quality Control Board and are consistent with the National Pollution Elimination Discharge System (NPDES) permit granted to all jurisdictions in Alameda County pursuant to the Alameda County Clean Water Program. New

development projects are required to implement Best Management Practices for both construction and post-construction periods that limit periods during which grading occurs, filtration of stormwater prior to entering public drainage systems and similar requirements.

Regulatory framework

General Plan. The City of Hayward General Plan contains the following applicable policies and strategies related to water quality.

The following policies and strategies relate to flood hazards.

- Cooperate with federal, state and county agencies to develop short- and long-term programs that reduce flood hazards in the city. (*Policy 8*)
 - * Implement federal requirements relating to new construction in flood plain areas to ensure that future flood risks to life and property are minimized. (*Strategy 2*)
 - * Work with the Alameda County Flood Control and Water Conservation District to ensure that flood control channels are regularly cleaned and maintained. (*Strategy 3*)

STANDARDS OF SIGNIFICANCE

Based on CEQA Guidelines and the Initial Study prepared for this proposed project, development would have a significant impact with regard to hydrology and water quality if it would result in:

- Substantial alteration of the existing drainage pattern in such a manner that would result in substantial erosion or siltation on or off-site, or in flooding on or off-site;
- Substantial increase in the rate or amount of surface water runoff in a manner that would result in flooding on or off the site and that could exceed existing or planned downstream drainage systems;
- Placement of housing within a 100-year flood hazard area (as mapped by the Federal Emergency Management Agency or per similar flood delineation map);
- Placement of structures within a 100-year flood hazard area which would impede or redirect flood flows.

ENVIRONMENTAL IMPACTS

Should the Project be approved and implemented there could be potential increases in the rate and amount of stormwater runoff from the Project area that could exceed the capacity of existing or planned storm drain facilities to safely accommodate such increases. A portion of the Project area lies within a 100-year flood zone that could cause damage to future building and improvements constructed within a flood zone.

Local and regional drainage

Approval of the proposed Project would increase the amount of stormwater runoff generated from the Project area, since approximately eighty percent of the Project area is vacant and stormwater can percolate into the soil.

Intensification of land uses under any of the Land Use Alternatives would add to the amount of impervious surfaces that could increase both the rate and amount of stormwater leaving the site. The ability of downstream drainage facilities to safely accommodate increased flows, especially during intense storm events when the rate of stormwater flows would be the greatest, could be significantly impacted and would be a potentially significant impact.

Impact 4.7-1 (drainage impacts). Construction of land uses under all of the Land Use Alternatives would increase the amount of stormwater leaving the Project area that would impact the ability of downstream local and regional drainage facilities to safely accommodate increased amounts of stormwater resulting in localized flooding (*significant and mitigation required*).

This impact will be reduced to a level of insignificance through adherence to the following mitigation measure.

Mitigation Measure 4.7-1 (drainage impacts). Site-specific drainage plans shall be prepared for all future construction within the Project area prior to approval of a grading permit, or a building permit in the event a grading permit is not required. Each report shall include a summary of existing (pre-project) drainage flows from the project site, anticipated increases in the amount and rate of stormwater flows from the site and an analysis of the ability of downstream facilities to accommodate peak flow increases. The analysis shall also include a summary of new or improved drainage facilities needed to accommodate stormwater increases. Each drainage plan shall be reviewed and approved by the Hayward Public Works Department staff and Alameda County Flood Control and Water Conservation District staff prior to approval of a grading or building permit.

Flood hazards

Portions of the Project area lie within a 100-year flood zone. Construction of future buildings within a 100-year flood hazard zone could result in substantial damage to future buildings and building occupants in the event of a 100-year storm event. This would be a significant impact.

Impact 4.7-2 (flooding impacts). Construction of buildings or other improvements within that portion of the Project area within a 100-year flood hazard area could result in significant impacts to these improvements and to future residents, employees and visitors (*significant and mitigation required*).

This impact will be reduced to a level of insignificance through adherence to the following mitigation measure.

Mitigation Measure 4.7-2 (flooding impacts). Prior to construction within a 100-year flood hazard area, developers of site-specific projects shall either:

- a) Submit a hydrology and hydraulic study prepared by a California-registered civil engineer proposing to remove the site from the 100-year flood hazard area through increasing the topographic elevation of the site or similar steps to minimize flood hazards. The study shall demonstrate that flood waters would not be increased on any surrounding sites, to the satisfaction of City staff.**
- b) Comply with Section 9-4.110, General Construction Standards, of the Hayward Municipal Code, which establishes minimum health and safety standards for construction in a flood hazard area.**
- c) Apply to the City for a Conditional Letter of Map Revision (CLOMR) to remove the site from the FEMA Flood Insurance Rate Map 100-year flood hazard area.**

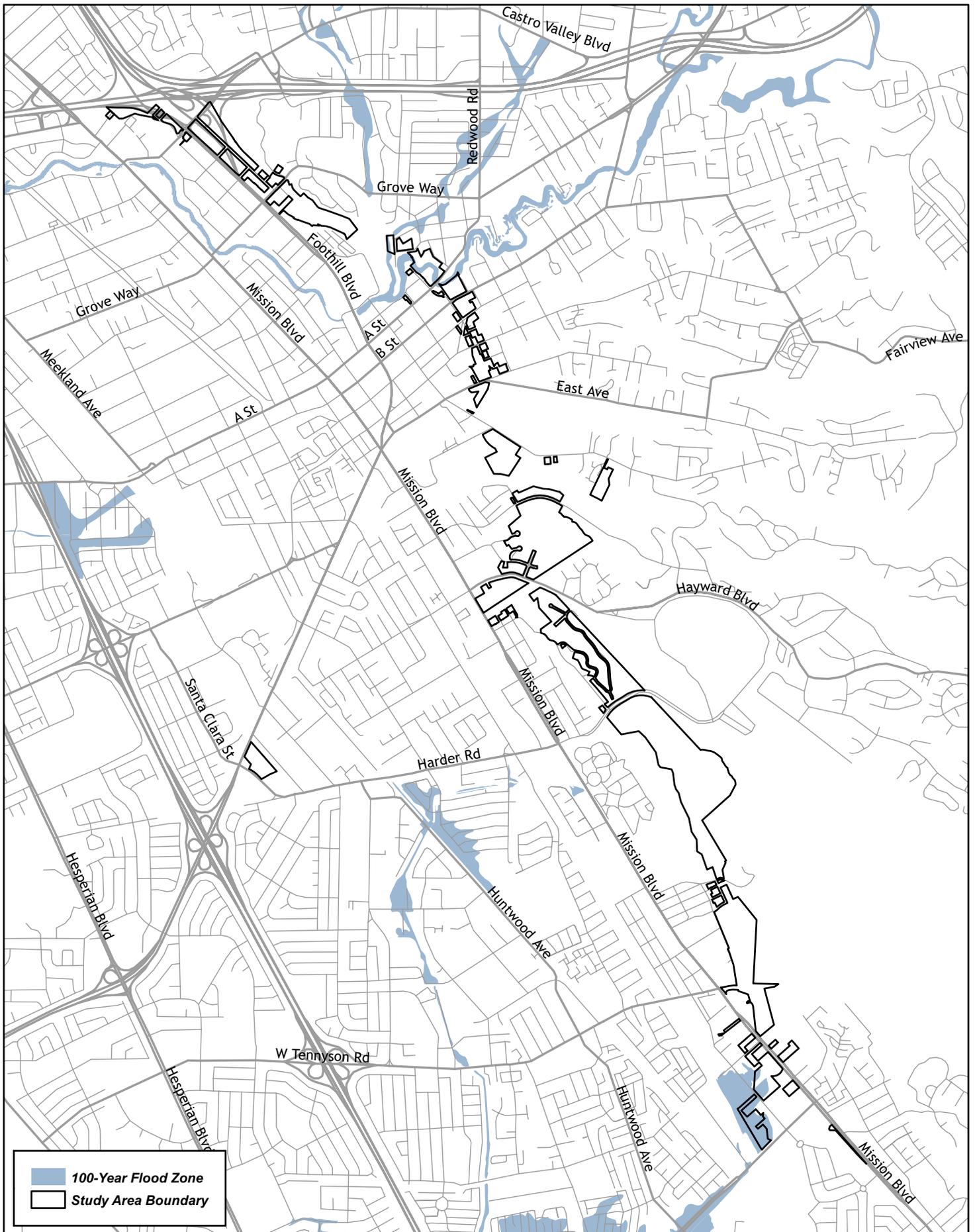


Figure 4.7-1 Flood Hazard Areas

4.8 LAND USE

ENVIRONMENTAL ISSUES

This section addresses potential impacts related to conflicts or inconsistencies with applicable land use plans and policies.

Regulatory framework

Land uses within the project area are governed by a combination of the Alameda County General Plan and Zoning Ordinance, for unincorporated properties, and the City of Hayward General Plan and Zoning Ordinance, for those properties lying within the incorporated limits of Hayward.

Alameda County General Plan. Unincorporated properties located in the northeastern portion of the Project Area are governed by two components of the County's General Plan: The Eden Area Plan and the Castro Valley Plan. These are described below.

Eden Area Plan. The Eden Area Plan was adopted in 1983 and amended through June 1995 to regulate land uses generally located on the east side of Foothill Boulevard north of Grove Way. This component of the County General Plan encompasses unincorporated areas known as Ashland and Cherryland. Properties in this area are owned by Caltrans and planned for the future 238 freeway. The Eden Plan designates this area for "Highway Interchange."

Castro Valley Plan. The Castro Valley Plan was adopted in 1985 to govern uses within the unincorporated portion of Castro Valley, generally located northwest of the Project Area. A number of properties located northwest of San Lorenzo Creek along A Street are governed by this Plan. The Plan designates these properties for Medium and High Density residential uses.

Both of the above portions of the Alameda County General Plan are currently being updated. Land Use designations shown in Alternative A reflect proposed County General Plan land use designations.

Alameda County Zoning Ordinance. The County Zoning Ordinance establishes permitted and conditionally permitted land uses for each individual zoning district within the unincorporated portion of Alameda County. The Zoning Ordinance also includes development standards for each district, regulating building intensity, height, setbacks and similar requirements, as well as requiring on-site parking and loading, signs and similar development provisions.

Hayward General Plan: The Hayward City Council adopted an updated General Plan in 2002. Although the General Plan Land Use Map does show future land uses outside of current City limits, these land use designations and associated policies and strategies are only applicable upon annexation to the City of Hayward.

The General Plan is the officially adopted guide for making decisions concerning the development of the community according to desired goals. The General Plan addresses location of various land uses, density and intensity of land use types, location and widths of roads, community appearance standards, health and safety considerations and similar requirements.

Figure 4.8-1 depicts existing City General Plan land use designations within the Project Area. Current General Plan land use designations would allow development of 2,512 dwellings at the mid-point of respective designations and 257,700 square feet of non-residential (commercial, office and similar uses).

Applicable land use policies contained in the Hayward General Plan include:

- Employ sound planning principles to promote a balance of land uses and achieve a vibrant urban development pattern that enhances the character of the city. (*Policy 1*)
- Support higher intensity and well designed quality developments in areas within 1/2-mile of transit stations and 1/4-mile of major bus routes in order to encourage non-automotive modes of transit. (*Policy 2*)
- Promote transit-oriented development in the Mission/Foothill Corridor in order to help relieve regional congestion and create a distinctively attractive commercial boulevard. (*Policy 5*)
- Design hillside development to be sensitive to the maintenance of a natural environment through retention of natural topographic features such as drainage swales, streams, slopes, rock outcroppings, and natural plant formations. (*Policy 9*)
- Maintain Urban Limit Lines in order to retain an attractive, natural setting and foster a distinctive sense of place. (*Policy 10*)
- Seek to achieve more contiguous boundaries to provide for efficient delivery of public services and create a greater sense of community. (*Policy 11*)

Additional land use strategies have also been adopted as part of the General Plan and can be reviewed as part of the full text of the General Plan document.

North Hayward Neighborhood Plan

The North Hayward Neighborhood Plan contains the following land use policies and strategies:

- Request city-wide policies for neighborhood safety and stability. (*Policy A*)
- Support neighborhood character in land use policies. (*Policy B*)
 - * Build street appeal of Mission Blvd. (*Strategy B.3*)
 - * Establish more consistent Foothill Blvd. land use pattern and theme. (*Strategy B.5*)

- Seek more logical boundaries for City limits (*Policy D*)

Upper B Street Neighborhood Plan

This Neighborhood Plan contains the following polices and strategies relating to land use:

- Recognize existing development in establishing a transition from downtown high intensity areas to low density residential areas. (*Policy 1*)
- Maintain a predominantly single-family residential character with recognition of existing multifamily residential. (*Policy 2*)
 - * East of the Route 238 right-of-way, redesignate Medium and High density areas to Low density and zone for single-family development, with the exception of those properties along “B” Street and properties with multifamily development (*Strategy A.2*)
- Recognize the benefit of the mixed residential/commercial corridor along “B” Street. (*Policy 3*)

Mission Foothills Neighborhood Plan

The Mission Foothills Neighborhood Plan contains the following land use policies and strategies:

- Respect environmental limitations. (*Policy A*)
 - * Restrict development in unstable hill areas south of Second Street and on Bunker Hill, zoning some unbuilt areas Residential-Natural Preservation. (*Strategy A1*)
 - * Setback new development from Ward Creek and Highland Creek to maintain wooded areas and conform with the Alameda County Watercourse Ordinance. (*Strategy A2*)
- Shape residential development for long-term livability. (*Policy C*)
 - * Rezone along Mission Boulevard to allow apartment complex development to provide breaks in strip commercial development and t allow residential development and office use. (*Strategy C1*)
- Foster neighborly commercial development (*Policy E*)

Hayward Highlands Neighborhood Plan

This Neighborhood Plan contains the following policy relating to land use:

- Retain the single family character of the Hayward Highlands area by allowing only appropriate residential infill development which is consistent in size, scale and appearance with existing residential structures, and encourage owner-occupied housing (*Policy 1*)

Mission-Garin Neighborhood Plan:

Applicable land use policies contained in this Neighborhood Plan include:

- Encourage a mixture of housing types in the study area. (*Policy 1*)
- A mixture of dwelling units for homeownership and renter occupancy should be encouraged in the study area. (*Policy 2*)
- Consider executive type housing in the study area. (*Policy 3*)
- Residential development should be encouraged to be processed under the Planned Development (PD) District provisions of the Zoning Ordinance. (*Policy 4*)
- Require high quality design and compatibility with natural and man made surroundings during site plan review of new development. (*Policy 5*)
- Multiple family developments should be required to provide buffering when proposed adjacent to single family developments through the use of lower profile structures, open space buffers, and other barriers and screening materials. (*Policy 6*)
- In order to maximize the open space qualities of the study area, encourage future development to be clustered. (*Policy 7*)
- Residential clusters in the hill area should be placed on slopes under 25 percent to preserve the hillsides and to minimize development hazards. Residential clusters in the hill area should be located so as to preserve natural site features such as tree clusters and natural creeks. (*Policy 8*)
- Within Planned Developments, all open space areas including those that are kept in a natural state will be required to be maintained and kept free of litter, debris and/or vandalism. (*Policy 9*)
- Development approvals will be evaluated based on the impact of additional traffic on key intersections in the study area and surrounding areas. (*Policy 10*)
- During environmental review of future development in the hill area, require an archeological/historic resource component which contains research specific to each site. (*Policy 18*)

Mission Boulevard Specific Plan. The City of Hayward plans to commence the Mission Boulevard Specific Plan in the latter part of 2009. This plan will regulate land uses, circulation and similar items consistent with state law.

Hayward Zoning Ordinance: Similar to the County Zoning Ordinance, the City of Hayward Zoning Ordinance regulates land use developments within the incorporated portion of Hayward.

Copies of all the documents referenced above are available at the Hayward Development Services Department during normal business hours. Copies of documents related to Alameda County General Plan designations and policies and the Alameda County Zoning Ordinance are

available for review at the Alameda County Planning Department, 224 West Winton Avenue, Hayward.

STANDARDS OF SIGNIFICANCE

The following criteria have been used to define instances of a significant land use impact if a project would conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project, including but not limited to a general plan, specific plan, zoning ordinance or similar document, adopted for the purpose of avoiding or mitigating an environmental impact.

ENVIRONMENTAL IMPACTS

This EIR analyzes consistency of the proposed project with respect to appropriate regulatory plans.

The proposed project includes consideration of three land use Alternatives that, if adopted by the City of Hayward would replace existing General Plan land use designations with designations as depicted on the Alternative selected by the Hayward City Council.

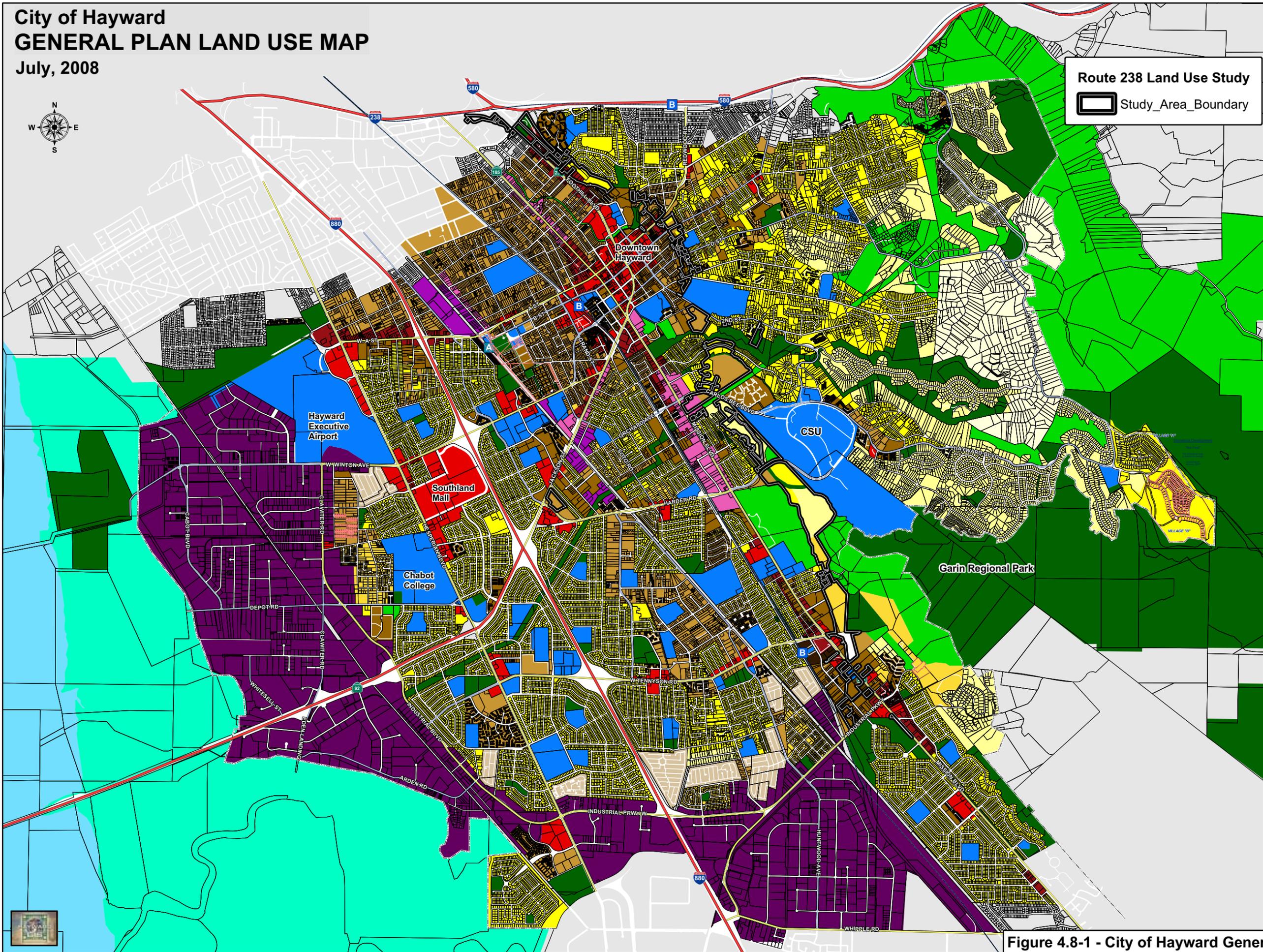
As noted in the Environmental Setting section current General Plan land use designations allow a mix of low, medium and high density residential uses, commercial, retail and office uses, public and quasi-public and open space uses. At build out, the amount of development at the mid-point of the various designations would be 2,512 dwellings and 257,707 square feet of non-residential square feet. The amount of development that could be allowed at buildout under existing General Plan land use designations would be greater than the amount of development designated on Alternatives B and C. In regard to Alternative A, this would allow the most intensive amount of residential development (3,220 dwellings), and would represent an increase of 705 dwellings at buildout. The amount of non-residential development would be the same as currently allowed under the General Plan.

The anticipated increase of 705 dwellings that could be allowed under Alternative A has been evaluated in other sections of this EIR, including but not limited to traffic and circulation, noise, air quality, use of public services, utilities and others. Impacts related to land use consistency with regard to the residential component of Alternative is therefore anticipated to be less-than-significant.

Prior to final approval and construction of individual development projects within the project area, additional land use entitlements would need to be obtained from the City of Hayward and Alameda County. Such entitlements are anticipated to include subdivision maps, site plan approvals, conditional use permit approvals, and design and/or architectural review approvals. Approvals from other local, state and federal regulatory agencies may also be required, depending on the type and location of each proposed project.

City of Hayward GENERAL PLAN LAND USE MAP

July, 2008



Route 238 Land Use Study
 Study_Area_Boundary

LEGEND

LAND USE

- Residential**
- Rural Estate Density (0.2-1.0 units/net acre)
 - Suburban Density (1.0-4.3 units/net acre)
 - Low Density (4.3-8.7 units/net acre)
 - Mobile Home Park (8.7-12.0 units/net acre)
 - Limited Medium Density (8.7-12.0 units/net acre)
 - Medium Density (8.7-17.4 units/net acre)
 - High Density (17.4-34.8 units/net acre)
 - Mission Blvd Density (34.8-55.0 units/net acre)
 - Station Area Density (75.0-100.0 units/acre)

- Commercial**
- Retail and Office
 - General
 - Commercial/High Density Residential

- Downtown-City Center**
- High Density Residential
 - Retail and Office Commercial

- Industrial**
- Industrial Corridor
 - Mixed Industrial

- Open Space**
- Parks and Recreation
 - Limited Open Space
 - Baylands

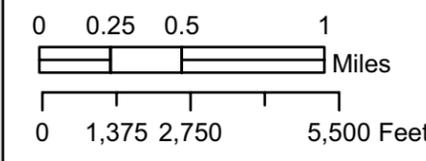
- Public and Quasi-Public

CIRCULATION

- Rail Transportation**
- Railroads
 - Rapid Transit
 - Amtrak Station
 - BART Station

- Streets and Highways**
- Freeways
 - Major Arterials
 - Minor Arterials

- OTHER**
- Urban Limit Line



SOURCE:
City of Hayward Community and
Economic Development Department

Figure 4.8-1 - City of Hayward General Plan Land Use Designations

4.9 NOISE

ENVIRONMENTAL ISSUES

This section addresses potential noise impacts of the project, including short-term construction noise, and long-term permanent noise as well as potential impacts from existing noise sources. This section is based on an acoustic report for the proposed Project prepared by the firm of Rosen, Goldberg, Der & Lewitz dated February 3, 2009. This report is included in Appendix 8.6 and is incorporated by reference into this DEIR.

ENVIRONMENTAL SETTING

Overview of noise concepts

Noise can be defined as unwanted sound and is commonly measured with an instrument called a sound level meter. The sound level meter “captures” sound with a microphone and converts it into a number called a sound level. Sound levels are expressed in units of decibels (dB).

To correlate the microphone signal to a level that corresponds to the way humans perceive noise, the A-weighting filter is used. A-weighting de-emphasizes low-frequency and very high-frequency sound in a manner similar to human hearing. The use of A-weighting is required by most local agencies as well as other federal and state noise regulations (e.g. Caltrans, EPA, OSHA and HUD). The abbreviation dBA is often used when the A-weighted sound level is reported.

Because of the time-varying nature of environmental sound, there are many descriptors that are used to quantify the sound level. Although one individual descriptor alone does not fully describe a particular noise environment, taken together, they can more accurately represent the noise environment. There are four descriptors that are commonly used in environmental studies; the L_{max} , L_{eq} , L_{90} and DNL (or CNEL).

The maximum instantaneous noise level (L_{max}) is often used to identify the loudness of a single event such as a car pass-by or airplane flyover. To express the average noise level, the L_{eq} (equivalent noise level) is used. The L_{eq} can be measured over any length of time but is typically reported for periods of 15 minutes to 1 hour. The background noise level (or residual noise level) is the sound level during the quietest moments. It is usually generated by steady sources such as distant freeway traffic. It can be quantified with a descriptor called the L_{90} which is the sound level exceeded 90 percent of the time.

To quantify the noise level over a 24-hour period, the Day/Night Average Sound Level (L_{dn} /DNL) or Community Noise Equivalent Level (CNEL) is used. These descriptors are averages like the L_{eq} except they include a 10 dBA penalty for noises that occur during nighttime hours (and a 5 dBA penalty during evening hours in the CNEL) to account for peoples increased

sensitivity during these hours.

In environmental noise, a change in the noise level of 3 dBA is considered a just noticeable difference. A 5 dBA change is clearly noticeable, but not dramatic. A 10 dBA change is perceived as a halving or doubling in loudness.

Existing noise levels

The Project area consists of a series of parcels of land that stretch between Interstate 580 to the north and Industrial Parkway to the south. Most of the parcels are east of Mission and Foothill Boulevards. The existing noise environment varies across the Area. The primary noise source in the project area is vehicular traffic on roadways but other sources include BART and occasional aircraft flyovers.

To quantify the existing noise environment, five long-term, 24-hour noise measurements and nine, short-term, 15-minute measurements were made throughout the Project Area. **Figure 4.9-1** depicts each of the measurement locations.

The following discusses each of the measurement locations in greater detail:

Long-term and Short-term Measurement Location 1: The long-term measurement was made along the north side of Foothill Boulevard, between Apple Avenue and Grove Way. The dominant noise source was traffic on Foothill Boulevard, especially traffic utilizing the on-ramp to Interstate 580. The short-term measurement was adjacent to the long-term measurement, 20 feet from the centerline of the near lane of Foothill Boulevard.

Measurement Location 2: The measurement was made inside the Japanese Tea Gardens, near the intersection of Crescent Avenue and 3rd Street. This location represents a quieter area of the City. The dominant noise sources at this location were distant traffic, airplanes, birds and wind noise.

Measurement Location 3: The measurement was located on a utility pole at the intersection of Clay Street and D Street. This location quantifies a typical noise environment in the downtown area of Hayward. The dominant noise source was traffic along D Street. Short-term Measurement 3 was located further south on Clay Street and 50 feet from the centerline of the near lane of D Street.

Measurement Location 4: Measurement was located at the intersection of 2nd Street and Walpert Street, adjacent to Hayward High School. This location quantifies noise generated by traffic on 2nd Street and by Hayward High School. The dominant noise source at this location was traffic on 2nd Street.

Measurement Location 5: The measurement was made on a utility pole 12 feet east of the centerline of the near lane of Mission Boulevard, between Carlos Bee Boulevard and Central Boulevard. The dominant noise source at this location was traffic on Mission Boulevard. An automobile service center that generated intermittent loud noises was

located across Mission Boulevard from Long-term Measurement 5. Two Short-term Measurements were conducted adjacent to the Long-term Measurement: Short-term Measurement 5A was located 50 feet from centerline of the near lane of the north side of Mission Boulevard and Short-term Measurement 5B was located 100 feet from centerline of the near lane of the north side of Mission Boulevard.

Measurement Location 6: The long-term measurement was made on a utility pole along Bunker Hill Boulevard. This location is near a possible vehicular connection between Carlos Bee Boulevard and Bunker Hill Boulevard. Bunker Hill Boulevard currently ends in a cul-de-sac near the measurement location. The existing traffic along Bunker Hill Boulevard is light and the local noise environment is dominated by noise from traffic on Mission Boulevard to the west since there is a clear view of Mission Boulevard from the measurement location. Short-term Measurement 6 was located directly beneath Long-term Measurement 6.

Measurement Location 7: The measurement was located 50 feet south of Harder Road, between Mission Boulevard and West Loop Road. The dominant noise source was traffic on Harder Road. Noise from traffic on nearby Mission Boulevard was reduced by terrain that blocked the line-of-sight from Mission Boulevard to the measurement location.

Measurement Location 8: The long-term measurement was made on a utility pole along the east side of Mission Boulevard between Valle Vista Avenue and Industrial Parkway. The dominant noise source at the measurement location was traffic on Mission Boulevard. The short-term measurement was adjacent to the long-term measurement, 50 feet from the centerline of the near lane of Mission Boulevard.

Measurement Location 9: Short-term Measurement 9 consisted of two simultaneous measurements. Both measurements were located at the southern end of the project site along Industrial Parkway between Huntwood Avenue and Dixon Road. Measurement 9A was 50 feet from the centerline of the near lane of Industrial Parkway and about 310 feet from the BART Tracks.

A typical BART passby generated an L_{\max} of 71 dBA at 9A. There was some acoustical shielding provided by the edge of the elevated BART track structure. Measurement 9B was distant from Industrial Parkway and therefore dominated by noise from BART, which was located 210 feet away from location 9B. A typical BART passby generated an L_{\max} of 79 dBA at location 9B.

Short-term measurements were correlated with the simultaneous measurement at the nearby long-term measurement locations to determine the L_{dn} at the short-term measurement locations. Table 4.9-1 shows the results of the short-term measurements.

Table 4.9-1. Short-term Measurement Results

	Location	Time	A-weighted Sound Level, dBA				
			L _{eq}	L ₈	L ₂₅	L ₅₀	L _{dn} *
1	20' to centerline of near lane of Foothill Blvd between Apple Ave. and Grove Way	5:45 P.M. - 6:00 P.M. (9/16/08)	75	75	73	71	74
2	Center of Japanese Tea Gardens, near intersection of Crescent Ave and 3rd St	3:00 P.M. - 3:15 P.M. (9/17/08)	50	53	48	46	54
3	50' to centerline of the near lane of D Street at the intersection Clay St and D St	3:30 P.M. - 3:45 P.M. (9/17/08)	63	66	63	61	65
4	25 feet to centerline of the near lane of 2nd St, near Intersection 2nd St and Walpert St and Hayward High School	4:00 P.M. - 4:15 P.M. (9/16/08)	65	70	65	61	67
5A	50 ft to centerline of the near lane of Mission Blvd between Carlos Bee Blvd and Central Blvd	1:00 P.M. - 1:15 P.M. (9/16/08)	66	69	68	66	70
5B	100 ft to centerline of the near lane of Mission Blvd between Carlos Bee Blvd and Central Blvd	1:15 P.M. - 1:30 P.M. (9/16/08)	61	64	62	60	64
6	On Bunker Hill Blvd. near cul-de-sac	1:45 P.M. - 2:00 P.M. (9/16/08)	55	57	55	54	56
7	50 ft to centerline of near lane of Harder Rd between Mission Blvd and West Loop Rd	2:15 P.M. - 2:30 P.M. (9/16/08)	59	65	58	52	63
8	50' to centerline of near lane of Mission Blvd between Valle Vista Ave and Industrial Pkwy	2:45 P.M. - 3:00 P.M. (9/16/08)	71	74	73	70	72
9A	50 ft to centerline of near lane of Industrial Pkwy, between Huntwood Ave and Dixon Rd	11:42 A.M. - 12:00 P.M. (9/16/08)	64	68	65	61	68
9B	Adjacent to BART Tracks near southern end of project site	11:45 A.M. - 12:13 P.M. (9/16/08)	62	58	48	45	68

* L_{dn} at short-term measurement locations calculated using simultaneous measurement at long-term locations.

Regulatory Framework

Hayward General Plan. The Conservation and Environmental Protection Chapter of the General Plan contains the following policy and strategies regarding noise:

- The City will seek to protect the public health, safety and welfare against the adverse effects of excessive noise. (*Policy 13*)

- * Provide educational material and assistance to the community regarding noise mitigation, and promote the full disclosure of potential noise impacts within new infill development. (*Strategy 1*)
- * Continue to review new development to assure compatibility with surrounding land uses and compliance with accepted noise standards. (*Strategy 2*)
- * Encourage mitigation of noise through appropriate site planning, building orientation, and building materials. (*Strategy 3*)
- * Cooperate with adjacent jurisdictions and other agencies involved in noise mitigation and work with transportation companies and/or agencies to mitigate noise impacts. (*Strategy 4*)
- * Continue to consider potential noise impacts in evaluating proposals for new transportation facilities, including streets and highways. (*Strategy 5*)
- * Encourage the California Department of Transportation to construct attractive noise barriers along State highways adjacent to noise-sensitive uses. (*Strategy 6*)
- * Investigate methods for decreasing local street noise, such as modification of paving materials, removal of surface irregularities, and synchronization of signals to facilitate smooth traffic flow. (*Strategy 7*)
- * Continue to monitor the effectiveness of noise control programs at the Hayward Executive Airport. (*Strategy 8*)

Appendix N of the Noise Element of the General Plan contains the following noise/land use compatibility standards:

Table 4.9-2. Exterior Noise and Land Use Compatibility Standards

Land Use	Community Noise Level Ldn or CNEL (dB)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential: low density, single family homes, duplex, mobile homes	Under 60	55-70	70-75	75+
Residential: multiple family	Under 65	60-70	70-75	75+
Transient lodging	Under 65	60-70	70-80	80+
Schools, libraries, churches, hospitals	Under 70	60-70	70-80	80+
Auditoria, concert halls	--	Under 70	--	65+
Sports arenas, outdoor sports	--	Under 75	--	70+
Playgrounds and neighborhood parks	Under 70	--	67.5-75	72.5+
Golf courses, riding stables, water recreation, cemeteries	Under 75	--	70-80	80+
Office buildings, businesses, commercial and professional	Under 70	67.5-77.5	75+	--
Industrial. Manufacturing, utilities	Under 75	70-80	75+	--

Source: Hayward General Plan, Appendix N

The interior residential noise exposure level is 45 dBA per the City’s noise standards, as established by the state building code.

Appendix N of the City’s General Plan indicates acceptable adjustments to ambient exterior noise levels on residential uses for periodic, short-term noise events from commercial or industrial activities. For example, for an event that generates 15 decibels (dBA) of noise above the ambient daytime noise level, the maximum cumulative duration of such event allowed during any one-hour period is five minutes

Hayward Noise Ordinance. The Municipal Code for the City of Hayward contains restrictions on construction noise at residential properties. The Noise Ordinance states that construction noise levels should not exceed a “level 6 dB above the local ambient level at any point outside the property plane before the hour of 7:00 AM or after the hour of 7:00 PM daily except on Sundays and holidays. On Sundays and holidays, the restrictions of this subsection shall apply before 10:00 AM and after 6:00 PM.”

California Building Code. The California Building Code requires that new multi-family housing exposed to noise levels in excess of an L_{dn} of 60 dBA have an acoustical study prepared to show how indoor levels will achieve an L_{dn} of 45 dBA. A ventilation or air-conditioning system will be required to provide a habitable indoor environment if windows must be closed to meet the indoor noise requirement.

STANDARDS OF SIGNIFICANCE

A noise impact would be considered significant if it would result in:

- exposure of persons or generation of noise in excess of standards established in the General Plan, municipal code or applicable standards of other agencies; or
- a substantial temporary or permanent increase in ambient noise levels in the project vicinity above ambient levels (considered an increase of 3 dB over existing levels).

ENVIRONMENTAL IMPACTS

The following impacts have been identified with respect to noise.

Land use noise compatibility

Proposed land uses within the Project area would include various types and densities of residential uses, commercial and office uses, open spaces and public/quasi-public uses. Implementation of the proposed land uses in all three Alternatives could lead to new development in areas with ambient noise levels that are or would be in excess of acceptable levels.

Under alternatives A and C, for example, there are proposed residential land uses adjacent to Foothill Boulevard near Measurement Location 8. These proposed residential uses could be exposed to an L_{dn} of 70 dBA or greater which is considered “normally unacceptable” for residential development (see Table 4.9-1). According to the City’s General Plan “normally unacceptable” means that construction would generally be discouraged at these locations but may proceed with a detailed acoustical analysis including specific noise mitigation measures included in the design.

Exposure of future development projects within the Project Area to noise levels that are greater than “normally acceptable” for the proposed land use is considered a potentially significant impact.

Impact 4.9-1 (land use noise compatibility). Development of residential uses under all three of the Alternatives near major noise sources could exceed local and state noise exposure standards (*potentially significant impact and mitigation is required*).

The following measures shall be undertaken to reduce this impact to a less-than-significant level. These measures shall apply to all of the Alternatives.

Mitigation Measure 4.9-1 (land use noise compatibility). A site-specific noise study shall be performed for future individual development proposals within the Project area adjacent to major roadways or other noise sources, as determined by the Development Services Director to determine compatibility with the existing and future noise environment and applicable noise regulations. If noise levels exceed applicable standards, then noise

reduction measures shall be incorporated into the project design to ensure consistency with local and state noise standards. Noise reduction measures could include but would not be limited to noise barriers and site orientation for outdoor spaces and sound rated building constructions for indoor spaces. The analysis must consider the following criteria and guidelines:

- **General Plan Policies for Noise including Appendix N of the General Plan which contains Noise Guidelines for Review of New Development)**
- **General Plan EIR Mitigation Measure 7.3: Project-Specific Noise Analysis/Abatement State Building Code, Chapter 1207 (insulation from exterior noise in new residential construction).**

Increased traffic noise due to Project

There would be increased traffic activity along local and arterial roads from the development of various land uses associated with the Project and future growth in other portions of Hayward and the larger region. According to Table 4.9-3, a majority of the increase in noise due to traffic (up to 2.8 dBA) would occur as a result of future growth in other areas. The Project would contribute less than 0.2 dBA to the future traffic noise levels, assuming maximum development under Alternative A. These relatively small increases would not cause a significant impact since they would be less than the 3 dBA threshold of significance.

Table 4.9-3. Existing and Future Noise Levels

Street	Segment	L _{dn} in dBA 50 feet from Roadway Centerline			Future Traffic Increase, L _{dn} in dBA (Project Contribution)
		Existing	Future Without Project	Future With Project	
Foothill Blvd.	North of Mattox Rd	68.4	69.9	69.9	1.5 (0.0)
	Mattox Rd to Grove Way	70.9	72.9	72.9	2.0 (0.0)
	Grove Way to A St	71.4	73.2	73.2	1.9 (0.0)
	A St to B St	71.2	72.2	72.2	1.0 (0.0)
	B St to D St	71.7	72.8	72.9	1.1 (0.0)
	D St to Jackson St	72.6	72.5	72.6	0.0 (0.0)
Mission Blvd	Foothill Rd to Fletcher Ln	71.1	72.5	72.7	1.4 (0.1)
	Fletcher Ln to Highland Blvd	71.3	73.0	73.1	1.7 (0.1)
	Highland Blvd to Carlos Bee Blvd	71.0	72.7	72.8	1.6 (0.1)
	Carlos Bee Blvd to Berry Ave	72.1	73.8	73.9	1.7 (0.1)
	Berry Ave to Harder Rd	71.9	73.5	73.6	1.6 (0.0)
	Harder Rd to Sorenson Rd	72.6	74.1	74.2	1.5 (0.1)
	Sorenson Rd to Jefferson St/Calhoun St	72.6	73.9	74.0	1.3 (0.1)
	Jefferson St/Calhoun St to Hancock St	72.5	73.7	73.7	1.2 (0.0)
	Hancock St to Tennyson Rd	72.5	74.0	74.0	1.4 (0.0)
	Tennyson Rd to Valle Vista Ave	72.0	73.4	73.5	1.4 (0.0)
	Valle Vista Ave to Industrial Pkwy West	72.1	73.6	73.6	1.5 (0.0)
	South of Industrial Pkwy West	72.0	73.5	73.5	1.5 (0.0)
Dixon Rd	North of Tennyson Rd	57.4	59.3	59.5	1.9 (0.2)
	Tennyson Rd to Valle Vista Ave	60.0	62.1	62.3	2.1 (0.2)
	Valle Vista Ave to Industrial Pkwy West	58.7	61.1	61.3	2.4 (0.2)
	South of Industrial Pkwy West	54.6	55.9	55.9	1.3 (0.0)
	Tennyson Rd	64.9	66.6	66.7	1.7 (0.0)
Valle Vista Ave	Mission Blvd to Dixon Rd	53.5	56.4	56.6	2.8 (0.2)
Industrial Pkwy West	Mission Blvd to Dixon Rd	65.5	66.8	66.8	1.3 (0.0)

Source: RGDL, 2009

Depending upon the type and intensity of development that could occur at individual parcels, there may be instances where the future traffic noise increase due to an individual project would be greater than 3 dBA. This is more likely to occur on parcels of land located farther from the

major arterials than at parcels along Mission and Foothill Boulevard, since these areas are generally quieter. Future traffic noise increases due to the project are considered a potentially significant impact.

Impact 4.9-2 (traffic noise impacts). Noise generated by vehicular traffic associated with future individual development projects under all Alternatives could result in exceedances of local and state noise exposure standards (*potentially significant impact and mitigation is required*).

The following measures shall be undertaken to reduce this impact to a less-than-significant level. These measures shall apply to all of the Alternatives.

Mitigation Measure 4.9-2 (traffic noise impacts). Consistent with Mitigation Measure 7.4 of the City of Hayward General Plan Update EIR, an acoustical study shall be performed for each development proposal within the Project area under all of the Alternatives that has potential to significantly increase existing noise levels.

If it is determined that a proposed development would result in a substantial increase in ambient noise levels along nearby roadways, the study shall identify and implement noise abatement measures which will reduce project-related noise effects to a level consistent with City and State standards. Such measures could include the installation of noise barriers such as berms or sound walls).

Operational noise impacts

Activities at proposed residential, commercial, public and other project developments have the potential to generate noise that would impact adjacent land uses. Examples of operational noise sources include loading docks, heating and cooling equipment and outdoor recreation.

Operational impacts would be greater under Alternatives A and C that include more dwellings and a greater amount of non-residential use than under Alternative B that includes fewer dwellings that could be impacted by operational noise. Operational noise affecting existing and proposed land uses is considered to be a potentially significant impact.

Impact 4.9-3 (operational noise impacts). Noise generated by the day-to-day operation of land uses within the Project area could result in exceedances of local and state noise exposure levels. Operational noise impacts would be greatest under Alternatives A and C and less under Alternative B (*potentially significant impact and mitigation is required*).

The following measures shall be undertaken to reduce this impact to a less-than-significant level. These measures shall apply to all of the Alternatives.

Mitigation Measure 4.9-3 (operational noise impacts). Consistent with Mitigation Measure 7.2 of the City of Hayward General Plan Update EIR, the City of Hayward shall review individual projects using the City's General Plan as guidance to determine whether or not an operational noise source would generate significant noise impacts. Noise reduction measures including but not limited to setbacks, site plan revisions, operational constraints,

buffering, and sound insulation shall be incorporated into final development plans to reduce operational noise to a less than significant level.

Temporary construction noise impacts

Construction noise has the potential to generate significant, temporary noise increases at adjacent noise sensitive land uses. Typically, construction generally occurs in four phases. These are grading, foundation work, framing and building construction. In some instances, existing structures or other site improvements may be demolished to accommodate new land uses. Generally, the noisier phases are demolition, grading and foundation work where heavy diesel machines such as front end loaders or bulldozers are used. Table 4.9-4 summarizes some typical construction noise levels.

Table 4.9-4. Typical Construction Equipment Noise Levels

Equipment	L _{max} (dBA) at 50 feet
Backhoe	78
Compactor	83
Compressor	78
Concrete Mixer Truck	79
Concrete Pump Truck	81
Crane	81
Bulldozer	82
Dump Truck	76
Excavator	81
Front End Loader	79
Generator	81
Grader	85
Hoe Ram	90
Jackhammer	89
Paver	77
Pneumatic Tools	85
Impact Pile Driver	101
Roller	80
Scraper	84
Tractor	84
Warning Horn	83
Welder/Torch	74

Source: FHWA Roadway Construction Noise Model, 2006

Many of the future individual development projects that would be allowed under the Alternatives would be located near or adjacent to other developed parcels and there is the potential for significant short term and temporary noise increases. Impacts from construction activities would be greatest under Alternative A which includes the highest number of dwellings and least under Alternative B that includes the fewest amount of development.

Impact 4.9-4 (construction noise impacts). Noise generated by demolition of existing improvements and construction of new dwellings within the Project area could result in short-term, temporary noise levels that would exceed City noise standards. Construction noise impacts would be greatest under Alternatives A and C and less under Alternative B (*potentially significant impact and mitigation is required*).

The following measures shall be undertaken to reduce this impact to a less-than-significant level. These measures shall apply to all of the Alternatives.

Mitigation Measure 4.9-4 (construction noise impacts). The City shall require reasonable construction practices for individual development projects within the Project area, consistent with Mitigation Measure 7.1 of the City of Hayward General Plan Update EIR. Measures should include but are not limited to the following:

- **Requiring all equipment to have mufflers and be properly maintained;**
- **Limiting the amount of time that equipment is allowed to stand idle with a running engine;**
- **Shielding construction activity and equipment from nearby noise sensitive uses by appropriate construction phasing, using existing buildings and structures as noise shields, construction of temporary noise barriers and similar techniques; and**
- **Providing advance notice to nearby residents of major noise activities.**

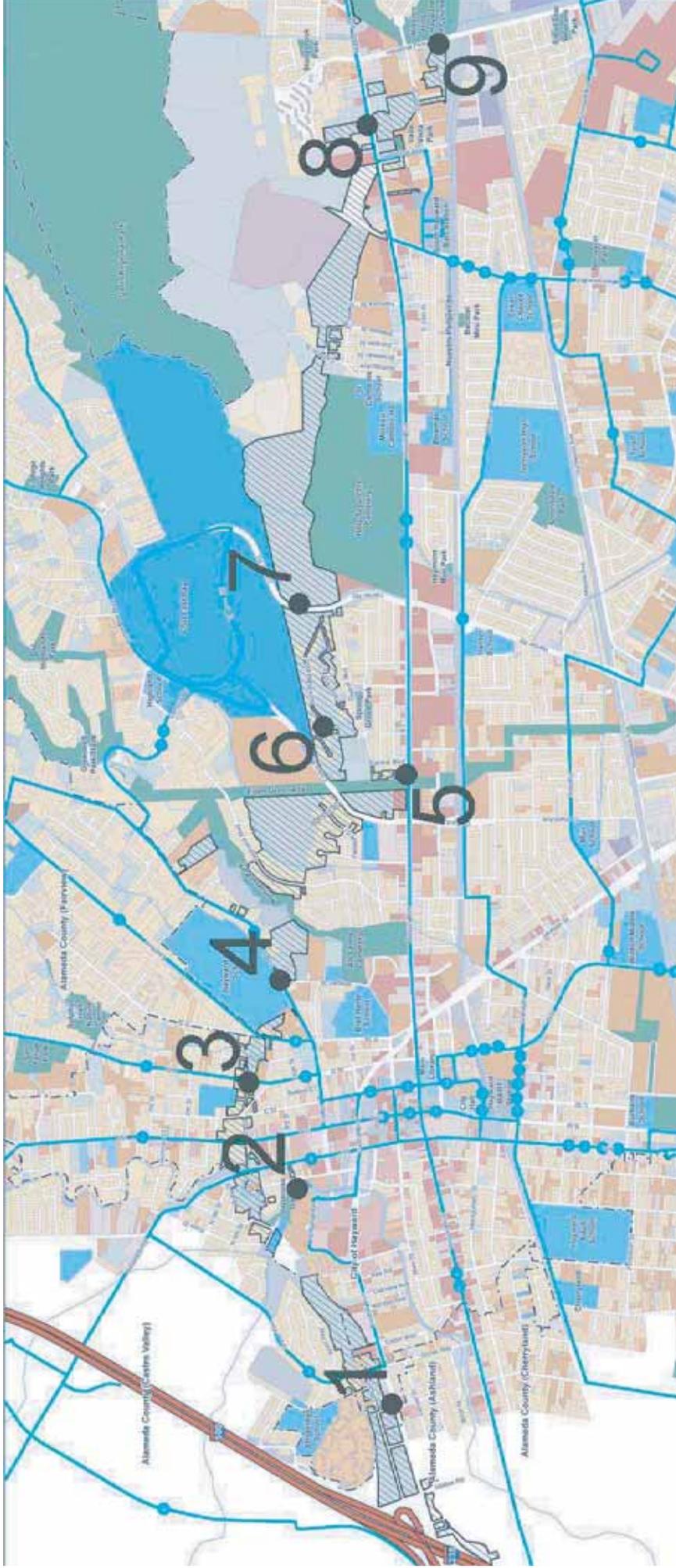


Figure 4.9-1 – Noise Monitoring Locations
Route 238 Bypass Land Use Study

