

3.1 Land Use

This section contains an environmental setting and analysis of the land uses in the Castro Valley urban area.

ENVIRONMENTAL SETTING

PHYSICAL SETTING

Castro Valley's Urban Area encompasses 6,014 acres, most of which are devoted to residential uses (see Figure 3.1-1, Existing Land Uses). Single-family residential uses occupy 2,818 acres with another 425 acres used for multi-family development and 11 acres of mobile home parks. Commercial, medical/dental services and industrial/auto-related uses take up approximately 4 percent of Castro Valley's land area. Public and quasi-public land uses, including schools, libraries, and churches, comprise about 3 percent of the land area and 12 percent is occupied by parks and open space. About 294 acres, or 5.2 percent, of the land in Castro Valley is vacant.

Existing Land Use Patterns

Interstate 580 divides Castro Valley into northern and southern sections; Lake Chabot Road and Redwood Road provide the major north-south connections. Crow Canyon Road is the other major arterial running generally east-west and connecting central Castro Valley to San Ramon and Contra Costa County. Land use in Castro Valley is primarily residential. Commercial uses are concentrated along Castro Valley Boulevard, along Redwood Road and Grove Way, and in several neighborhood shopping centers. Public and quasi-public uses are spread throughout the area, adjacent to both commercial and residential uses. Table 3.1-1 shows the amount of the existing land uses in Castro Valley.

Residential

Housing is the predominant land use in Castro Valley and the area's residential neighborhoods are its most prominent features (see Table 3.1-1). As of the 2000 Census, more than 70 percent of the units were single family detached structures and almost 8 percent were attached or detached duplex units. About 4,200 units were in multi-family buildings, just over 2,000 in buildings with 3 to 19 units and about 2,200 in structures with 20 or more units. About two percent of the housing units are mobile homes, most of which are in nine mobile home parks.

The multi-family units, townhouses, and mobile homes are located closer to the Central Business District (CBD), between Somerset and Castro Valley Boulevard, along Redwood Road, and south of I-580 along Grove Way. Seventy-eight percent of all units were constructed before 1980, the majority of which were built between 1940 and 1959. Approximately 11 percent were built during the 1980s and another 10 percent during the 1990s.

Commercial

Commercial uses are concentrated in the Central Business District along Castro Valley Boulevard, on Lake Chabot Road north to Eden Medical Center, and along Redwood Road south to the Hayward city limits. Except for some commercial uses along Castro Valley

Boulevard and a few parcels on Grove Way near Hayward, most of the commercial uses occupy relatively small parcels.

Commercial uses in the CBD include a mixture of local and neighborhood retail, commercial recreation, office, auto-related services, and self-storage. Castro Village, one of the oldest shopping centers in Alameda County, is a favorite retail center in the central part of the CBD on Castro Valley Boulevard. A variety of health and dental care services, including offices, laboratories, and convalescent facilities, are located on Lake Chabot Road in the vicinity of the Eden Medical Center. Some of these uses occupy small buildings that were converted from residential use and are tucked in between larger residential and health service uses.

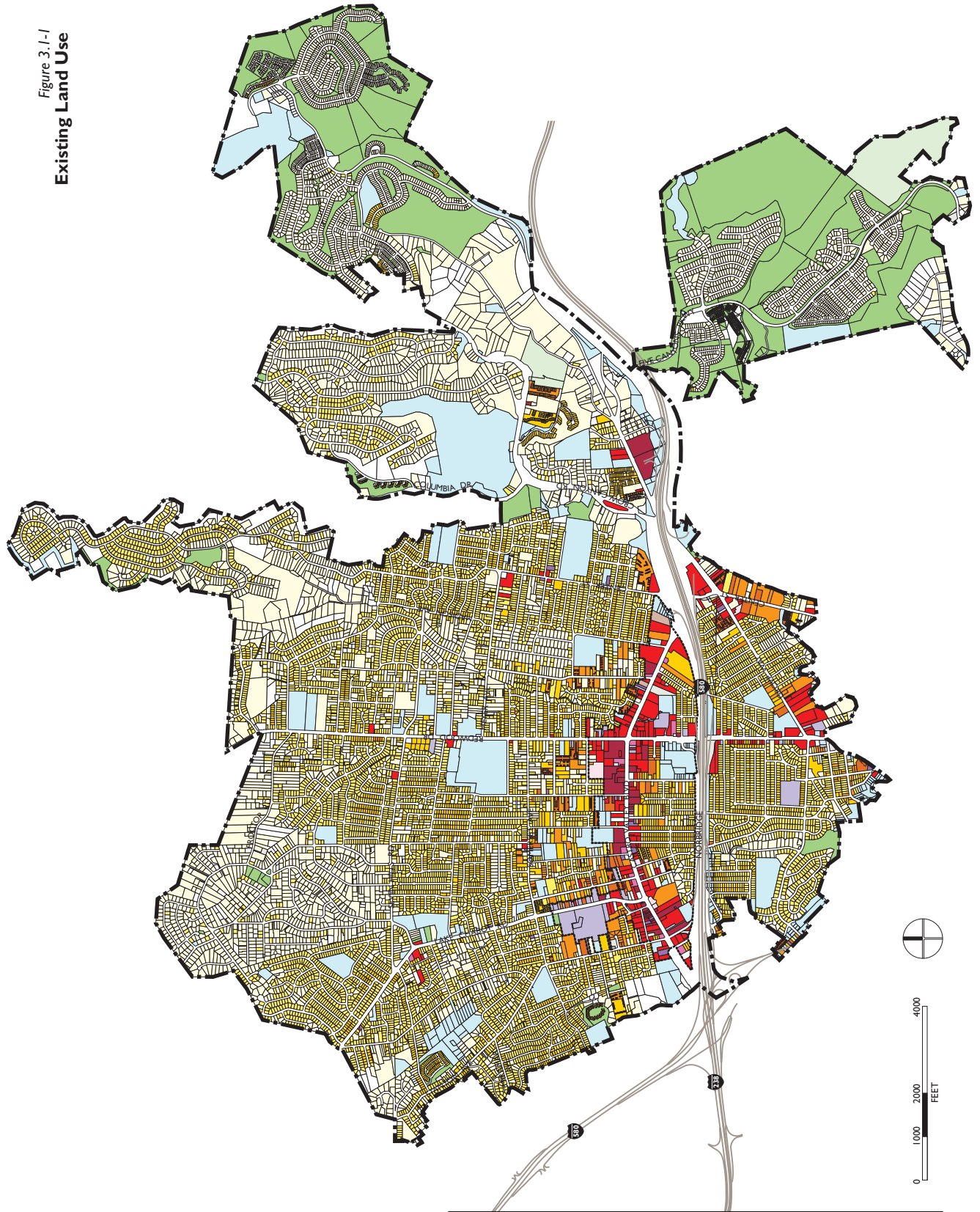
Commercial uses outside the CBD include a number of commercial corners and small shopping areas that offer a limited variety of neighborhood serving retail sales and services.

Table 3.1-1: Castro Valley Existing Land Use

<i>Land Use</i>	<i>Total Acres</i>	<i>Percent of Total</i>
Residential	3,246.4	53.97%
<i>Large Lot Single-Family Residential</i>	1,658.5	27.57%
<i>Single-Family Residential</i>	1,159.3	19.27%
<i>Townhomes and Low Density Apartments</i>	286.9	4.77%
<i>Medium Density Apartments</i>	89.6	1.49%
<i>High Density Apartments</i>	40.2	0.67%
<i>Mobile Home Parts</i>	11.9	0.20%
Commercial	202.3	3.36%
<i>Automotive Service, Sales, and Parts</i>	5.6	0.09%
<i>General Commercial (Personal, Financial, and Real Estate Services)</i>	98.8	1.64%
<i>Light Industrial & Storage</i>	5.5	0.09%
<i>Medical/Dental Services</i>	37.5	0.62%
<i>Office</i>	6.2	0.10%
<i>Restaurants and Entertainment</i>	10.2	0.17%
<i>Retail Commercial</i>	38.5	0.64%
Mixed Use	5.2	0.09%
Rural Agriculture	17	0.28%
Other/Unclassified	45.6	0.76%
Park/Open Space	732.6	12.18%
Public/Quasi-Public	553.2	9.20%
Streets and Roads	946.7	15.74%
Vacant	265.6	4.42%
Total	6,014.80	100.00%

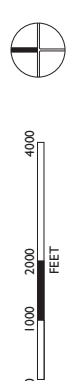
.Source: Alameda County Community Development Agency, 2003.

Figure 3.1-1
Existing Land Use



	Residential 0-4 du/ac
	Residential 5-8 du/ac
	Residential 9-17 du/ac
	Residential 18-30 du/ac
	Residential over 30 du/ac
	Mobile Homes
	General Commercial
	Retail Commercial
	Automotive Commercial & Storage
	Mixed Use
	Office
	Medical/Dental
	Public/Institutional
	Park/Open Space
	Other/Unclassified
	Vacant
	Castro Valley General Plan Area

Source: Alameda County Community Development Agency, 2004, and Dyett & Blatta fieldwork.



REGULATORY SETTING

Alameda County General Plan

Land use decisions within the Castro Valley planning area are governed by a variety of area, sub-area, and countywide plans and regulations. As an unincorporated area, Castro Valley is subject to the County's General Plan. State law allows a General Plan to be adopted as a series of Area Plans, such as those Alameda County is producing for Castro Valley and the Eden area. Area Plans must conform to all countywide general plan elements and be consistent with one another. Measure D, the initiative approved by County voters in 2000, amended these Area Plans by establishing the County's Urban Growth Boundary (UGB) and adding countywide policies, which regulate the use of land outside the UGB.

Land use decisions within the Castro Valley planning area are governed by a variety of area, sub-area, and countywide plans and regulations including the General Plan; specific plans for the Central Business District and the Upper Madison Avenue/Common Road Area; the Eden Area Redevelopment Plan, which is applicable to about 705 acres within the Castro Valley planning area; and the Alameda County Zoning Ordinance (Title 17, Alameda County General Code). All of the specific plans, the redevelopment plan, and the zoning regulations applicable to the Castro Valley planning area must be consistent with the Castro Valley General Plan and the countywide General Plan elements. As such, they may need to be amended after the proposed Plan is adopted. In addition, the Castro Valley General Plan must be consistent with the land use plans for adjacent unincorporated areas of Eden and Fairview and other countywide General Plan elements.

Castro Valley General Plan (1985)

The existing 1985 Castro Valley Plan is the third comprehensive amendment to the community plan that the County Board of Supervisors first adopted in 1961 as the 'Master Plan for Castro Valley.' The 1985 Plan covered a larger area than the proposed new General Plan, extending farther north and south of the current planning area to encompass the San Leandro and Palomares Creek watersheds, which are now outside the Urban Growth Boundary that was established by voters in 2000. The 1985 Plan lists 28 goals for the planning area, covering topics from urban design/community character to public services and from transportation to health and safety, including the following:

- To provide for community identity;
- To provide unique and attractive focal point for the community;
- To maintain the predominantly low-density residential character of the community;
- To provide an adequate level of library and informational services;
- To provide for employment opportunities;
- To protect natural scenic features.

The goals are augmented by objectives, principles, and implementation provisions, which are divided into five major categories: 1. General Development Policies; 2. Housing and Residential

Land Use Policies; 3. Commercial Land Use Policies; 4. Public Utilities, Facilities and Services Policies; and 5. Policies for Adjoining Urban Areas. The zoning regulations for Castro Valley must follow its General Plan.

Central Business District Specific Plan (1993)

The 1993 Central Business District Specific Plan (CBDSP) updated the 1983 CBDSP, which was adopted to implement a mandate in the 1978 Castro Valley Plan. The purpose of the Specific Plan is “to guide future public and private actions within the Castro Valley Central Business District.” After identifying issues, problems, community concerns, and preferences, it goes on to set goals and establish policies and regulations to ensure implementation. The Plan Area is divided into 11 sub areas within which four Land Use Groups—intensive retail commercial; low intensity, predominantly motor vehicle-oriented retail and service commercial, wholesale commercial; offices; and high density residential—are either permitted or prohibited. See Figure 3.1-4 and 3.1-5.

The Specific Plan is intended to implement the Castro Valley General Plan policies; its policies serve as zoning regulations and design guidelines. Where the CBDSP is silent, provisions of the Alameda County Zoning Ordinance apply. They intend to increase the competitiveness of the CBD and expand the range of goods and services located there in order to create a lively, pedestrian-oriented town center. The design guidelines adopted in 1993 incorporate the CBDSP design policies.

The CBDSP was amended in June 2005 to conform to the County’s 2003 Housing Element update. This amendment ensures the County has sufficient sites to accommodate its regional housing needs within the urban growth boundary set by Measure D. The changes included:

- adding a new high density residential category (Land Use Group E) allowing 40 to 60 units per acre that applies to the area around the BART station and generally west of Redwood Road (portions of Subareas 8, 9, and 10); and
- a zoning change to 17 regular parcels and one condo parcel on the north side of Jameson Way, east of Woodbine Court and west of Redwood Road, to allow one housing unit per 1,500 square feet of lot area (or 29 units per acre).

Specific Plan for Areas of Environmental Significance (1977)

This is a countywide specific plan that creates a Site Development Review process for designated areas of environmental significance. These areas are those throughout the county in riparian areas—where a watercourse forms the environmental focal point—and along the scenic route corridors identified in the County’s Scenic Routes Element. The specific plan is concerned with development guidelines and does not regulate permitted land uses. The County’s upcoming new Resource Conservation, Open Space, and Agriculture (ROSA) elements, described below, will replace this plan.

Specific Plan for the Upper Madison Avenue/Common Road Area (1975)

In 1975, the County adopted a Specific Plan for the steep-walled Y-shaped valley extending north from Seaview Avenue between the conventionally developed streets of Trenton Drive and Center Street. The plan for the upper Madison Avenue/Common Road area calls for one acre lots in both the lower and upper canyon areas and proposes improvements and regulations governing street access, drainage, water, sewer, and geology required for such development. Policies to preserve existing features and implementation procedures complete the document.

The County is currently updating the plan, under the new title of the Madison Area Specific Plan, in order to strengthen its provisions to protect the character of the area. The substantive changes proposed include new policies to preserve existing geologic features, regulations regarding site development review, the encouragement of area residents to form homeowner maintenance associations to manage common areas and infrastructure, and design guidelines that aim to reduce peak stormwater runoff.

Eden Redevelopment Plan—Castro Valley CBD subarea

The Eden Redevelopment Plan was adopted by Alameda County in 2000. Its goal is to reduce blight and stimulate development within its designated area, which covers portions of the western urban area of Eden Township in the Castro Valley, San Lorenzo, Cherryland, Foothill, and Mt. Eden communities. The redevelopment district is divided into subareas representing these communities. Tax revenues from each subarea are spent within the same subarea, with a portion of the subarea's property taxes reinvested to implement the plan. It is centered along Castro Valley Blvd, Grove Way and Redwood Blvd between Center Street and the I-580/238 interchange. The primary redevelopment focus for the Castro Valley subarea is the revitalization of the commercial core along Castro Valley Boulevard.

The Agency must adopt a 5-year Implementation Plan to identify specific past and proposed future activities of the Agency. The most recent Implementation Plan was adopted for the redevelopment area in 2000. A new Redevelopment Strategic Plan is being prepared concurrent with the General Plan Update process; it is meant to provide implementation details for the execution of the General Plan within the redevelopment district, so it must be consistent with the Castro Valley General Plan. The Strategic Plan will determine priority catalyst projects, develop a detailed streetscape design, and prepare a retail attraction strategy for the Castro Valley Redevelopment Area. Its objectives are to create a downtown where people want to go and spend time, an environment that will support economic vitality, and a pedestrian friendly main street atmosphere.

Adjacent Area Plans

Eden Area Plan

The Eden Area Plan covers the unincorporated land in western Alameda County between the cities of San Leandro and Hayward and to the west of the Castro Valley planning area. The Plan originally included Castro Valley, but its authority was superseded by the 1985 Castro Valley General Plan. The Plan was adopted in 1981—as the General Plan for the Central Metropolitan, Eden, and Washington Planning Units—and is in the process of being updated by the County. The Eden Area Plan's policies on land use, circulation and parks bear a

relationship to the proposed Castro Valley General Plan. The County has prepared a proposed new Eden Area General Plan that was under review as of this writing.

Fairview Area Specific Plan

The Fairview Area Plan was adopted by the County in 1997. Fairview is immediately adjacent to the Castro Valley planning area, located to its southeast, and includes the Five Canyons area, which is now part of the Castro Valley General Plan area. The Fairview Area Plan sets residential densities, establishes requirements for private street design, and lays out development regulations meant to preserve natural features and avoid problems associated with geology, erosion, flooding, water supply, noise, and fire hazards.

Alameda County General Plan

Alameda County has adopted countywide elements for unincorporated areas covering Housing, Resource Conservation, Open Space, Noise, Seismic Safety, and Safety. As discussed below, the County is currently revising the Open Space and Resource Conservation Elements. See Figures 3.1-2 and 3.1-3.

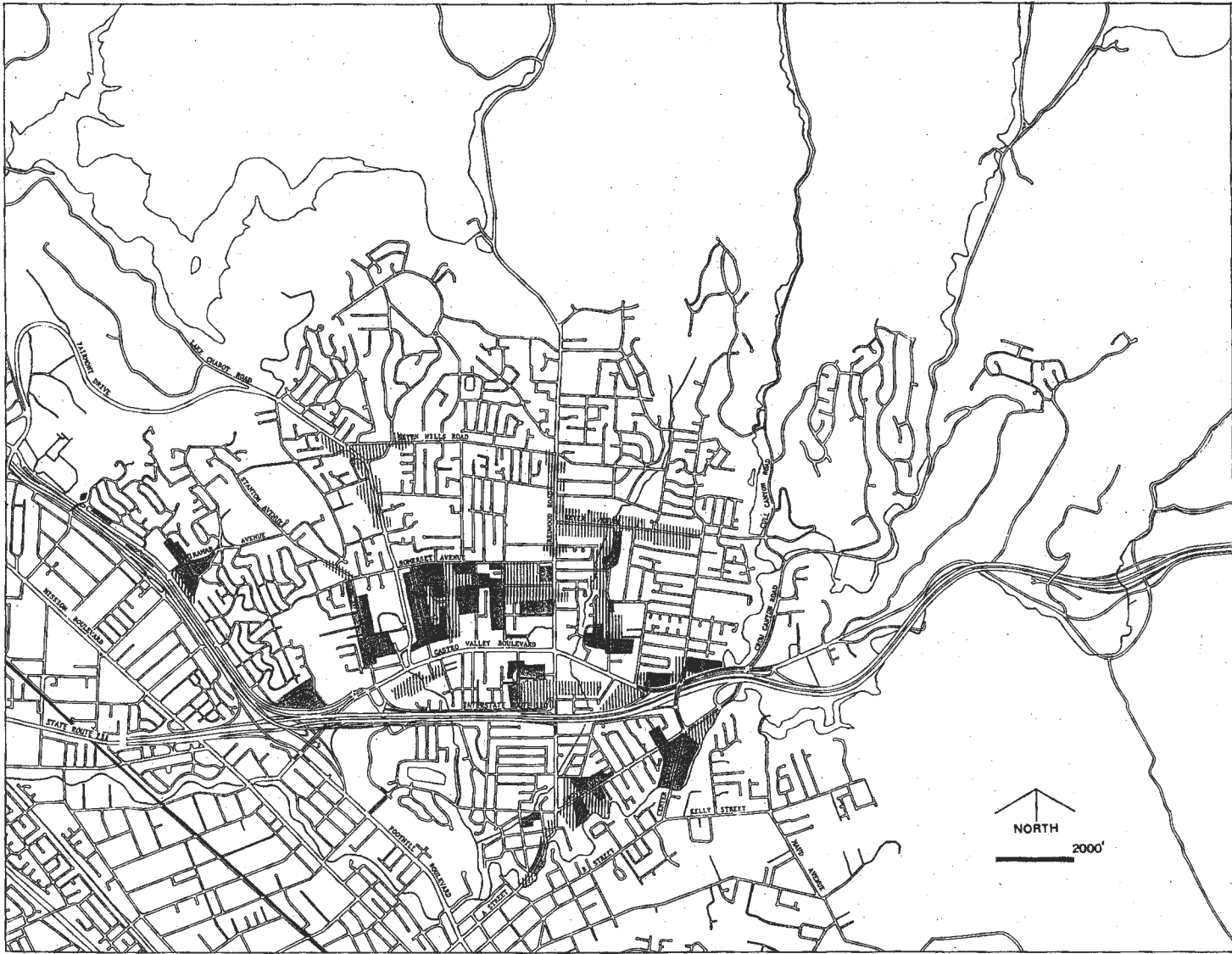
Circulation Element

Alameda County does not have a countywide Circulation Element. The County's various Area Plans cover this subject; the Castro Valley General Plan will serve as the Land Use and Circulation elements for that portion of the county. The Alameda County Congestion Management Agency (CMA) has adopted a countywide transportation plan, which is a congestion management plan as required by State law and not a Circulation Element. The Countywide Transportation Plan does, however, specify level of service standards for state highways and principal arterials within the planning area as well as standards for the frequency, routing, and coordination of public transit. The Alameda County Transportation Authority, the agency responsible for administering the County's transportation sales tax funds, has also adopted a Bike Master Plan and a Pedestrian Master Plan.

Housing Element

The Alameda County Housing Element adopted by the Board of Supervisors in October 2003 assesses the housing needs of Alameda County residents in unincorporated areas based on population projections and household characteristics. Because units were already "in the pipeline", the County's total housing need was reduced from 5,310 to 3,756 net units. More than two-thirds of the units needed (2,362 units) have to be affordable to low and very-low income households and the remaining 1,394 units have to be priced for moderate-income households (Sec. 65583 et. seq.).

Figure 3.1-2



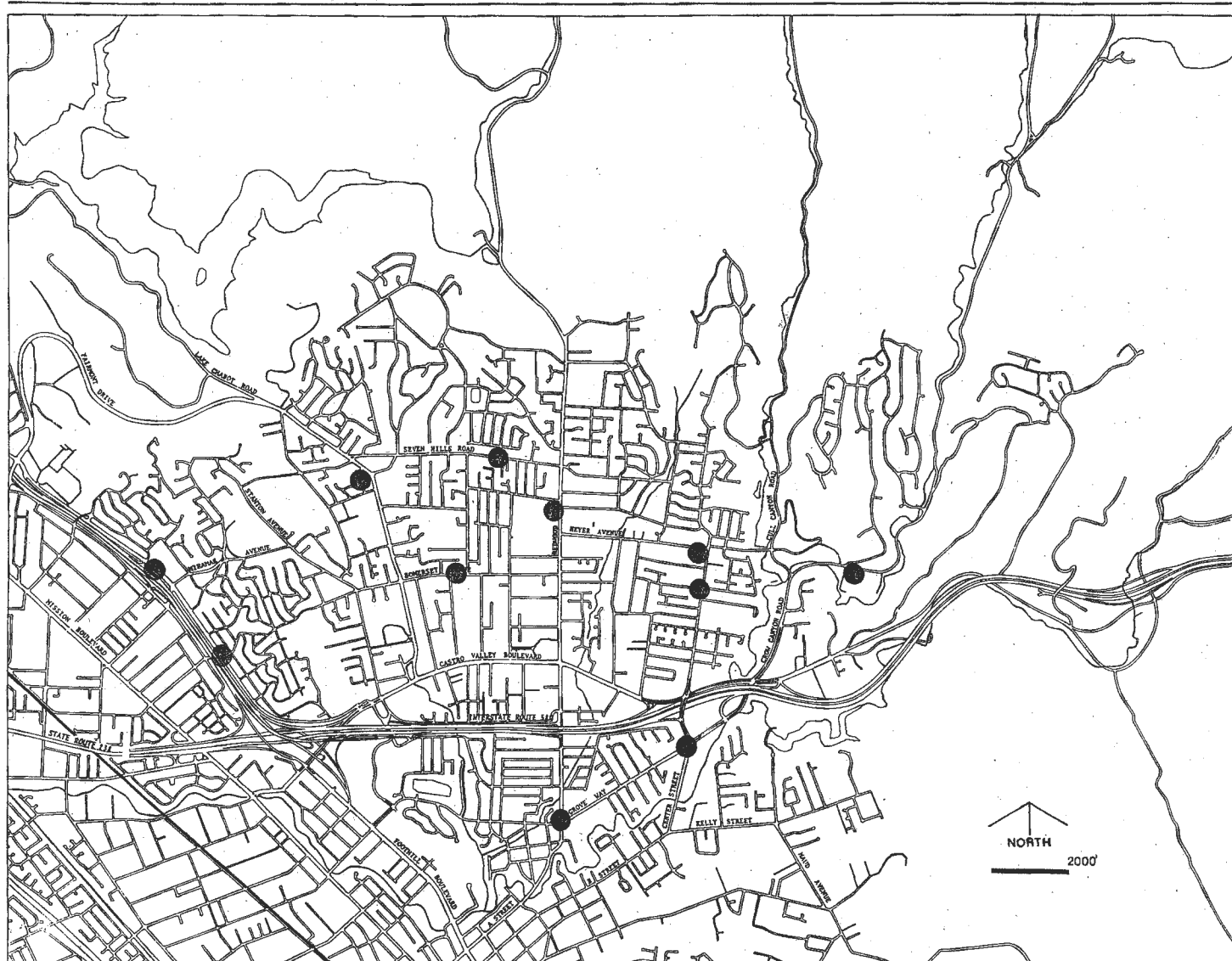
MEDIUM AND HIGH DENSITY RESIDENTIAL

- Symbol
- Medium and High Density Residential
 - Infill within areas where Medium and High Density Residential is the predominant existing land use.
 - New Medium and High Density Residential within other Residential areas, as prescribed by Plan policy.

Note: The figure serves to generally indicate those areas, within the Castro Valley Urban Area, where Medium and High Density Residential Land Uses (see Glossary for definition) would normally be permitted by applicable policies of this Plan. The figure illustrates Plan policy; it does not supersede and, therefore, should not be used without reference to the policies of this Plan document which, in all cases, will be used to determine project consistency with the Castro Valley Plan and County of Alameda General Plan.

Source: Castro Valley Plan 1985

Figure 3.1-3



CONVENIENCE COMMERCIAL

Symbol

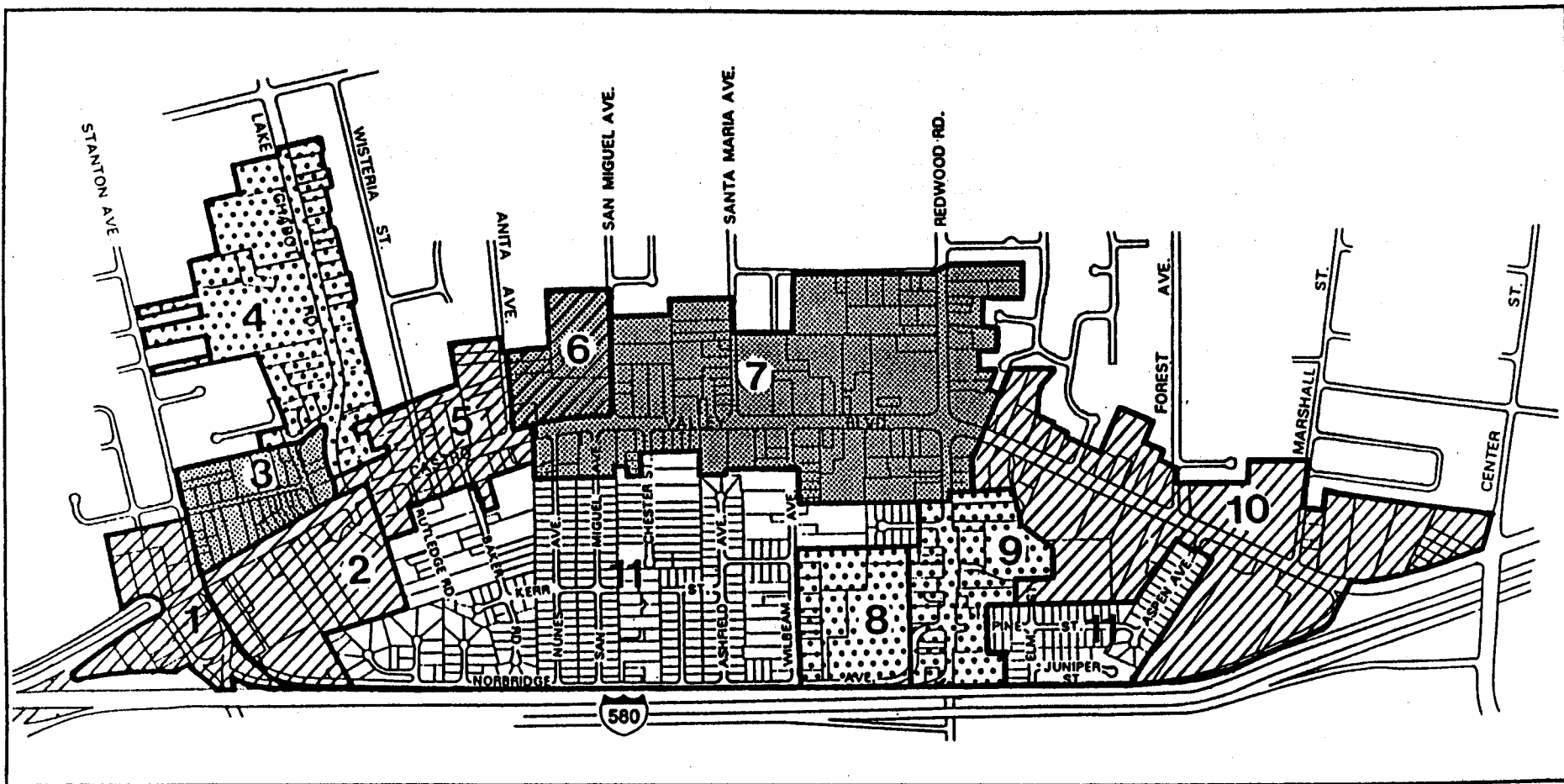


Convenience Commercial

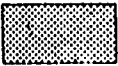



Note: The figure serves to generally indicate those areas, within the Castro Valley Urban Area, where Convenience Commercial Land Uses (see Glossary) would normally be permitted by applicable policies of this Plan. The figure illustrates Plan policy; it does not supersede these and, therefore, should not be used without reference to the policies of this Plan document which, in all cases, will be used to determine project consistency with the Castro Valley Plan and County of Alameda General Plan.

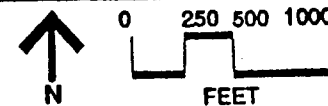
Source: Castro Valley Plan 1985

Figure 3.1-4



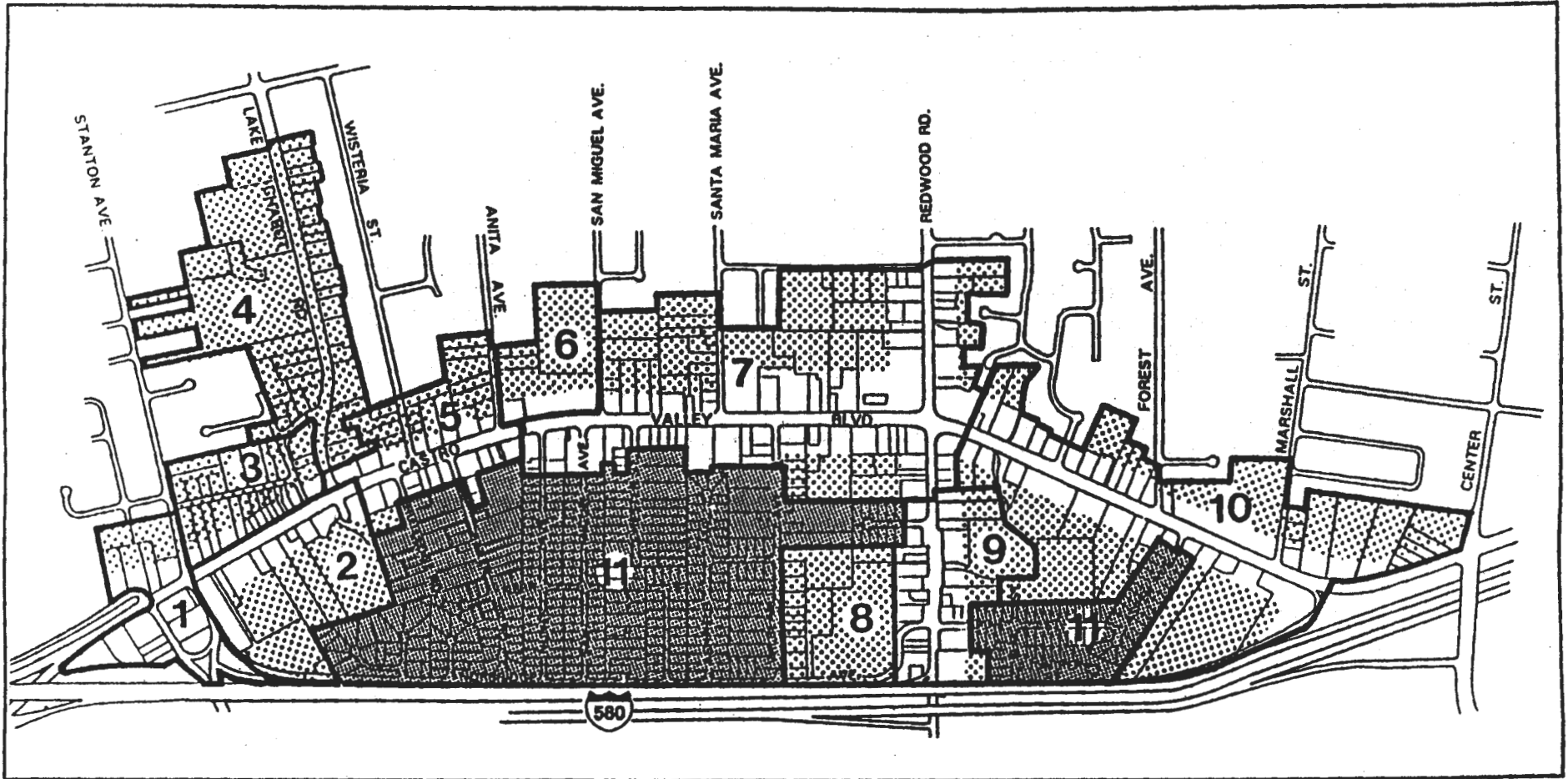
CBD SPECIFIC PLAN, 1993

-  Intensive Retail Commercial
-  Low Volume Auto-Oriented Commercial, Wholesale and Industrial
-  Business or Medical Office and Retail or Residential
-  Residential



Source: CASTRO VALLEY CENTRAL BUSINESS DISTRICT SPECIFIC PLAN
Alameda County Planning Department, 1992

Figure 3.1-5



RESIDENTIAL LAND USE



As Only Use



As Secondary Use

Source: CASTRO VALLEY CENTRAL BUSINESS DISTRICT SPECIFIC PLAN
Alameda County Planning Department, 1992

As required by the State Government Code, the County prepared an inventory of sites that could be used to meet the County's share of the projected regional housing need. Because Measure D requires that all of the County's Regional Housing Needs Allocation has to be accommodated within the voter-approved growth boundary, including Castro Valley, the County was initially unable to identify sufficient sites at current zoning to accomplish this objective. County staff evaluated several approaches for increasing development capacity and settled on four policy options that were adopted the Board. These mechanisms are:

- Transit-oriented mixed-use development zoning;
- Neighborhood mixed-use zoning;
- Changing zoning to increase density in selected areas; and
- Establishing a minimum density standard that requires all future housing development to be no less than 80 percent of the maximum zoned density.

The County subsequently amended the CBDSP to increase the residential densities allowed in certain subareas of that plan's area and amended the Castro Valley General Plan to change the land use of a portion of the Fairmont Campus from Public to Medium and High Density Residential.

Noise Element

Originally written in 1975, the Noise Element was amended in May 1994. The Noise Element states: "Alameda County should develop and adopt a County Noise Ordinance to prohibit unwanted and unnecessary sounds of all types within the unincorporated territory." This objective was accomplished with the adoption of Title 6: Health and Safety, Chapter 6.60: Noise of the Alameda County General Code, which defines noise measurement criteria, exterior noise level standards, prohibited noise disturbances, and vehicle noise limits, among other provisions. The County Noise Ordinance establishes exterior noise level standards for two categories of land uses—residential and other more sensitive receptors such as schools, hospitals, and libraries and commercial/industrial. These standards influence decisions about future land use.

Draft Resource Conservation, Open Space, and Agriculture Elements (ROSA)

The County is concurrently updating its resource conservation, agriculture, and open space (ROSA) elements. These elements will guide land use policies in the Castro Valley General Plan, which must reinforce and be consistent with the County ROSA. The updated ROSA will replace existing documents, including the 1966 Scenic Route Element, the 1973 Open Space Element, and the 1977 Specific Plan for Areas of Environmental Significance.

Policies and implementation programs under consideration, but not yet adopted, that would affect development within Castro Valley include:

- development standards on lots with a greater than 25 percent slope;
- a requirement that discretionary projects with more than 10,000 square feet of surface coverage include source controls to prevent the discharge of pollutants;

- implementation of the County's San Lorenzo Creek Action Plan, part of the County Public Works Stormwater Quality Management Plan;
- a stream corridor overlay zone that would restrict some land uses or intensity of uses;
- protection and management of all existing riparian woodland habitat along the San Lorenzo Creek;
- replacement mitigation required for riparian woodlands and wetlands removed by development;
- adoption of an open space dedication and/or in-lieu fee requirement for all residential, industrial, commercial, and office developments within unincorporated areas;
- encouragement of local land trusts and other land conservancies to acquire fee title or easements on strategic parcels in order to prevent urban expansion into Castro Valley and Palomares Canyonlands in West County, including protection of Walpert Ridge;
- preservation of the ridgelines of the Palomares and Castro Valley Canyonlands, largely as open space; and
- as part of the update of the Castro Valley Plan, review the adequacy of existing agriculture support services for agricultural enterprises in the Castro Valley and Palomares Canyonlands and revise zoning in the unincorporated city of Castro Valley as necessary to address agriculture support needs.

Scenic Route Element

A scenic route element used to be a State-mandated component of General Plans, and it is still included in the County General Plan. Adopted in 1966, the Scenic Route Element establishes policies to develop a system of scenic routes, and preserve and enhance scenic qualities and natural scenic areas adjacent to and visible from scenic routes. These policies apply within a designated band around the route. The Element was amended May 5, 1994 to remove its standards for the actual scenic roadways, and it is expected to be replaced soon by the County's new resource conservation, open space, and agriculture (ROSA) element. Within the Castro Valley planning area, the roads designated as scenic routes are I-580, Lake Chabot Road (north of Seven Hills Road), Redwood Drive, Cull Canyon Road, Crow Canyon Road, and A Street.

Seismic and Safety Elements

These 1982 elements delineate goals, principles, and implementation recommendations for general hazards, geologic hazards, wildland and structural fire hazards, flood hazards, and hazardous materials for both the county as a whole and for unincorporated areas. The comprehensive goals for the elements are:

- To reduce the risk of loss of life, property or natural resources due to natural hazards;

- To promote the health, safety and welfare of the population by avoiding or reducing adverse social, economic and environmental effects of natural hazards; and
- To educate and inform residents of potential hazards and mitigating measures.

Because of Castro Valley's flood, fire, and geologic risks (including landslide and liquefaction) mapped in Sections 3.6, 3.9, and 3.10 of this EIR, these County Elements are important for protecting the safety of Castro Valley residents. Since they were created, State law was amended to require a single element that deals with seismicity and other safety issues.

IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

Impacts of buildout of the proposed General Plan would be significant if they:

- Physically divide an established community, i.e., through construction of a freeway, railroad, canal, or other barrier;
- Substantially change the types of land uses in an area, which could result in conflicts with neighboring areas, or with the established pattern of development;
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the Alameda County General Plan, specific plans, or the Resource, Open Space and Agriculture Element) adopted for the purpose of avoiding or mitigating environmental impacts;
- Convert (directly or indirectly) Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency) to non-agricultural use;
- Conflict with existing zoning for agricultural use or a Williamson Act contract; or
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

With CEQA, impacts are only considered if they are adverse in nature.

METHODOLOGY & ASSUMPTIONS

Current and proposed General Plan policies and goals, existing and proposed land use conditions within Castro Valley, and applicable regulations and guidelines were considered in this analysis. . The Proposed General Plan Land Use Diagram is presented in Figure 2.3-1 in Chapter 2. The intent of the proposed General Plan is to create a community in which land uses exist and function without imposing a nuisance, hazard, or unhealthy condition upon adjacent uses. Commercial, residential, and office uses are usually compatible if building scale and character are consistent, pedestrian connections are provided, and auto-oriented uses are limited. Uses within development areas are expected to be compatible with one another

because General Plan policies establish requirements for compatible development, including buffering, screening, controls and performance standards.

Implementation of the General Plan will create specific regulatory standards and review procedures to ensure compatible land uses. The updated General Plan will be the guiding land use and circulation policy in the Castro Valley community. Adopted policies, plans, programs, the zoning code, and other implementing tools will be amended to conform to the adopted General Plan.

SUMMARY OF IMPACTS

The draft Castro Valley General Plan does not propose many dramatic changes in the community's land use and, consequently, does not generate any significant environmental impacts. These changes either alter the current zoning to better reflect the actual land use on those sites, or changes land use designations to match an area's land use context and thereby reduce the chance of incompatible land uses. The proposed Plan also does not propose any infrastructure or construction that would physically divide the community.

There is no State-designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance in the Castro Valley planning area, and the land currently zoned for agricultural use within the Castro Valley planning area is not Williamson Act property. There are no habitat conservation plans or natural community conservation plans in force within the Castro Valley planning area.

Even though the proposed Plan is largely consistent with other applicable land use plans, it includes polices to ensure that the impact of inconsistency is less than significant.

IMPACTS AND MITIGATION MEASURES

Impact

3.1-1 The proposed Plan makes policy and land use changes to areas covered by specific and redevelopment plans. (*Less Than Significant*)

The proposed Plan puts forward policy and land use changes to areas covered by the Central Business District Specific Plan, Specific Plan for the Upper Madison Avenue/Common Road Area, and the Eden Redevelopment Plan. None of these changes will result in conflicts with neighboring areas or with the established pattern of development. The Plan also includes actions that will ensure that the impact on existing plans is less than significant.

Proposed General Plan Policies that Reduce the Impact

Action 4.7-9 Revise and/or amend the 1992 CBD Specific Plan and Design Guidelines to be consistent with the General Plan and to make it easier to use.

Action 4.7-10 Update the standards and guidelines in the CBD Specific Plan to provide detailed standards for future housing and mixed use development. Include provisions to address:

- Building setbacks and relationship to the street,
- Front yard landscaping and street landscaping to create an attractive and livable environment for residential,
- Side and rear setbacks to provide adequate light, air, and ventilation to units,
- Building design – articulation, quality materials,
- Ground floor uses, and privacy for any ground floor residential units,
- Adequate setbacks and insulation to minimize noise,
- Location of parking; and
- Height and setback transitions to adjacent lower density residential areas.

Action 4.7-11 Update the standards and guidelines in the CBD Specific Plan to provide additional guidance regarding building design. Require discretionary design review, and enforce existing standards and guidelines during project review.

Action 4.7-12 Amend the Specific Plan as necessary to include design standards and regulations to protect and enhance the appearance of early to mid-20th century commercial buildings that enhance the historic and small town character of the Central Business District. The zoning ordinance should include provisions that would encourage adaptive reuse of such structures such as reduced parking requirements.

Action 4.7-13 Amend the CBD Specific Plan and zoning to establish a Land Use Category and Standards for live work, allowing incidental residential use of a commercial space in areas designated for commercial use. In the zoning standards or project review criteria, encourage live-work development to buffer more intense Central Business District uses from surrounding residential neighborhoods.

The residential portion of a live-work project shall be above the ground floor or in those portions of the building that do not have frontage on a commercially-zoned street. The work activities permitted in a live-work space shall be uses that are permitted in the district where the project is located and will not be detrimental to the health and safety of persons who reside on the premises.

Action 4.7-19 Amend the CBD Specific Plan to prohibit professional and real estate offices and title companies in ground floor spaces in the pedestrian-oriented downtown retail core area bounded by Redwood Road on the east and Santa Maria Avenue on the west.

Action 4.7-20 Amend the CBD Specific Plan to allow auto-oriented community commercial uses with additional parking on the east side of Redwood Road near Castro Valley Boulevard.

Action 4.3-1 Review and revise the existing Madison Common Specific Plan to conform to the General Plan.

Mitigation Measures

No additional mitigation measures are required.

Impact

3.1-2 The proposed Castro Valley General Plan may not be compatible with the policies of the Eden Area General Plan. (*Less Than Significant*)

The proposed Castro Valley General Plan could conflict with the Eden Area General Plan in three areas. The policies and actions in the proposed plan will, however, ensure that these potential conflicts will be minimized and, as such, any impact will be less than significant.

The Eden Area General Plan establishes a minimum level of service (LOS) standard for roadways major streets that are not part of the County's Congestion Management Program (CMP). This standard is an LOS of D during peak travel periods, and C during non-peak periods. The major roads the Eden Area General Plan identifies that are not a part of the CMP network, include Fairmont Drive, Miramar Avenue, E. 14th Street/Mission Boulevard, "B" Street, Kelly Street, Maud Avenue, 2nd Street, Ashland Drive, Blossom Way, Meekland Avenue, and Lewelling Boulevard. Three of these roadways—E. 14th Street, "B" Street, and Lewelling Boulevard—were analyzed for peak-hour traffic impacts (details are available in Section 3.4, Transportation). On all three of these roadways, the proposed Plan will not result in a LOS worse than the one anticipated under the No Project scenario. Given this outcome, as well as the proposed Plan's policies to promote transit, shift development toward Castro Valley Boulevard, and create more opportunities for Castro Valley residents to work in the community, it is anticipated that the Castro Valley General Plan will be consistent with the Eden Area General Plan on this issue, meaning no impact under CEQA.

The Eden Area Draft General Plan proposes to locate a park within a half-mile walking distance of every Eden Area resident, a goal that may require sitting a park within the boundaries of the Castro Valley planning area. The proposed development of a park on the EBMUD site at Sydney Way or a comparable location in the northwestern part of the community will help to achieve this goal.

Finally, the Eden Area General Plan has a policy of promoting bicycling and pedestrian connectivity. The effective application of this policy requires that bike routes, sidewalks, and related design guidelines be extended through adjacent sections of the Castro Valley planning area. In particular, the Eden Plan calls for the "A" Street corridor, which is partially within Castro Valley, to emphasize pedestrian and transit access to adjacent land uses, with wide sidewalks provided if possible. The Castro Valley Plan does not include any specific proposals to promote pedestrian and transit use in the Grove Way Corridor, which merges with A Street. The Plan does, however, propose to change the classification of some commercial properties on Grove Way to residential use, which would be compatible with the proposed Eden Area policies. The Plan also proposes development of a system of bikeways and pedestrian facilities in Castro Valley that is coordinated with existing and planned facilities in adjoining communities such as proposed in the Eden Plan.

Proposed General Plan Policies that Reduce the Impact

- Policy 6.1-1** Promote a comprehensive system of transportation facilities that includes: streets and highways within the community and providing access to other urban areas; transit facilities; a continuous network of pedestrian sidewalks and bicycle routes; and transportation management programs and measures to encourage the efficient use of these facilities and services.
- Policy 6.1-4** Balance the needs of all four circulation modes—automobile, transit, bike and pedestrian when making decisions about transportation improvements and allocation of public right of way.
- Policy 6.1-5** An LOS of E or better shall be applied to Congestion Management Program (CMP) Roadways: Castro Valley Boulevard, Center Street, Grove Way, Crow Canyon road, and Redwood Road. An LOS of D or better shall be applied to all non-CMP roadways during peak travel periods. The County may allow individual locations to fall below the LOS standards in the following instances:
- The construction of improvements would be physically infeasible or prohibitively expensive
 - Improvements would significantly and adversely affect adjacent properties or the environment, or have a significant adverse effect on the character of Castro Valley
 - Lower standards result from significant physical improvements to transit, bicycle or pedestrian facilities.
 - Existing or projected congestion is primarily the result of traffic passing through Castro Valley and generated by development located outside the community;
 - Mitigation of such existing or projected congestion requires regional or multi-jurisdiction measures, and is not the sole responsibility of the proposed development and/or of the County; and
 - Constraints on development as would be required to achieve or maintain these standards in Castro Valley would adversely impede achievement of this Plan’s social economic, land use and community development, and environmental goals and policies.
 - Mitigation of such existing or projected vehicular congestion would negatively affect transit, bicycle or pedestrian circulation, or would conflict with General Plan goals for these alternative modes of circulation, for example by increasing crossing distances, increasing pedestrian safety risk, or restricting bicycle or transit access.
 - Traffic congestion is a result of an effort to promote transit ridership and/or access, including the development of dense residential housing or employment near transit or circulation changes to enhance access to BART.

- On a temporary basis when the improvements necessary to preserve the LOS standard are in the process of construction or have been designed and funded but not yet constructed.

Policy 6.2-1 Work with the Alameda County Congestion Management Agency, the Alameda County Transportation Authority, the Metropolitan Transportation Commission, Caltrans, and surrounding jurisdictions to develop and implement regional solutions to local traffic problems created by growth outside of Castro Valley.

Policy 8.2-1 Provide additional neighborhood and community park and recreation facilities in the Castro Valley planning area to increase and maintain a parkland standard of at least 3 acres for every 1,000 residents.

Policy 8.2-4 Where appropriate, provide smaller “pocket parks,” that can serve an area no more than one quarter mile in radius, with a population no greater than 4,000. Work with HARD to amend park standards to allow such “pocket parks” in developed areas where acquisition of larger size sites is not feasible. Neighborhood park service areas should be bounded, but not intersected, by major streets.

Policy 8.2-10 Neighborhood and community parks and recreation facilities should, to the extent possible, be located in or immediately adjacent to predominantly residential areas and within a reasonable 10 to 15 minute walking distance of the population the park is intended to serve.

Action 8.2-1 Work with HARD to develop a new neighborhood park to serve the northwestern part of the Castro Valley Planning Area on the EBMUD property on Sydney Way or a comparable location.

Action 4.9-10 Rezone properties to residential use on the southerly side of Grove Way east of Center Street, since residential uses already predominate in this area and residential uses can enjoy the visual and open space benefits of the creek to the rear.

Policy 6.5-1 Provide a system of bikeways in Castro Valley that is coordinated with existing and planned facilities in adjoining communities as well as other transportation routes and facilities serving the community.

Policy 6.5-3 Implement the regional bicycle corridors identified in the Alameda County Bicycle Master Plan for Unincorporated Areas and the Countywide Bicycle Plan.

Policy 6.6-1 Implement the Alameda County Pedestrian Master Plan for Unincorporated Areas policies and actions for enhanced pedestrian environments in Castro Valley.

- Policy 6.6-3** Provide safe and attractive pedestrian facilities along arterials and collectors particularly those that are part of the Pedestrian Activity Corridors, as identified in the Alameda County Pedestrian Master for Unincorporated Areas.
- Policy 6.6-4** Pedestrian facilities and amenities shall be routinely maintained as funding and priorities allow. The highest priority shall be given to facilities that are used to provide access to transit, public facilities, senior facilities, and schools.
- Policy 6.6-5** Improve street design and traffic enforcement to increase pedestrian safety.
- Policy 6.6-6** Design new development and redevelopment projects to facilitate pedestrian access and address any impacts to the pedestrian safety, access, and circulation.
- Policy 6.6-7** When dealing with competing demands for sidewalk space, pedestrian needs shall have the highest priority.

Mitigation Measures

No additional mitigation measures are required.

Impact

3.13-3 The Plan may conflict with policies in the County’s Resource Conservation, Open Space, and Agriculture elements. *(No Impact)*

The proposed Plan is consistent with the existing Resource Conservation, Open Space, and Agriculture elements. The County’s update of these General Plan elements had not been completed as of this writing and will likely still be ongoing by the time the proposed Plan is adopted. Consequently, the potential for conflict with new policies in these updated elements would only be speculative.

Mitigation Measures

No mitigation measures are required.

3.13-4 Changes to land use designation along certain roads may conflict with the Alameda County Scenic Routes Element. *(Less than Significant)*

The Plan proposes to redesignate an approximately 17-acre area on the east side of Crow Canyon Road from rural agriculture to rural residential (R1-RR-40). This change in land use designation could conflict with the standards in the County’s Scenic Routes Element because Crow Canyon Road is a designated scenic route. The Element requires lots immediately adjacent to the scenic route right-of-way (ROW) to have a minimum lot size of 10,000 square feet per housing unit (approximately four dwelling units per acre), with 100 foot minimum fronting the ROW and a setback of at least 50 feet. No buildings above one story or fences, walls, etc. are permitted where they would obstruct “outstanding” views.

The Plan proposes the preparation of a specific plan or precise plan for the Crow Canyon Road area to ensure that new development is sensitive to the area’s biological resources and maintains the corridor’s visual character. The proposed change will also be less than significant because the Rural Residential land use classification would require minimum lot sizes of 20,000 to 40,000 square feet (approximately one to two dwelling units per acre). Moreover, any subdivision would have to be consistent with the Scenic Routes Element. Parcels given new land use designations along Redwood Drive should ensure that unsightly features, as spelled out in the Element, are prohibited and that architectural and site design review are required.

Proposed General Plan Policies that Reduce the Impact

<i>Land Use Category</i>	<i>Map Designation</i>	<i>Description</i>	<i>Typical Uses</i>	<i>Maximum Density</i>
Rural Residential	RI-RR	Establish a new rural residential zone that is for larger lots in the more rural areas, and allows some animal keeping on those lots. These could be areas where second units are not permitted, because they all have access limitations and are in areas with steep slopes and/or habitat areas.	RI-RR-40: Rural Residential – 40,000 sf lot size RI-RR-20: Rural Residential – 20,000 sf lot size	1-2 Units Per Net Acre

Policy 4.2-1 Lot sizes shall be consistent with desired character of the area, as established in the new General Plan land use classifications.

Subdivision plans shall be designed to avoid areas that are environmentally sensitive, or have high fire hazards or steep slopes. Alternatives to standard lot sizes and layouts should be used in these conditions, including:

- Creating smaller lots clustered together with permanent open space designations for steep slopes and environmentally sensitive areas;
- Creative building designs within a planned unit development; and/or
- Reduction in development intensity up to 75 percent of the maximum permitted.

Policy 4.2-5 Revise and add development standards for single family homes in the R1 and RS districts to ensure adequate light and air, privacy; usable open space; landscaping; and attractive street appearance.

Policy 4.2-7 Establish a comprehensive design review process that creates an appropriate level of review for each type of project. Balance the goals for better project design with the impacts in terms of review time and cost for property owners. Consider staff resources.

Establish development standards and guidelines specific to each zoning district and/or building type. Develop a checklist of standards that can be applied to all development applications. Use the new standards as the basis for review of

development applications. Establish different levels of review based on the number of units, number of new lots, and/or acreage of the project.

Action 4.3-4 Require preparation of a Crow Canyon Road Area Specific Plan or Precise Plan prior to any subdivision of existing lots larger than two acres to ensure that future development is sensitive to the area's biological resources, maintains and enhances the corridor's visual character, and will be adequately served by public services and facilities.

Mitigation Measures

No additional mitigation measures are required.

REFERENCES

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- Alameda County, Castro Valley Plan—A Part of the County of Alameda General Plan, The County Planning Commission of Alameda County, 1985.
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- Alameda County, Eden Area General Plan Draft EIR, September 15, 2006.
- Alameda County, Fairview Area Specific Plan, 1997.
- Alameda County General Ordinance Code, Title 17 (Zoning).
- Alameda County General Ordinance Code, Chapter 12.11 of Title 12, Tree Ordinance.
- Alameda County, *General Plan Housing Element, Alameda County*, updated 2003.
- Alameda County Redevelopment Agency, *Castro Valley Redevelopment Strategic Plan*, December 2005.
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- Alameda County, Resources Conservation Element, 1994; *Scenic Route Element 1966* (amended 1994); *Open Space Element*, 1973.
- Alameda County, *Specific Plan for Areas of Environmental Significance*, 1977.
- Alameda County, Specific Plan for the Upper Madison Avenue/Common Road Area, 1975.

Alameda County, Unincorporated Eden Area (Portion) Plan, 1983 (amended 1995).

California Department of Conservation, Farmland Mapping and Monitoring Program
<<http://www.consrv.ca.gov/DLRP/fmmp/>>, 2006.

United States Census 2000, U.S. Census Bureau <<http://www.census.gov/>>

3.2 Parks, Open Space and Recreation

This section describes the environmental and regulatory settings relative to parks and recreation facilities in the Castro Valley planning area and analyses the effect of the proposed plan on these resources.

ENVIRONMENTAL SETTING

PHYSICAL SETTING

Castro Valley has about 322 acres of local (neighborhood) and community parks owned and operated by the Castro Valley Unified School District, the Hayward Area Recreation and Park District, and the East Bay Regional Park District. This is an average of about 5.35 acres of local and community parkland for every 1,000 residents. In addition, Castro Valley residents have access to about 5,600 acres of East Bay Regional Park District (EBRPD) facilities within or adjacent to the community and 43 acres of special use facilities. Table 3.2-1 lists all park and recreation facilities within and adjacent to the Castro Valley planning area. The locations of parks are shown in Figure 3.2-1.

Table 3.2-1: Estimated Park and Open Space Acreage in Castro Valley

Type	Estimated Acreage
Local and School Parks	82
Community Parks ¹	240
Regional Parks	5,591
Total	5,913

¹. Includes 170 acres in Cull Canyon and Don Castro Recreation Areas.

Existing Open Space System

Hayward Area Recreation and Park District (HARD) serves a 64-square mile area including the City of Hayward and surrounding unincorporated communities. HARD maintains a system of parks within Castro Valley that includes local parks, community parks, community centers, special use parks, open space, and trails. The East Bay Regional Park District manages regional parks for all of Alameda and Contra Costa County including about 170 acres within the Planning Area that serve as community recreation areas for Castro Valley residents and 5,600 acres of regional parks and trails adjacent to the Planning Area.

Local and School Parks

HARD defines a local park as a combination playground and park area designed primarily for non-supervised, non-organized recreation activities. These parks generally range from 3 to 10 acres in size and serve an area of approximately ¼- to ½-mile radius around the park. Local parks form an integral part of the neighborhood and create a sense of community by providing a place to engage in informal sports, playground activities and social gathering areas. Local

parks typically include children’s playground equipment with adjacent sitting areas, individual family picnic areas, open grass areas for multi-generational, informal activities, such as kite-flying, dog walking, Frisbee-tossing, bocce ball, and community gardening.

Since its formation in 1944 to operate recreation programs on school playgrounds, HARD has continued to coordinate its operations with local school districts. HARD defines school parks as facilities that are developed on school land and are available for use by the recreating public. School parks may be jointly-owned and/or jointly developed. There are four school districts within the Hayward Area Recreation District – Hayward, Castro Valley, San Lorenzo, and New Haven. Ownership and management of school parks within these school districts fall into three categories: those owned and managed by HARD; those owned by the school and managed by the District; and those owned and managed by the school. Ten of Castro Valley’s 18 neighborhood parks are school parks that are adjacent to or part of public school facilities.

Table 3.2-2: Existing Local and School Parks

<i>Park Name/Location</i>	<i>Amenities</i>	<i>Acreage</i>
Canyon Middle School, 1960 Cull Canyon Road*	Parking lot, ball fields, basketball courts, soccer fields, open lawn area	3.75
Carlos Bee Park, 1905 Grove Way	Picnic tables, group picnic area, barbecues, play area.	6.9
Castro Valley Elementary School, 20185 San Miguel Ave.	Play field	1.7
Castro Valley High School, 19400 Santa Maria Ave*	Parking lot, ball fields, basketball courts, soccer fields, restrooms, snack bar, swim center, open lawn area	2.5
Chabot School, 19104 Lake Chabot Road	Play field	1.0
Deerview Park, 5780 Thousand Oaks	Picnic tables, group picnic area, BBQs, play area, basketball courts, open lawn area, par course.	6.2
Earl Warren Park, 4660 Crow Canyon Road	Picnic tables, BBQs, play area, parking lot, restrooms, open lawn area	8.4
Five Canyons Park, Five Canyons Parkway	Youth baseball fields, youth/young adult-sized soccer fields, restroom/snack bar building, a parking lot, basketball court, walking path, picnic tables, children’s play area.	12.0
Independent School, 4070 E. Castro Valley Blvd*	Ball fields, soccer fields, open lawn area	1.4
Laurel Park, 2652 Vergil	Play area, open lawn area, tot lot	5.0
Marshall School, 20111 Marshall*	Ball fields, soccer fields, open lawn area	3.6
Palomares Hills Park, 7050 Villareal	Picnic tables, group picnic area, BBQs, play area, ball field	6.3
Parsons Park, Almond and Walnut Roads	Picnic tables, children’s play area, open lawn area, walking path.	4.2

Table 3.2-2: Existing Local and School Parks

<i>Park Name/Location</i>	<i>Amenities</i>	<i>Acreage</i>
Proctor School, 17520 Redwood Road*	Ball fields, soccer fields, open lawn area	4.1
Ridge Trail Park, Rancho Palomares Drive	Half basketball court, sand volleyball, play structures, picnic area, pathway linked w/EBRPD trail system	2.3
Redwood School, 4400 Alma*	Ball fields, soccer fields, open lawn area	2.0
Strobridge School, 21400 Bedford*	Ball fields, soccer fields, restrooms, open lawn area	5.0
Vannoy School, 5100 Vannoy*	Ball fields, soccer fields, open lawn area	5.0
Total Local Parks		81.65
* School park		
<i>Source: Hayward Area Recreation and Park District Master Plan, June, 2006; Alameda County Parks, Recreation & Historic Sites Directory, 2003; Larry Lepore, HARD Superintendent of Parks, November 29, 2005; Letter, February 7, 2007.</i>		

Community Parks and Special Use Facilities

Community parks are larger than local parks and provide for a wider variety and higher intensity recreational uses. The focus is on more active and structured activities for larger segments of the community. In general, community park facilities are designed for organized activities and sports, although individual and family activities are also encouraged. The service area of a community park is roughly a two to three mile radius. Typical facilities found in a community park include a children's playground with distinct areas for preschool and older children, with adjacent sitting areas; water play under controlled conditions, as appropriate; shaded group picnic areas (including shelters); athletic fields (e.g., soccer, softball) and courts (e.g., basketball, tennis, and bocce ball). Castro Valley has six community parks as well as two East Bay Regional Park District facilities, Cull Canyon Recreation Area and Don Castro Recreation Area, which are immediately adjacent to the Planning Area and provide the same type of recreation function as community parks.

Table 3.2-3: Community Parks

<i>Park Name</i>	<i>Amenities</i>	<i>Acreage</i>
Adobe Park, 20395 San Miguel	Picnic tables, open lawn area	1.75
Bay Trees Park, 19855 Cull Canyon Road	Picnic tables, group picnic area, BBQs, parking lot, tennis courts, restrooms, handball, sand volleyball	12.3
Cull Canyon Recreation Area, 18627 Cull Canyon Road (partial)	Swimming, fishing, picnicking	120
Don Castro Regional Recreation Area, 22400 Woodroe Avenue, Hayward (partial)	Swimming, fishing, picnicking	50

Table 3.2-3: Community Parks

<i>Park Name</i>	<i>Amenities</i>	<i>Acreage</i>
Douglas Morrison Botany Grounds, 22372 N. Third St., Hayward (partial)	Botanical area, garden center	1.4
Castro Valley Community Park and Community Center, 18988 Lake Chabot Road	Picnic tables, group picnic area, BBQs, play area, parking lot, tennis courts, ball fields, basketball courts, soccer fields, horseshoe courts, community center	8.2
Greenridge Park, 6108 Greenridge Road	Picnic tables, BBQs, play area, hiking/riding trails, parking lot, basketball courts, horseshoe courts, restroom, open lawn area	43.1
Kenneth C. Aitken Community Center, 17800 Redwood Road	Picnic tables, parking lot, rest rooms.	3.5
Total Community Parks		240.25

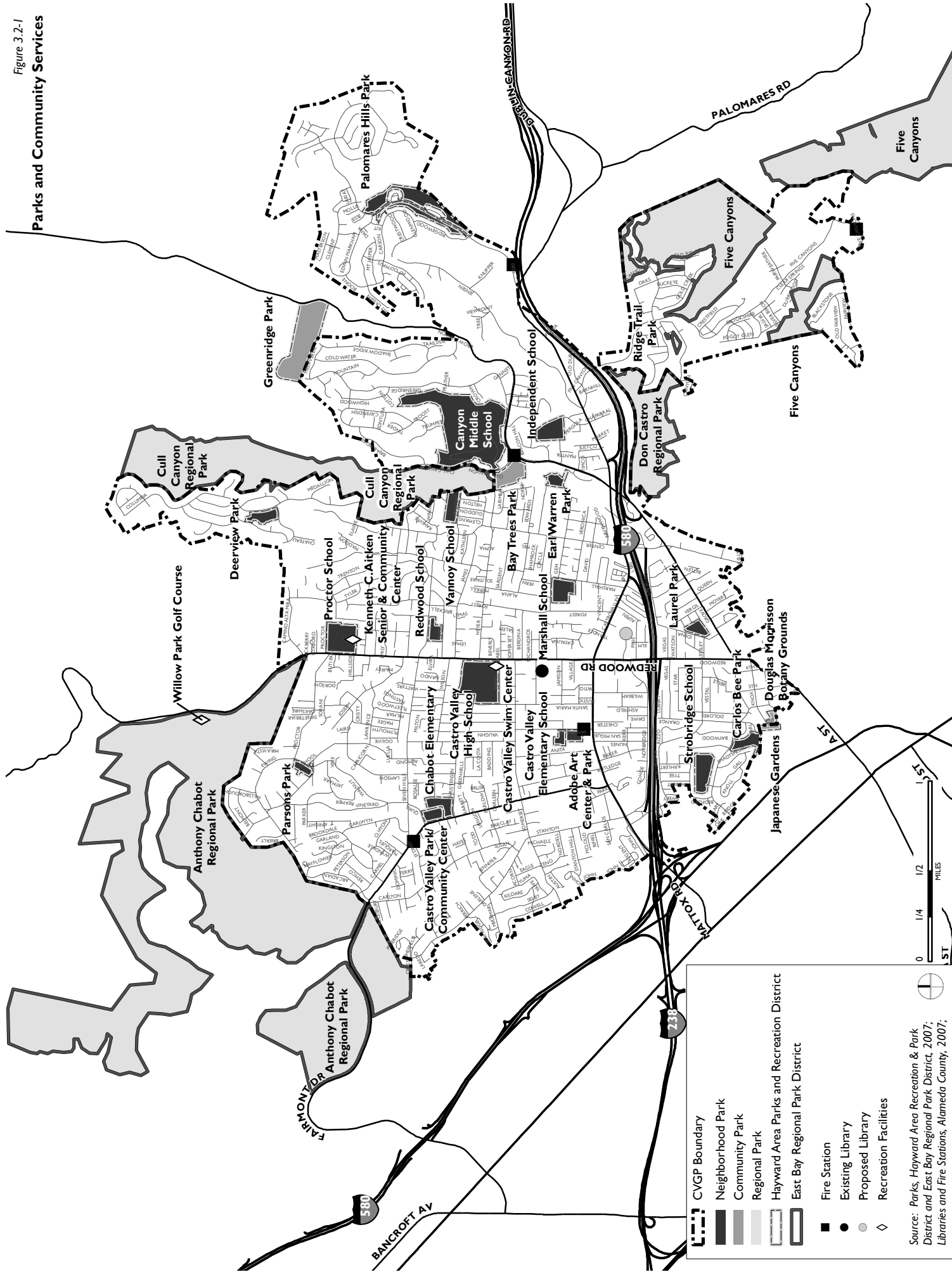
Source: Hayward Area Recreation and Park District, Recreation and Parks Master Plan, June 2006; Alameda County Parks, Recreation & Historic Sites Directory, <http://www.ebparks.org/parks.htm>

Table 3.2-4: Special Use Facilities and Community Centers

<i>Park Name</i>	<i>Amenities</i>	<i>Acreage</i>
Adobe Art Center, 20395 San Miguel	Art studios and gallery, community center building	See Adobe Art Center above
Castro Valley Community Center, 18988 Lake Chabot Road	Community center and theater.	See Castro Valley Community Park above.
Castro Valley Swim Center, 19400 Santa Maria Ave.	Swimming pool.	See Castro Valley High School above
Rowell Ranch, 9711 Dublin Canyon, Hayward	Picnic tables, BBQs, open lawn area, rodeo park, and concessions.	43.0
Kenneth C. Aitken Senior & Community Center, 17800 Redwood Road	Parking Lot, Community Center Building, Meeting Rooms, Rest Rooms, Senior Center	See Kenneth C. Aitken Community Center above.
Willow Park Golf Course, 17007 Redwood Road	18-hole golf course, snack bar, restaurant.	See Chabot Regional Park below.
Total Special Use Facilities		43

Source: Hayward Area Recreation and Park District, Recreation and Parks Master Plan, June 2006.

Figure 3.2-1
Parks and Community Services



- CVGP Boundary
- Neighborhood Park
- Community Park
- Regional Park
- Hayward Area Parks and Recreation District
- East Bay Regional Park District
- Fire Station
- Existing Library
- Proposed Library
- Recreation Facilities

Source: Parks, Hayward Area Recreation & Park District and East Bay Regional Park District, 2007; Libraries and Fire Stations, Alameda County, 2007;



Regional Parks

Regional parks are much larger than local and community parks, often ranging between several hundred to several thousand acres in size. As the name implies, regional parks serve a large region, usually comprising the surrounding communities within the vicinity of the regional park as well as drawing people from farther afield. Because they include active recreation facilities and are located within walking distance or a short drive from Castro Valley neighborhoods, Cull Canyon and Don Castro Recreation Areas, function like community parks for many residents. Regional parks in the Castro Valley area provide lakes for swimming, fishing and small craft boating; picnic areas; camping; bicycling; horseback riding; and hiking. There are close to 5,500 acres of regional parkland adjacent to the Castro Valley Planning Area.

Table 3.2-5: Regional Parks

<i>Park Name</i>	<i>Amenities</i>	<i>Acreage</i>
Anthony Chabot Regional Park and Lake Chabot Regional Park, 17930 Lake Chabot Road	Fishing, small craft boating, camping, hiking, horseback riding, bicycling, marksmanship range, golf	5,064
Cull Canyon Regional Recreation Area*	Swimming, fishing, picnicking	240 (See Community Parks above)
Don Castro Regional Recreation Area*	Swimming, fishing, picnicking	51 (See Community Parks above)
Five Canyons Open Space and Trail System	Hiking, horseback riding, bicycling	236
Chabot to Garin Regional Trail	8.5 miles of 12-mile hiking trail complete from Chabot Regional Park through Cull Canyon and Don Castro to Five Canyons Regional Open Space	
Total Regional Parks		5,591

* Part of the acreage of these facilities is included in Table 3.2-3.

Source: Letter from Linda J.P. Chavez, East Bay Regional Park District, July 22, 2004; <http://www.ebparcs.org/parks.htm>

Service Standards

An agency can quantitatively assess how well it is meeting the parkland needs of its residents by calculating a comparative ratio of park acreage to population. In 2006, HARD established park standards that provide a basis for estimating and evaluating the adequacy of the existing facilities to serve the District user population as well as the amount and number of facilities required to serve the potential user population. Table 3.2-6 outlines the park standards that HARD has adopted for its service area.

Table 3.2-6: HARD Park Acreage/Population Standards for Park Facility Acquisition & Development

Park Type	Acreage per Thousand Population ¹			Size Service Radius	Service Radius ²	Level Area
	Minimal	Desirable	Optimal			
Local Parks	1.0	1.5	2.0	3 to 10 ac.	¼ to ½ mi.	3.0 ac.
School Parks	1.0	1.5	2.0	3 to 10 ac.	¼ to ½ mi.	3.0 ac.
District-wide Parks ³	3.0	4.0	5.0	10 to 20+ ac.	2 to 3 mi.	10 ac. typ.
Regional Parkland		3 acres		100+ acres	½ hour driving time	Varies ⁴
Open Space, Trails & Linear Parks		1 mi.		Within 10 min. walk	As needed to provide linkages	As req. for ADA

1. Modifying factors which must be taken into account when applying the above guidelines include: a) availability and cost of land, b) nature of neighborhood, c) population characteristics, and 4) accessibility.
2. Service area radii are generalized and must be evaluated on a case-by-case basis taking into account such variables as terrain, major man-made obstacles (such as freeways) and general availability of open space. Refer to the discussion of "Travel Distances" in this section.
3. District-wide parks include: community parks and centers, special use facilities, and athletic fields that serve neighborhood and community needs.
4. Level area required may vary widely depending on use, parking areas for community facilities – 2 acres avg.

Source: Hayward Area Recreation and Park District, Recreation and Parks Master Plan, June 2006.

REGULATORY SETTING

State Law

State law allows a city or county to impose fees as a condition of approving any development project if it can demonstrate a relationship between the fee and the purpose for which it is being earmarked. The jurisdiction must conduct studies to demonstrate a reasonable relationship between the need for the public facility and the type of development project. It must also be able to show there is a reasonable relationship between the amount of the fee and the cost of the public facility attributable to the development.¹ Cities and counties are specifically authorized to use such fees for park and recreation facilities.²

These so-called impact fees, which jurisdictions can impose on any type of development for which they can show a nexus or connection between the fee and its use, are distinguished from the fees applicable to subdivisions that the State Subdivision Map Act authorizes. This statute, known as the Quimby Act, allows a city or county to adopt an ordinance that requires the dedication of land or payment of in-lieu fees for park or recreational purposes as a condition of

¹ California Government Code, Section 66000 et. seq. (Mitigation Fee Act)

² California Government Code, Section 66002

approving a tentative or parcel map. The ordinance must include specific standards for determining the proportion of the subdivision to be dedicated or the amount of the fee to be paid. The dedication or payment may not exceed what is necessary to provide three acres of park area per 1,000 persons unless the amount of existing neighborhood and community park area exceeds that limit. In that case, the ordinance may require fees up to five acres per 1,000.³

Alameda County Park Dedication Ordinance

Alameda County’s Park Dedication Ordinance is applicable to all residential development regardless of whether it requires approval of a subdivision map. The ordinance requires residential developers (with certain specified exceptions) to dedicate or improve land or facilities or pay in-lieu fees based on the amount of land needed to provide five acres per 1,000 persons or 218 square feet per person. Table 3.2-7 lists the County’s current (effective July 1, 2006) requirements for parkland dedication and in-lieu fees.⁴

Table 3.2-7: Alameda County Park Dedication Fee Schedule

<i>Type of Unit</i>	<i>Sq. ft./ Unit</i>	<i>\$ In-Lieu Fee Total</i>
Single Family	628	11,550
Multiple	555	10,200
Secondary Unit	314	5,775
Mobile home	434	7,975

The Planning Department reviews the fees every other year to ensure that they meet contemporary standards. This review includes an inventory of existing parklands to set the basic standard, a review of population and household size, and a review of costs of land and development to set the in-lieu fee.⁵

Alameda County Parks, Recreation and Historical Commission

Alameda County has a Parks, Recreation and Historical Commission that consists of 15 members appointed by the Board of Supervisors. The Commission’s main duties relating to the parks and recreation system in the County include:

- Review and advise the Board of Supervisors, or other appropriate agencies, on all requests for county funds for parks and recreation facilities or programs;
- Assist with the coordination of applications for funding from other sources, such as the Federal Land and Water Conservation fund, between the various local, regional and county agencies;
- Assist the coordination of activities of the various local and regional park districts and departments to provide a balanced parks and recreation program in the county and avoid duplication of services;

³ California Government Code, Section 66477 et. seq. (Quimby Act)

⁴ Alameda County General Code, Section 12.20.120

⁵ Alameda County General Code, Section 12.20.200

- Periodically review the recreation element of the General Plan (the ROSA) and advise the Planning Commission and Board of Supervisors of appropriate amendments required to meet the needs of the residents of the county; and
- Maintain a county park directory, which shall be updated every two years.

Hayward Area Recreation and Park District

Local and community parks within Castro Valley are managed by the Hayward Area Recreation and Park District (HARD). HARD was established in 1944 by voters in the City of Hayward and surrounding areas as an independent special use district that serves the City of Hayward and the major unincorporated areas of Castro Valley, San Lorenzo, Cherryland, Ashland and Fairview. The 64-square mile service area has the largest population of any recreation district in the State. A special district, as defined by the State of California, is “a legally constituted government entity, which is governed neither by the city or county, and is established for the purpose of carrying on specific activities within defined boundaries.”

HARD Recreation and Parks Master Plan

HARD adopted an updated Recreation and Parks Master Plan June, 2006. The Master Plan presents a visionary and pragmatic approach for managing the District for the next 15 years, while providing specific policies and standards to guide day-to-day actions. The Master Plan has two basic components: data collection and data utilization. The primary goal of the plan is to allow the District to make short- and long-term decisions regarding their park facilities and recreation services based on researched facts. The Master Plan also establishes district-wide strategies for meeting the recreation needs of the District as a whole as well as recommendations for individual communities. Specific recommendations for the unincorporated community of Castro Valley include:

- CV-1: Coordinate with Alameda County to study the potential for providing downtown urban parks and recreation facilities as they prepare the Castro Valley Specific Plan and the Eden Hospital Campus Plan to meet neighborhood parkland needs in underserved areas.
- CV-2: Continue to require developers to contribute land for parks and funds for their development to ensure public parks are provided along walkable corridors that connect to transit bus stops and Castro Valley BART station to newly developing transit-oriented residential areas.
- CV-3: Work with Alameda County staff, boards, and commissions on the potential development of a park at the Stanton property.
- CV-4: Target key parcels for future expansion of older Parks by: a) modifying zoning in these park deficient areas to accommodate acquisition of potential parkland parcels as land becomes available for development; and b) partnering with developers and public agencies/special districts to jointly use land to create larger park parcels.
- CV-5: Evaluate and renovate, upgrade and expand, as appropriate the existing Castro Valley Community Center as a Community/Indoor Sports Center to: 1) increase existing

Community center capacity, and 2) accommodate multiple uses to meet changes in population and recreation trends over the life of the facility.

- CV-6: Work with the Eden Hospital campus staff to promote health and fitness within the community. Explore the opportunities to develop a shared community meeting/fitness facility and outdoor playground for children.
- CV-7: Where development within Castro Valley is proposed for hillside areas, evaluate each potential park land donation on a case-by-case basis dependent upon: recreational value, accessibility and potential benefit to the community; and the benefit generated to the District as a whole.
- CV-8: Grant park credit for non-traditional park lands only where provisions are included to ensure that the credited lands or facilities remain at their intended credited use on a long-term basis and that significant adverse environmental impacts will not occur to environmentally sensitive areas if the recreational access is provided on site. Where suitable land is not available, direct in-lieu fees toward other types of recreational facilities such as community/sports centers.
- CV-9: Expand arts and crafts programming to the neighborhood level at HARD's *Adobe Art Center* by providing classes that encourage intergenerational participation.
- CV-10: Strengthen the partnership with the Castro Valley Unified School District to ensure that HARD is involved in the design of new schools and retrofit of older schools to maximize the efficiency of available acreage for playground and other open space in order to:
 - a. Meet the physical fitness/health benefits that school children must have to help combat the obesity/health crises that is affecting youth in increasing numbers;
 - b. Address the concerns of cumulative maintenance and modernization needs associated with the existing aging facilities;
 - c. Create a better learning environment and improve the overall aesthetic appearance of the site.
- CV-11: Partner with the Castro Valley Unified School District in seeking funds to develop schools park sites so as to leverage funds and maximize the benefits that the public receives.
- CV-12: Work with the Castro Valley Unified School District to evaluate opportunities for providing alternative recreational facilities that would enable schools to enhance their function as community centers and increase after-school use of school facilities.

The Master Plan also includes an Implementation Plan that is designed to determine the scope of public park improvements to be funded, the responsibilities of the public and private sector

participants, and the methods of financing the improvements that limit the District's reliance on property taxes.

East Bay Regional Park District

The East Bay Regional Park District (EBRPD) provides and manages the regional parks for Alameda and Contra Costa Counties. The service area is 1,700 square miles and is home to 2.1 million people. The District is the primary provider of regional park facilities and activities for this two-county area. The regional park system consists of 55 regional parklands and over 1,000 miles of trails on approximately 85,000 acres of land. The District is governed by a publicly elected Board of Directors. Its administrative headquarters are located in Oakland, California.

Under the California Public Resources Code (Article 3,5500 series), the District has the power to "...acquire land...to plan...develop...and operate a system of public parks, playgrounds, golf courses, beaches, trails, natural areas, ecological and open space preserves, parkways, scenic drives, boulevards and other facilities for public recreation, for the use and enjoyment of all the inhabitants of the District...to conduct programs and classes in outdoor science education and conservation education...to employ a police force...prevent and suppress fires...and to do all other things necessary or convenient to carry out the purposes of the District." This broad mandate is key to understanding the District's complex responsibilities to its constituents.

Most of the regional parklands are large open space areas where the public can roam trails on foot, horseback, or bicycle. Users have access to 1,000 miles of trails within the parks, including 150 miles of inter-park regional trails. The natural conditions preserved by these parklands provide a healthy ecosystem for plants and wildlife. The District's Interpretive Division operates nine interpretive and educational centers (including two summer-only satellite centers and one outdoor exhibit), and provides programs to interpret the natural, cultural, and historical features of the region, such as the historic farm (Ardenwood), sand and coal mines (Black Diamond), Native American shell mounds (Coyote Hills), a botanical garden of California plants and a nature area (Tilden), oak woodland and grasslands (Sunol), and the San Francisco Bay shoreline (Crown Memorial State Beach).

The District's Master Plan 1997 is the guiding document for the District's decisions. This Master Plan defines the vision and the mission of the EBRPD and sets its priorities for the next ten years. It explains the District's multi-faceted responsibilities and provides a framework for the decisions of the Board of Directors and staff. The Master Plan defines public service as the District's primary function and provides policies and guidelines for achieving the highest standards of service in resource conservation, management, interpretation, public access, and recreation. Master Plan policies seek to guide the stewardship and development of the parks in such a way as to maintain a careful balance between the need to protect and conserve resources and the recreational use of parklands for all to enjoy now and in the future.

IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

Impacts of buildout of the proposed General Plan would be significant if they would:

- Increase the population using local, community-serving and regional parks to the extent that the Hayward Area Recreation and Park District, Alameda County, or the EBRPD would have construct or expand recreational facilities to meet the additional need without substantial deterioration of existing facilities.

METHODOLOGY & ASSUMPTIONS

The analysis considered existing and proposed General Plan policies, goals, and applicable regulations, as well as existing and proposed parks, open space, and recreation facilities within the Castro Valley Planning Area. The ratio of the total existing and proposed acres of parkland divided by the projected resident population as defined by the General Plan was then calculated. It is assumed that a lower ratio of parkland per resident would increase park deterioration.

SUMMARY OF IMPACTS

With full implementation of the proposed General Plan, the number of acres of local and school parkland per 1,000 residents would increase from 1.4 to 1.7 acres per 1,000. This increase would be due, in large part, to the proposed development of a new neighborhood park to serve the northwestern part of the Planning Area. The Plan also proposes to add 25 acres of community parkland and recreation facilities, including open areas to serve downtown residents, shoppers, and workers. This would slightly increase the acreage of community parks and recreation facilities from 4.0 to 4.1 acres per 1,000 residents. These and other proposed General Plan policies and actions would prevent deterioration of park facilities as a result of population growth so that implementation of the proposed General Plan would have less than significant impacts on parks and recreation facilities.

IMPACTS AND MITIGATION MEASURES

Numbered impacts and mitigation measures that relate to the significance criteria:

Impact

3.2-1: Future development could result in increased use of existing parks and recreation facilities, causing deterioration of park facilities. (*Less than Significant*)

Castro Valley has an existing population of approximately 60,200 residents and about 322 acres of local and community parks and recreation facilities, an overall ratio of 5.35 acres per 1,000 residents. Under the General Plan, the Castro Valley population is expected to increase to 64,935 residents, which would require the addition of 6.6 acres of neighborhood parks and about 19 acres of new community parkland to maintain the current parkland ration. The General Plan proposes to increase local and school park acreage by 30.7 acres and to add 25 acres of community parkland. Most of the additional local park acreage would result from the development of a new neighborhood park on the surplus EBMUD property or a

comparable site in the northwestern part of Castro Valley. This would increase the ratios for local and school parks and community parks to 1.7 and 4.1 respectively. Although the amount of local and school park acreage would still fall short of HARD’s standard of 2.0 acres per 1,000 residents, the overall ratio would exceed the HARD standard as shown in Table 3.2-6. Additionally, Castro Valley residents have easy access to about 5,600 acres of regional parkland, primarily in Lake Chabot Regional Park and Anthony Chabot Regional Park abutting the northern side of the Planning Area.

Table 3.2-8: Summary of Park Standards and Park Needs¹

Park Type	Acreage		(Acres/1,000 residents ²)			Acreage Needed to Maintain	
	Est. 2005	Proposed 2025	HARD Standard	Est. 2005	Proposed 2025	HARD Standard	2005 Acreage/1000
Local and School Parks	81.65	112.35	2.0	1.4	1.7	129.8	90.9
Community Parks	240.25	265.25	3.0	4.0	4.1	194.8	259.7
Total	321.9	377.6	--	5.4	5.8	345.5	350.6

1. Includes local, school and community parks only. Does not include the 43 acres associated with community centers or special use facilities.

2. Based on HARD’s minimal standard.

Proposed General Plan Policies and Actions that Reduce the Impact

Policy 8.2-1 Provide additional neighborhood and community park and recreation facilities in the Castro Valley planning area to increase and maintain a parkland standard of at least 5 acres for every 1,000 residents.

Policy 8.2-2 Continue to rely on the Hayward Area Recreation and Park District (HARD), the East Bay Regional Park District and other public agencies such as the school districts to develop and maintain neighborhood and community parks to serve Castro Valley.

Policy 8.2-3 Use HARD standards to identify areas that are underserved and as a basis for planning and prioritizing community and neighborhood parks and facilities to serve Castro Valley’s existing and projected population.

Policy 8.2-4 Where appropriate, provide smaller “pocket parks,” that can serve an area no more than one quarter mile in radius, with a population no greater than 4,000. Work with HARD to amend park standards to allow such “pocket parks” in developed areas where acquisition of larger size sites is not feasible.

Neighborhood park service areas should be bounded, but not intersected, by major streets.

- Policy 8.2-5** Neighborhood-serving parks include sites developed by private developers in accord with the standards of this plan that are permanently protected by dedication, easement, or other legal means against conversion to non-park purposes.
- Policy 8.2-6** Improve existing parks in Castro Valley. Renovate and add new facilities such as playgrounds, parking, restrooms, etc. Acquire key parcels adjacent to existing parks that would provide greater street frontage and visibility and/or make them safer and more usable.
- Policy 8.2-7** Ensure that the terrain of local park sites is suitable to accommodate the intended uses and activities, and doesn't present drainage problems, potential for landslides or other physical hazards or constraints.
- Policy 8.2-8** Locate and plan park and recreation facilities to facilitate access by foot, bicycle, and public transit as well as private automobile.
- Policy 8.2-9** To the extent possible, locate neighborhood and community recreation facilities near the center of their service areas, except where alternative sites may offer considerable advantages (e.g., significant natural features and vistas, incorporation of a public utility easement, etc.) over a centrally located site. Neighborhood and community recreation facilities should be conveniently accessible from all parts of their service areas and not separated from residents in their service areas by natural or manmade barriers. Sites that would require hazardous travel should generally not be used as recreation facilities.
- Policy 8.2-10** Neighborhood and community parks and recreation facilities should, to the extent possible, be located in or immediately adjacent to predominantly residential areas and within a reasonable 10 to 15 minute walking distance of the population the park is intended to serve.
- Policy 8.2-11** Site community parks and recreation facilities close to major streets and to public transit service.
- Policy 8.2-12** Where appropriate, community playfields may be located on the site of an adjoining intermediate or secondary school. These playfields will provide areas and facilities that are typically required to meet the school's physical education program needs but shall also be developed to meet needs from the broader community during after-school hours. Community park facilities, providing primarily for passive recreation, and a community center building, should also be included.

- Policy 8.2-13** Where possible, plan community parks to include natural areas, special use recreation areas and facilities, and community cultural resources to satisfy more diverse and specialized recreation needs and to preserve significant natural features and cultural resources.
- Policy 8.2-14** Park accessibility, use, and character shall be considered more important than size when considering the acquisition and development of new parks and recreation facilities.
- Action 8.2-1** Work with HARD to develop a new neighborhood park to serve the northwestern part of the Castro Valley Planning Area on the EBMUD property on Sydney Way or a comparable location.
- Action 8.2-2** Work with HARD to prioritize and obtain funding for renovation and expansion of existing parks.
- Action 8.2-3** Maintain the County’s in-lieu fee for park acquisition and development at the highest level allowed under State law. Evaluate the adequacy of the fee on a regular basis and adjust as necessary to ensure that adequate funds are available to provide parks and recreation facilities to meet the needs of Castro Valley residents consistent with this Plan.
- Action 8.2-4** Revise regulations to allow and encourage land dedication and improvement of small neighborhood parks in lieu of impact fees. Such parks may be owned and operated by HARD, or by another entity that provides for permanent public access.
- Action 8.2-5** Establish mechanisms to raise additional funds for park maintenance, particularly for new small neighborhood parks that do not meet current HARD standards for size of sites.
- Action 8.2-6** Amend the County zoning ordinance to ensure that all developments with 5 or more units are required to provide good quality common and private usable open space for active and passive recreation.
- Action 8.2-7** Amend the County zoning ordinance to require or provide incentives to non-residential development to develop and maintain open spaces including planted areas, seating, artwork and other features that are available for public use.
- Action 8.2-8** Work with HARD and the East Bay Regional Park District to monitor usage and demand for parks and recreation facilities to ensure that they are meeting the needs of the community given changes in racial, ethnic, age and other demographic characteristics.
- Action 8.2-9** Work with the Castro Valley Unified School District and HARD to allow greater public use of school site recreational and park facilities after school hours. This may involve establishing extended hours for public use, on-site

supervision, scheduling systems, joint operations and maintenance agreements, and other programs.

- Action 8.2-10** Work with the Castro Valley Unified School District to ensure that bond measures include provisions to maximize opportunities for public use of recreational and cultural facilities.
- Action 8.2-11** Assess the feasibility of using the existing Castro Valley Library on Redwood Road as a recreation facility when the new library opens.
- Action 8.2-12** Work with Eden Medical Center to incorporate a physical fitness center within the hospital campus and landscaped open areas that will be available for general public use.
- Policy 8.3-1** Incorporate trails, greenways, and linear recreation facilities as integral components of new development.
- Policy 8.3-2** Increase public awareness of trails and pathways.
- Policy 8.3-3** When feasible, locate trails within the boundaries of flood control and riparian corridors. Site creekside trails to minimize disruption to riparian areas.
- Action 8.3-1** Amend the County subdivision ordinance to require projects abutting existing parklands to provide linkages to the trail system.
- Action 8.3-2** Study the feasibility of developing a pedestrian and bicycle path linking the new Castro Valley Library to surrounding commercial and residential areas along Castro Valley Creek.
- Action 8.3-3** Identify opportunities for acquiring land along Castro Valley's natural watercourses to meet multiple objectives of flood protection, recreation, improved water quality, and increased non-motorized connectivity between residential, commercial, and civic areas.
- Action 8.3-4** Coordinate with HARD, the Cities of Hayward and San Leandro, and the East Bay Regional Park District to provide trailheads and linkages to a multi-use trail system.
- Policy 8.4-3** To the extent possible given fiscal considerations, ensure that public school facilities are available for community use and activities that will not interfere with the local school districts' primary educational mission.
- Policy 8.4-4** If school facilities are no longer needed for and used for public education, first consideration should be given to the use of the sites/facilities for alternative public purposes, and in particular, for parks and recreation and other similar community uses.

- Action 8.4-1** Consider providing County subsidies to the Castro Valley Unified School District to maximize opportunities for community use of school facilities.
- Action 8.4-4** Work with the Castro Valley and Hayward Unified School Districts, the Alameda County Library, HARD, and Eden Medical Center to establish a network of community centers that offer services such as childcare, health care, and recreational programs.
- Action 8.4-5** Work with the Castro Valley Unified School District to ensure that bond measures include provisions to maximize opportunities for public use of recreational and cultural facilities.
- Action 4.3-2** Require preparation of a Specific Plan, Precise Plan, or very detailed Master Plan prior to any subdivision of the property at Sydney Way, Stanton Avenue, and Carleton Avenue. As part of any subdivision, public parkland shall be dedicated instead of or in addition to payment of impact fees to meet open space requirements, so that parkland is provided on that site. The appropriate size of the park shall be determined as part of the plan preparation.
- Action 4.5-8** Include the vacant and underused properties at the southeast corner of Heyer Avenue and Center Streets in Redevelopment planning for mixed-use development and community facilities such as a neighborhood park.
- Action 4.7-4** Create a variety of attractive publicly-owned and privately-owned public spaces throughout the Central Business District including seating areas, landscaping, water-features, and public art.

Mitigation Measures

No additional mitigation measures are required.

REFERENCES

Alameda County General Code, Chapter 12.20 (Park Dedication Requirements)

Alameda County Parks, Recreation & Historical Commission, *Parks, Recreation & Historic Sites Directory*, 2003.

California Government Code

California Public Resources Code

Chavez, Linda J.P., East Bay Regional Park District, July 22, 2004

East Bay Regional Park District, *Master Plan 1997*, adopted December 17, 1996.

East Bay Regional Park District, Website: <<http://www.ebparks.org/parks.htm>>

Hayward Area Recreation & Park District, *Recreation and Parks Master Plan*, June, 2006.

Lepore, Larry, HARD Superintendent of Parks, November 29, 2005; February 7, 2007.

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3.3 Public Facilities and Services

This section describes the environmental and regulatory setting for a variety of public facilities and services that would be affected by implementation of the proposed Castro Valley Plan. This analysis includes an assessment of environmental impacts on public schools, police and fire services; water supply; wastewater; and solid waste.

ENVIRONMENTAL SETTING

PHYSICAL SETTING

Schools

There are 16 public schools that serve Castro Valley--10 elementary schools, three middle schools, and three high schools. The majority of Castro Valley's residential areas are within the Castro Valley Unified School District (CVUSD), but the area south of Interstate 580 and west of Fairview Avenue is part of the Hayward Unified School District. Students in the area west of Fairview Avenue attend Strobridge Elementary, Bret Harte Middle School, and Hayward High. (Figure 3.3-1)

In 1985, when the current Castro Valley General Plan was adopted, the number of students in Castro Valley was declining, resulting in the closure of several schools and sale and lease of school sites. By 1980, enrollment in the CVUSD had dropped from 5,046 in 1970 to 4,360. This began to change during the 1990s, due to both natural increase and new residential construction. Total enrollment in the CVUSD increased almost 19 percent during the last decade and is now over 9,600, as shown in Table 3.3-1; Castro Valley High School and all of the CVUSD middle schools are now at capacity and few spaces are available in the elementary schools. In contrast, HUSD enrollment increased only 2.5 percent during the same period and has declined 8.1 percent district-wide since 2000-2001. The two schools that serve Castro Valley are among those that have lost enrollment in recent years. Since 1998-99, enrollment at Strobridge Elementary dropped 3.5 percent and Bret Harte Middle School's student population declined 19.7 percent.⁶

Several private and parochial schools serve Castro Valley and nearby communities. The larger facilities include Camelot (pre K-6) at 2330 Pomar Vista Avenue, Our Lady of Grace (K-8) at 19920 Anita Avenue, and two K-6 elementary schools operated by Redwood Christian Schools at 19300 Redwood Road and 20600 John Drive.

The Castro Valley Adult School and the Hayward District's Laurel Adult School at 2652 Vergil Court provide a variety of programs including career training, professional development, and English as a Second Language (ESL).

⁶ Ed-Data, Education Data Partnership < <http://www.ed-data.k12.ca.us/welcome.asp> >

Table 3.3-1: Castro Valley K-12 Public Schools

<i>Elementary Schools (K-5):</i>	<i>Enrollment</i>	<i>Teachers</i>	<i>Year Built</i>
Castro Valley	371	18	1945
Chabot	383	20	1953
Independent	487	22	1953
Jensen Ranch	364	19	1995
Marshall	395	22	1949
Palomares	128	5	1955
Proctor	519	28	1955
Stanton	456	24	1952
Strobridge ¹	518	30	1955
Vannoy	372	25	1955
<i>Total Elementary</i>	<i>3,993</i>	<i>213</i>	<i>—</i>
<i>Middle Schools (6-8)</i>			
Canyon	1,348	54	1964
Creekside	810	31	(Major Renovation) 1997
Bret Harte ¹	569	24	—
<i>Total Middle School</i>	<i>2,727</i>	<i>109</i>	<i>—</i>
<i>High School (9-12)</i>			
Castro Valley	2,686	112	1956
Redwood Alternative	193	8	c.1995
<i>Total High School²</i>	<i>2,879</i>	<i>120</i>	<i>—</i>
Total Public Schools Enrollment	9,599	438	

2. Hayward Unified School District

3. Total excludes Hayward High School enrollment.

Source: California Basic Education Data System (CBEDS), 2004-2005.

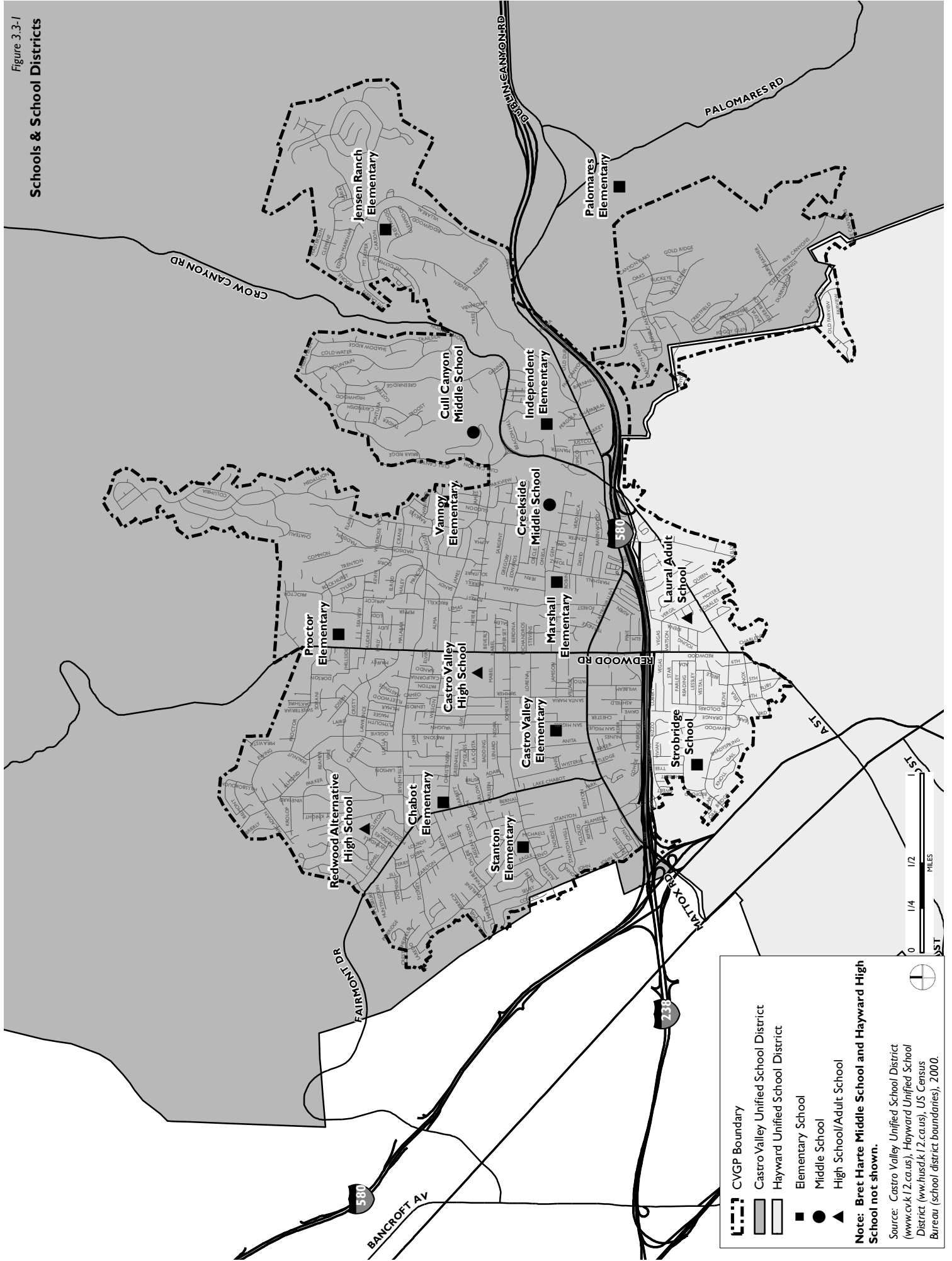
Police Services

Alameda County’s Extended Police Protection County Service Area (CSA), administered by the County Sheriff’s Office, was established by the Alameda Local Agency Formation Commission (LAFCo) in 1991 as a dependent special district to supplement funding for police services in the unincorporated area.

The CSA serves a 428.3 square mile area with a population of 183,149; about a third live in Castro Valley. Based on the 2000 Census, the Sheriff’s Department estimated that it provides services to approximately 136,000 residents in the County’s unincorporated areas; roughly 43 percent are Castro Valley residents.

The County Sheriff provides dispatch emergency services from its center on Foothill Boulevard in San Leandro, which receives 911 calls and dispatches patrols from the Eden Township Substation on 150th Avenue in San Leandro.

Figure 3.3-1
Schools & School Districts



Legend

- CVGP Boundary
- Castro Valley Unified School District
- Hayward Unified School District
- Elementary School
- Middle School
- High School/Adult School

Note: Bret Harte Middle School and Hayward High School not shown.

Source: Castro Valley Unified School District (www.cv.k12.ca.us), Hayward Unified School District (www.husd.k12.ca.us), US Census Bureau (school district boundaries), 2000.

In FY 2002-2003, the Sheriff received 72,353 calls for service, including 44,062 “911” calls. Average response times for the Sheriff’s Office are 11:48 minutes for calls requiring an immediate emergency response and 17:13 for non-emergency calls requiring an urgent response. This is substantially higher than the 4:25 median emergency response time for all Alameda County police service providers. Response times in Castro Valley are somewhat better than in the less-densely developed Livermore Valley where average response time for emergency response is 37:07 minutes. There are 198 sworn officers assigned to the Eden Township substation in San Leandro, which serves Castro Valley.

On a per capita basis, the Sheriff Department’s staffing levels are lower than the countywide average for all jurisdictions with 1.4 per 1,000 residents compared with 1.6 sworn officers per 1,000 residents for all county police services providers. The substation building was constructed in 1953 and previously served as a County health department building. The Sheriff’s Office proposes to consolidate its existing law enforcement facilities in a new complex to be constructed on the site of the existing Fairmont Animal Shelter on Fairmont Drive, about 1.2 miles west of Castro Valley.

Fire Protection

The Alameda County Fire Department (ACFD) provides fire and paramedic service to most of the Castro Valley Planning Area. The Five Canyons area is served by the Fairview Fire Protection District. Under the Alameda County Mutual Aid Plan, Hayward, and Union City Fire Departments also respond to incidents with alarm levels of 2 or higher. In addition, the Fremont Fire Department, Hayward and Union City provide mutual aid for wildland fires.⁷ The ACFD has identified Station 5 as a one of three in the District that need replacement. In addition, three of the five fire stations serving Castro Valley (4, 6, and 7) need seismic retrofitting.

The following facilities serve Castro Valley:

1. ACFD Station 4 (20336 San Miguel Avenue, Castro Valley). This station, has one engine company and one truck company. It is also the home for the Battalion 2 Battalion Chief and the HazMat Support Unit. The station houses a reserve engine. An Air, Light Unit, and a 2,500-gallon water tender, water rescue boats and various other Department vehicles are kept on the grounds. This station, which was built in 1962 and serves the downtown and adjacent areas, has the highest staffing level in the District.
2. ACFD Station 5 (18770 Lake Chabot Road, Castro Valley). The station has one engine company, which also staffs a patrol unit used for grass fire responses. This station services the northwestern area of Castro Valley. This station, which was built in 1962, has been identified as a candidate for replacement.
3. ACFD Station 6 (19780 Cull Canyon Road, Castro Valley). This station has one engine and one patrol unit. Other buildings on site are a workshop used for wooden ladder repair and maintenance and a storage room for Department records. An antique 1915

⁷ Alameda County Local Agency Formation Commission, Final Municipal Service Review, Vol. 1 – Public Safety Services, September 15, 2004, p. 83.

Seagrave fire engine used for public events and parades is also housed and maintained at this station. Station 6 services all of the canyon areas in the northeastern part of Castro Valley.

4. ACFD Station 7 (6901 Villareal Avenue, Castro Valley). The station houses one engine and a specialized 4-wheel drive Type 3 engine. The station, which services Highway 580 east to the Dublin Grade and west to Strobridge Avenue, needs seismic improvement. It also services the urban wild land interface commonly found in its area.⁸
5. FFPD Station 8 (25862 Five Canyons Parkway, Castro Valley). The Fairview Fire Protection District contracts with the City of Hayward to provide fire protection and emergency medical services at this station. Centex Homes built the fire station in 2000 to replace old Station 8 and conveyed property to the County, which then transferred ownership to the FFPD in 2004. The station has two engines and is staffed with at least three firefighters, one of whom is a paramedic.⁹

ACFD is able to respond to fire and medical response calls within five minutes 90 percent of the time, which is within the National Fire Protection Association guideline of fire response times in six minutes at least 90 percent of the time¹⁰ This is slightly below the countywide median of 4.53 minutes due to the significantly longer response times (as long as 40 minutes) in the more rural eastern parts of the County. The response time in Castro Valley and other urban unincorporated areas, where stations are closer together, is significantly faster.¹¹

In urban areas, fire stations should be located within five minutes driving distance. Castro Valley has five fire stations to cover a 38-square mile area that includes land outside the voted-approved urban growth boundary. This is an average 7.6-square mile coverage area per station compared to a median of 3.7 square miles per station countywide. The four ACFD stations each serve an average population of 14,323, compared with a median residential population of 15,050 per station countywide. FFPD Station 8 serves an estimated population of 13,275. Sixteen fire and paramedic staff members serve the Castro Valley stations – an average of four personnel per station and 3.85 staff per 1,000 residents. Station 8 has three to four firefighters. Countywide, there are approximately 16 fire and paramedic staff members per station and 1.2 staff per 1,000 residents. Thus, while the stations serving Castro Valley are smaller, the ratio of fire and paramedic personnel to general population is higher than that of Alameda County as a whole.

⁸ <http://www.co.alameda.ca.us/fire/>

⁹ <http://www.hayward.co.gov/webware/Default.aspx?Message=1195&t=-1>

¹⁰ Alameda County Local Agency Formation Commission, op. cit, p. 85

¹¹ Alameda County Local Agency Formation Commission, Public Safety Municipal Services Review, Appendix A, pp. 26-27.

Water Supply

Castro Valley is in the 325-square mile service area of the East Bay Municipal Utilities District (EBMUD). EBMUD provides water service to the Castro Valley area from 15 pressure zones ranging in service elevation from 100 to 950 feet. Existing facilities include 21 reservoirs and water tanks that provide water to Castro Valley as well as to some adjacent unincorporated areas and parts of Hayward.¹² As part of its Pressure Zone Planning Program, EBMUD is conducting a series of studies to identify improvements that may be needed to serve pressure zones through 2030.

Based on current projections, EBMUD has also determined that it does not need to use two properties it owns in Castro Valley. A 26-acre parcel at Sydney, Carleton, and Stanton was purchased in the 1950s to construct the Redwood Filter Plant that would have served Castro Valley and Hayward. A 2.18-acre parcel off Sydney is also considered surplus. As required by State law, EBMUD will first offer the properties to the County for housing development. If this is not feasible, the sites would be made available to other public agencies before offering them for sale to a private developer.

As part of its \$189 million Seismic Improvement Program (SIP), EBMUD recently completed construction of the Southern Loop Pipeline, an 11-mile long emergency transmission pipeline between Castro Valley and the San Ramon Valley that would provide an alternate water supply route after a major earthquake. The Southern Loop Pipeline, which connects the southern ends of EBMUD's major pipelines, is designed for flow in both directions so that it can provide an emergency water supply following major seismic events on either the Hayward or the Calaveras Faults or other emergency events that could disrupt the normal flow of water to Castro Valley.

Wastewater

The Castro Valley Sanitary District (CVSD) provides and maintains the sewage collection system that serves Castro Valley. The current service area includes virtually all of the land within the voter-approved Urban Growth Boundary. In September 2004, LAFCO approved the annexation of an additional 2.5 acres east of the intersection of Grove Way and Center Street into the District to allow residential development.¹³ The only developed areas that continue to rely exclusively on private septic systems are off Crow Canyon Road beyond Cold Water Drive, off Cull Canyon Road, and in Palomares Canyon. The sewage collection system in the District is comprised of approximately 155 miles of sewers, eight sewage pumping plants, and five additional miles of outfall sewer outside the District boundaries.

Sewage from the District is treated under contract by the Oro Loma Sanitary District at the Oro Loma/Castro Valley Water Pollution Control Plant in San Lorenzo. CVSD own 25 percent of the plant. Castro Valley Sanitary District is entitled to a nominal average dry-weather flow of 5.0 million gallons per day (MGD) through the Oro Loma plant, which has a total plant

¹² Letter from David J. Rehnstrom, EBMUD, August 10, 2004.

¹³ Summary Action Minutes, Alameda Local Agency Formation Commission, Regular Meeting, September 16, 2004

capacity of 20 MGD. In 2000, the average daily dry weather flow was 15 MGD. Daily dry-weather flows from the CVSD have recently been averaging 3.7 MGD. Under drought conditions in the recent past, the daily dry-weather flow averaged 2.3 MGD. The plant discharges to San Francisco Bay through pipelines operated by the East Bay Dischargers Authority.

Castro Valley's share of the cost of constructing the Oro Loma plant and the cost of building the 5-mile outfall sewer from the District to the treatment plant was financed with a \$2,975,000 bond issue that the District's voters approved in 1966. The last of these bonds was paid off in 1998. The current cost to provide the residents of Castro Valley with sewerage collection and treatment services as required by federal and State law is \$157.50 annually per household. Other rates are prescribed for commercial and institutional users of the sewer system. Sewage treatment costs for the District amount to approximately 49 percent of the total annual sewage operations budget, excluding capital improvements.¹⁴

Like all other sewerage agencies, Castro Valley Sanitary District must comply with federal and State environmental requirements regarding the quality and method of discharge of treated effluent to the nation's waterways. The Federal Clean Water Act of 1972, and similar State legislation, required elimination of the former near-shore discharge into San Francisco Bay. The local cost to Castro Valley residents was minimized by joining with four other agencies (the Cities of San Leandro and Hayward, and the Union and Oro Loma Sanitary Districts). Castro Valley's share of the construction costs for a joint project, commonly known as the "Super Sewer," was approximately \$8 million, of which \$6 million was provided by Federal grants, \$1 million by State grants, and \$1 million in local funds. The "Super Sewer" was put into operation in April of 1981.

The District has a grant program that pays up to 50 percent of the cost of replacing or repairing building laterals with a maximum reimbursement of \$2,000 per lateral. The lateral, which connects a home's plumbing system to the public sewer main, is the property and responsibility of the property owner. Older laterals are often a significant source of infiltration and inflow.

CVSD does not presently have a program for recycling any of its wastewater flows. Although the majority of the wastewater generated is not recycled, there are a number of recycled water projects throughout the EBMUD service area, such as a golf course and landscape irrigation project, that might be appropriate in the Castro Valley area. State law allows EBMUD to require the use of recycled water for non-domestic purposes when it is of adequate quality and quantity, available at reasonable cost, not detrimental to public health, and will not harm plant life, fish, or wildlife. To date, EBMUD has been able to promote the use of recycled water through incentives rather than using this mandate. These incentives are primarily in the form of subsidies to fund facility retrofits and rate discounts providing lower connection fees for new customers who use recycled water.

¹⁴ Castro Valley Sanitary District Website <<http://www.cvsan.org/general.htm>>

Solid Waste

The Castro Valley Sanitary District handles refuse collection and disposal in the Planning Area. The District collects solid waste, hauls it to the Davis Street Transfer Station and then to the Altamont Landfill east of Livermore. The District's solid waste program is mainly funded by user fees.

The Sanitary District is a member of the Alameda County Waste Management Authority, a County-wide organization to divert materials from the landfill into reuse, recycle, and reduction programs. Through a franchise agreement with Waste Management of Alameda County the District collects refuse, green wastes, and recyclables within the District.

The 1989 enactment of the California Integrated Waste Management Act (AB 939) has resulted in a major refocusing of District activities. This legislation mandated that the amount of material sent to the Altamont Landfill must be reduced by 25 percent by 1995 and by 50 percent by 2000. Alameda County has set a countywide goal at 75 percent diversion by 2010.

As a first step to reaching the diversion goals, the Sanitary District implemented a residential curbside recycling program in April of 1991. In 1993, additional materials were added to the program. The curbside program also operates as a "mini" household hazardous waste collection, accepting used motor fluids and latex paint. In late 1994, a yard waste collection program was implemented and has resulted in a large diversion of residential "green waste," such as grass clippings and yard trimmings. The District's 1995 and 2000 diversion goals were easily achieved with the residential recycling and green waste programs. In order to help meet the 2010 75 percent diversion goal, the District launched a residential curbside food waste collection program in March 2002. In November 2002, a construction and demolition debris recycling program was initiated.

REGULATORY SETTING

The provision of public services and safety services in Castro Valley is the responsibility of several local, regional and state agencies. Public education is primarily administered by the Castro Valley Unified School District with the Hayward Unified School District serving some sections of Castro Valley. Police protection is provided by the County Sheriff through the County's Extended Police Protection county Service Area and the Alameda County Fire Department provides fire and paramedic service to most of the Planning Area except for the Five Canyons area, which is within the Fairview Fire Protection District. Water supply services are provided by EBMUD while wastewater and solid waste services are the responsibility of the Castro Valley Sanitary District.

State law authorizes public agencies to impose development impact fees to defray all or a portion of the cost of new or expanded public facilities needed to accommodate new development. (Government Code Section 66000 et. seq.) Such fees can not be used to fund operation and maintenance of public facilities. These are financed by user fees and taxes.

IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

Impacts of buildout of the proposed General Plan would be significant if they:

- Require the provision of (or need for) new or physically altered school facilities, construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for schools;
- Require the provision of (or need for) new or physically altered police or fire safety facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection;
- Result in the need for new or expanded entitlements to water supply resources;
- Result in the construction of new water or wastewater treatment facilities (or the expansion of existing facilities), which could cause significant environmental effects;
- Exceed wastewater treatment requirements of the Regional Water Quality Control Board;
- Result in a determination by the wastewater treatment provider which serves (or may serve) the area that it would not have adequate capacity to serve the anticipated demand in addition to the provider's existing commitments;
- Require the need for construction of new storm water drainage facilities (or the expansion of existing facilities) which could cause significant environmental effects;
- Would not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- Would not comply with federal, state, and local statutes and regulations related to solid waste.

METHODOLOGY & ASSUMPTIONS

This analysis considered current and proposed General Plan policies and goals, existing and proposed public and safety services within Castro Valley, and applicable regulations and guidelines.

Future demographic trends are more accurately projected when calculations are performed closer to the horizon date with the most current data. For this reason, school districts in Castro Valley do not project enrollment farther than 10 years into the future. For the purposes of this General Plan, 20-year enrollment projections are required in order to illustrate the broad trends that may occur during the Plan's implementation period. To calculate future school enrollment in Castro Valley, the percentage of the population enrolled in public elementary

schools in Alameda County, as projected by the Association of Bay Area Governments, (ABAG), was applied to the Castro Valley 2025 General Plan buildout population.

To ensure that new development does not adversely affect the County's ability to provide police and fire services, the total projected population under the proposed General Plan at buildout in 2025 (64,935) was divided by 1,000 and then multiplied by the existing ratio of police or fire personnel (1.4 and 1.2, respectively) necessary to maintain the existing ratios for police and fire personnel.

The analysis of water demand, services, and facilities is based on discussions with the East Bay Municipal Utilities District (EBMUD).

The analysis of wastewater demand, services, and facilities is based on discussions with the Castro Valley Sanitary District. The analysis of solid waste demand, services, and facilities is based on information provided by the California Integrated Waste Management Board.

SUMMARY OF IMPACTS

Implementation of the proposed Plan would allow a moderate increase residential and commercial development, which would increase the population and number of jobs in the Planning Area. Additional residential development may cause overcrowding in the public schools, most of which are already at capacity. This impact is less than significant because the number of additional students is probably not large enough to warrant the construction of new schools or the expansion of existing schools. Developers of new housing are required to pay school impact fees or provide other mitigation, which would reduce impacts to less-than-significant levels. Public safety, water supply, wastewater, and solid waste facilities and services are all adequate to accommodate the additional development that may occur by 2025 under the proposed Plan. The Plan proposes a series of policies and actions that would further reduce the impact on these utilities and services.

IMPACTS AND MITIGATION MEASURES

Impact

3.3-1 Increased residential development may require new or expanded school facilities. (Less than Significant)

Under the proposed General Plan, the projected population would be 64,935 in the year 2025. Increases in citywide population would generate comparable increases in the youth population (age 5-19). ABAG has estimated population projections according to age group for each county for the year 2025. ABAG projections were used to establish the distribution of population in Castro Valley, as shown in Table 3.3-2.

Table 3.3-2: Projected Population by Age Category for Castro Valley (2025)

Age Class	2025 Population	Percentage of Population
Total 2025 Population	64,935	
Ages 5 through 9	3,831	5.9%
Ages 10 through 14	3,831	5.9%
Ages 15 through 19	4,091	6.3%
Total Youth Population (5-19)	11,753	18.1%

Source: 2002 ABAG Projections

Youth, or school-aged children, would constitute approximately 18 percent of Castro Valley’s population in 2025. It is assumed, based on Castro Valley enrollment data, that approximately 87 percent of the youth population would be enrolled in public school in 2025. Table 3.3-3 distributes youth population by grade range and calculates projected demand for public schools in 2025.

Table 3.3-3: Projected K-12 Public School Enrollment by Grade Range

School	Current Enrollment	Projected Enrollment ¹	Increase in Enrollment
Elementary School	3,993	4,232	239
Middle School	2,727	2,890	163
High School	2,879	3,051	172
Total	9,599	10,173	574

1. Assumes 87 percent of the youth population is enrolled in public school.

Source: Dyett & Bhatia, 2006.

Implementation of the draft Plan could increase enrollment in the public schools serving Castro Valley by 574 students by year 2025, almost 6 percent above the public school enrollment in 2004-2005. This is an average increase of about 24 students in each of the elementary schools and 54 students in each of the middle schools. While specific capacity of Castro Valley schools is not known,¹⁵ as stated above, Castro Valley middle schools are already at capacity with few spaces available. Although the projected additional student population may result in some overcrowding, the number of additional students is probably not large enough to warrant the construction of new schools or the expansion of existing schools. As such, the potential impact of the proposed Plan on Castro Valley public schools is considered to be less than significant.

¹⁵ The Castro Valley Unified School District did not respond to requests for specific information on the capacity of individual facilities in the District.

State law allows school districts to assess impact fees to minimize the impact of residential development on school facilities. Fees may be increased to keep up with inflation. (Government Code Sec. 53080 and 65995) Both Castro Valley and Hayward Unified School Districts require payment of school facilities mitigation fees for all new residential development. Under State law, payment of this fee is considered to be adequate mitigation of development impacts on the provision of school facilities. If the school districts determine that the expansion of existing schools is necessary to accommodate enrollment increases, specific projects would be subject to environmental review on a case-by-case basis as required to comply with State and local guidelines.

Proposed General Plan Policies that Reduce the Impact

The proposed Plan includes policies that would mitigate impacts on public schools, which include changing the school district boundaries so that the two HUSD schools that serve the neighborhood south of I-580, both of which are operating under capacity, could become part of the CVUSD. Other policies and actions that could reduce potential impacts are:

- Policy 9.1-1** All development within the Castro Valley urban area shall be provided with adequate basic urban services and facilities, including: roads; flood control; drainage, erosion and siltation control; water supply; gas and electric power; sewage and solid waste collection, treatment, and disposal; educational services; library services; parks and recreation facilities and services; police protection; and fire protection.

- Policy 9.1-3** Ensure that new development pays its fair share of the cost of infrastructure necessary to support growth without reducing level of service and, where feasible, support ongoing operating/maintenance costs where these would exceed costs normally associated with serving other development in the community. Fees shall be proportionate to the new development's impact.

- Policy 9.1-5** Promote environmental justice in the provision of public facilities and services working with public agencies that provide public facilities and services to create and expand opportunities, facilities, programs, and services to meet the needs of all segments of the community in a manner that will increase and enhance the quality of life for all Castro Valley residents and avoid over-concentration of facilities and services to the detriment of residents.

- Policy 8.4-1** Provide sufficient K-12 school sites in the Castro Valley Planning Area and facilitate their development to meet or exceed State standards and the standards of the local school districts.

- Policy 8.4-6** Support changes in school district boundaries to include Castro Valley neighborhoods south of I- 580 in the Castro Valley Unified School District.

Mitigation Measures

No mitigation measures are required.

Impact

3.3-2 Implementation of the proposed Plan would increase the population, amount of development, and number of jobs in the Planning Area, which would require additional police and fire services. *(Less than Significant)*

New residential, mixed use, and office uses in the downtown area, as well as additional residential uses throughout Castro Valley will increase the population served by police and fire personnel. Additionally, reuse and intensification activities throughout Castro Valley's arterial corridors will contribute to higher residential densities and population, which could increase crime rates and alarm calls. Due to such a small increase in population over existing conditions (approximately 4,735), only a minimal number of new police officers and fire fighters would be required to maintain existing ratios (less than 10 each) and no new or expanded police or fire facilities would be required to maintain existing service levels. The proposed Plan would, therefore, have a less than significant impact on police and fire services. Furthermore, the proposed Plan includes the following policies that would further reduce impacts on police and fire services.

Proposed General Plan Policies that Reduce the Impact

In addition to Policy 9.1-1 listed above:

- Policy 9.1-4** Ensure that appropriately located land is designated for provision of public utilities and services.
- Policy 9.2-1** Adopt and maintain public safety service standards that meet or exceed standards for comparable incorporated cities in Alameda County.
- Policy 9.2-2** Promote a community-oriented approach to law enforcement.
- Policy 9.2-3** Maintain and regularly update a standardized Emergency Management Plan in coordination with the Alameda County Fire Department, the East Bay Regional Parks District, and public safety agencies in surrounding cities.
- Policy 9.2-4** Incorporate defensible space principles in new development.
- Policy 9.2-5** Plan new public and private buildings to minimize the risk of fires and identify measures to reduce fire hazards to persons and property in all existing development.
- Policy 9.2-6** Ensure that disaster plans for the Castro Valley community are kept up-to-date and that all residents and businesses are informed of the plan and its procedures.
- Policy 9.2-7** Improve the capability of Alameda County public safety agencies, Eden Medical Center and other public facilities to respond to public emergencies such as earthquakes and major fires.

- Action 9.2-1** Regularly review existing funding sources and identify new sources to maintain and improve police services.
- Action 9.2-2** Use the construction of the new law enforcement complex as an opportunity to increase community awareness of Sheriff's office activities and services in Castro Valley and other unincorporated communities.
- Action 9.2-3** Review the County subdivision and zoning ordinances with County law enforcement personnel and the California Highway Patrol (CHP) to identify standards that may conflict with the goal of creating a safer environment.
- Action 9.2-4** Adopt design guidelines and criteria that address security and safety issues. Involve County law enforcement personnel in the review of proposed development projects to identify and revise design features make development less safe or create potential hazards.
- Action 9.2-6** Designate and, if necessary, upgrade one of the Alameda County Fire Stations in Castro Valley to serve as an Emergency Operations Center in the event of a major earthquake or fire.

Mitigation Measures

No mitigation measures are required.

Impact 3.3-3 Implementation of the proposed Plan would result in new residential and commercial development, which could increase the demand for water beyond available distribution capacity. (*Less than Significant*)

The EBMUD Board of Directors adopted an updated Urban Water Management Plan (UWMP) in November, 2005. The UWMP provides an overview of EBMUD's water supply sources and usage, recycled water and conservation programs and is part of EBMUD's long-range planning to ensure water service reliability for EBMUD customers, especially during multiple-year drought periods.

EBMUD may need to replace some existing facilities during the life of the proposed Plan. However, the District does not anticipate any constraints to providing water to development in the existing built-out areas of Castro Valley, as long as new development doesn't exhibit any anomalies in water use. Moreover, the District's planning through the year 2030 is based on existing County plans, which project a higher population and more employment for Castro Valley than the proposed Plan. As part of its Pressure Zone Planning Program, EBMUD is conducting a series of studies to identify improvements that may be needed to serve pressure zones during the planning period and through 2030.

Based on a District-wide estimate of 166 gallons per day per capita,¹⁶ the potential increase in Castro Valley's population could increase usage by about 786,000 gallons per day. This represents about .004 percent of the average daily consumption District-wide in 2005.¹⁷

The draft Plan proposes policies and actions to support improvements to the water supply system and, at the same time, conserve water resources. These proposals would further reduce any potential impacts on water supply systems to less than significant levels.

Proposed General Plan Policies that Reduce the Impact

- Policy 9.3-1** Coordinate with the East Bay Municipal Utilities District to ensure the availability of water supply and distribution systems to meet needs of present and future residents and businesses, including fire protection needs.
- Policy 9.3-3** Reduce the need for developing new water supply sources by encouraging new development to incorporate water conservation measures to decrease peak water use.
- Policy 9.3-4** Educate the public about the importance of water conservation.
- Policy 9.3-5** Promote appropriate use of recycled water for new and existing non-residential development.

Mitigation Measures

No mitigation measures are required.

Impact

3.3-4 New development may exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB). (*Less than Significant*)

The Castro Valley Sanitary District is entitled to a nominal average dry-weather flow of 5.0 million gallons per day (MGD) through the Oro Loma plant, which has a total capacity of 20 MGD and had an average daily dry weather flow of 15 MGD in 2000. Daily dry-weather flows from the CVSD have recently been averaging 3.7 MGD, which is well below the threshold limit. Based on a typical wastewater generation rate of 80 percent (i.e. 80 percent of the water used enters the wastewater system), the additional development projected under the draft Plan would generate about 628,800 GPD, a 1.7 percent increase in the current average daily dry water flow. The small increase is well within the CVSD's 5.0 MGD daily entitlement. Impacts on the wastewater treatment system would, therefore, be less than significant. Furthermore, the draft Plan proposes policies that would establish water recycling programs as well as other measures designed to reduce wastewater generation.

¹⁶ *All About EBMUD*, p. 20.

¹⁷ *Water for Life, Annual Report 2005*, p. 15.

Proposed General Plan Policies that Reduce the Impact

In addition to the policies which support water conservation listed above, the proposed Plan includes:

- Policy 9.4-1** Continue to coordinate with the Castro Valley Sanitary District to provide for collection, transfer, treatment, and disposal of wastewater from existing and proposed development in the Castro Valley planning area.
- Policy 9.4-2** Reduce the need for sewer system improvements by requiring new development to incorporate water conservation measures.
- Policy 9.4-3** Reduce release of contaminants into the water system by requiring new development to minimize storm drain runoff on project sites.
- Policy 9.4-4** Work with the East Bay Municipal Utilities District to develop wastewater reclamation programs to supplement the supplies of water available to new and proposed development in the planning area.
- Policy 9.4-5** Reduce the need for expanding the capacity of the wastewater collection and treatment system by requiring new development to incorporate water conservation measures such as plumbing fixtures that allow reduced water usage and by educating the public about water conservation techniques.
- Policy 9.4-6** Expand programs to replace and repair aging public and private sewer lines and stormwater collection systems to prevent water quality problems and comply with Federal and State requirements.

Mitigation Measures

No mitigation measures are required.

Impact

3.3-5 New development would result in increased demand for solid waste disposal at the County landfill. (*Less than Significant*)

The Altamont Landfill had a capacity of 67 million additional tons as of 2001, which is considered adequate to accommodate solid waste disposal needs through 2071.¹⁸ Daily disposal is limited to a maximum of 11,150 tons per day.¹⁹ Based on the 2003 County Integrated Waste Management Plan, residents served by the Castro Valley Sanitary District generated an average of 1.8 pounds of waste per person per day not including recyclables and plant debris.²⁰ At this rate, at build-out in 2025, the additional Castro Valley residents would generate an additional

¹⁸ *Alameda County Integrated Waste Management Plan*, p. III-18.

¹⁹ *Ibid*, p. II-40.

²⁰ *Ibid*, p. III-9

4.26 tons of solid waste per day, which is a fraction of the maximum tonnage the Altamont Landfill can accommodate. On an annual basis this would represent an increase of about 1,555 tons a year, or about .5 percent over the District's annual tonnage of 30,937 in 2000.²¹

The additional solid waste generated by development under the proposed Plan would have a minimal impact on the CVSD and County facilities that would be further reduced by anticipated increases in diversion and recycling. The following General Plan policies would support and enhance the effort the County and District's efforts in this regard.

Proposed General Plan Policies that Reduce the Impact

Policy 9.6-1 Support Castro Valley Sanitary District programs to promote reduction and recycling to divert increasingly larger proportions of the waste stream from the Alameda County landfills.

Action 9.6-1 Assist the Castro Valley Sanitary District in distributing information to Castro Valley residents and business-owners about opportunities for reducing the generation of solid waste as well as methods for safe disposal of hazardous materials.

Action 9.6-2 Adopt regulations to require incorporation of interior and exterior storage areas for recyclables into new development and alterations that increase the number of dwelling units or substantially expand non-residential floor area.

Mitigation Measures

No mitigation measures are required.

REFERENCES

Alameda County Waste Management Authority, *Alameda County Integrated Waste Management Plan, Countywide Element*, adopted February 26, 2003.

Alameda County Fire Department. Website <<http://www.acgov.org/fire/>>

Alameda County Local Agency Formation Commission, *Final Municipal Service Review, Vol. 1 – Public Safety Services Report*, and Appendix A, September, 2004.

Alameda County Sheriff's Department. <><http://www.alamedacountysheriff.org/>>

Association of Bay Area Governments (ABAG) Population Projections 2002

Bohman, Bob, Alameda County Deputy Fire Marshall. Personal interview, January 27, 2005.

Ed-Data, Education Data Partnership website < <http://www.ed-data.k12.ca.us/welcome.asp>>

²¹ Ibid., p. III-5

California Government Code, Sections 53080, 65995, 66000

Castro Valley Sanitary District Website <<http://www.cvsan.org/general.htm>>

City of Hayward Fairview Fire Protection District Agreement website:
<<http://www.hayward.ca.gov>>

East Bay Municipal Utilities District, *All About EBMUD*, 2002.

East Bay Municipal Utilities District, *Urban Water Management Plan 2005*, adopted November 22, 2005.

Rehnstrom, David J., East Bay Municipal Utilities District, Letter, August 10, 2004; Personal electronic communication. November 8, 2004.

U.S. Census 2000

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3.4 Transportation and Circulation

This section describes the current transportation network and summarizes the effects on the future transportation and circulation system associated with the General Plan Update. The impact analysis examines the roadway, intersection, transit, and bicycle/pedestrian components of the overall transportation system and recommends mitigation measures to address the identified significant impacts. Appendix C contains an analysis of Congestion Management Program roadways, as required by the Alameda County Congestion Management Agency.

ENVIRONMENTAL SETTING

PHYSICAL SETTING

Existing Roadway System

Castro Valley is located near the junction of Interstates 580 and 238, which provide regional access to the Bay Area. The local roadway system provides local circulation as well as regional access to surrounding communities, such as San Leandro and Hayward. The existing roadway system is shown in Figure 3.4-1.

Freeways

Interstate 580 (I-580) is a east-west freeway that spans from US 101 in the North Bay city of San Rafael eastward across the Richmond-San Rafael Bridge, south through East Bay cities, then turns eastward in Castro Valley to merge into Interstate 5 just south of Tracy in the Central Valley. In the project vicinity, I-580 is a ten-lane highway with posted speed limit of 65 mph. Direct access to Castro Valley is provided by ramps at Strobridge Avenue, Redwood Road, Center Street/Grove Way, and East Castro Valley Boulevard.

Interstate 238 (I-238) commences at Interstate 880 (I-880) to the west and serves as a connector to I-580 two miles to the east. It turns southward at I-580 and becomes a state route (Foothill Boulevard and Mission Boulevard) that runs through Hayward and Union City to terminate at Interstate 680 in Fremont. Interstate 238 has two-lanes on each direction and a posted speed limit of 65 mph.

Interstate 880 is a major north-south freeway that runs along the East Bay from Interstate 80 in Oakland south to terminate at Interstate 280 in San Jose. Near I-238, I-880 has four travel lanes and one high-occupancy-vehicle lane (HOV) on each direction. The HOV lanes are restricted between 5 am and 9 am and between 3 pm and 7 pm on weekdays. The posted speed limit on I-880 is 65 mph.

Local Roadways

In Castro Valley, the local roadway system is classified into the following roadway types:

- Arterials are the primary roads providing access from the freeways and provide connections from Castro Valley to the surrounding communities. Arterial roadways include Castro Valley Boulevard, Redwood Road, Lake Chabot Road, Grove Way, and Crow Canyon Road.

- Collectors provide access within and between neighborhoods. Collectors usually serve shorter trips and collect trips from residential streets and distribute them to arterials. Collectors include Center Street, Norbridge Avenue, Stanton Avenue, and Somerset Avenue.
- Residential Streets make up the remainder of the local roadways. They provide direct access to residential properties. Travel speeds and traffic volumes are generally low.

In addition to these local roadway classifications, Castro Valley Boulevard is designated as a part of the Metropolitan Transportation System (MTS) by the Metropolitan Transportation Commission (MTC). Other MTS designated roadways in the Castro Valley General Plan Area include: Center Street, Grove Way, Crow Canyon Road, and Redwood Boulevard; with the latter two being major north-south arterials.

Planned Improvements

The proposed General Plan includes the following major street improvements that are already planned or programmed for Castro Valley:

- Interstate 580 Castro Valley interchange improvement, which includes ramp reconfigurations for a full diamond interchange at Redwood Road and reconfiguration of the Center Street ramp to Grove Way, as well as removal of the westbound on-ramp from Castro Valley Road just west of Center Street.
- Castro Valley Boulevard Streetscape improvements, which include narrower lane widths, bike lanes, and wider sidewalks.

Traffic Operations

The capacity of a roadway or intersection – the maximum number of vehicles that can be handled in a given time period – is affected by the facility’s characteristics, such as number of lanes, lane widths, grades, and operating conditions. The Level of Service (LOS) concept is generally used to measure the amount of traffic that a roadway or intersection can accommodate, based on maneuverability, driver dissatisfaction, and delay. The LOS ranges from LOS A, or free-flow conditions, to LOS F, or congested conditions, and varies according to the type of roadway. These conditions are generally described in Table 3.4-1.

Table 3.4-1: Level of Service Descriptions

Level of Service	Description
A	Free Flow or Insignificant Delays: Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.
B	Stable Operation or Minimal Delays: The ability to maneuver within the traffic stream is only slightly restricted, and control delay at signalized intersections are not significant.
C	Stable Operation or Acceptable Delays: The ability to maneuver and change lanes is somewhat restricted, and average travel speeds may be about 50 percent of the free flow speed.
D	Approaching Unstable or Tolerable Delays: Small increases in flow may cause substantial increases in delay and decreases in travel speed.
E	Unstable Operation or Significant Delays: Significant delays may occur and average travel speeds may be 33 percent or less of the free flow speed.
F	Forced Flow or Excessive Delays: Congestion, high delays, and extensive queuing occur at critical signalized intersections with urban street flow at extremely low speeds.

Source: Highway Capacity Manual, Transportation Research Board, Washington D.C., 2000.

Freeways

Using freeway volume data provided by the California Department of Transportation (Caltrans), the existing traffic operations on the study freeway segment was calculated using Highway Capacity Manual (HCM) procedures. The LOS was determined using the volume-to-capacity ratio (V/C) – ratio of flow rate to capacity for the facility – given an estimated free-flow speed at 70 miles per hour for all the highway/freeway segments. The results are summarized in Table 3.4-2.

Table 3.4-2: Freeway Segment Operations - Existing Conditions

Location	Peak Hour	Lanes	Capacity	Eastbound			Westbound		
				Volume	V/C	LOS	Volume	V/C	LOS
I-580 – west of Stro-bridge Ave*	AM	4	8,000	6,537	0.82	D	6,891	0.86	D
	PM	4	8,000	6,639	0.83	D	7,815	0.98	E

4. * Freeway segment includes only mixed-flow lane travel

Source: Dowling Associates, Inc., 2006.

This segment of I-580 is operating at LOS E or better based on daily traffic volumes. This analysis does not, however, reflect the peak hour back-ups along I-580 due to the congestion on I-238. During the peak periods, traffic on I-580 through Castro Valley can experience delays due to congestion as westbound traffic towards I-880 backs up along I-238.

Roadways

Roadway LOS was determined by using peak hour directional volumes provided by Alameda County Public Works Agency. Levels of service for roadway links were estimated based on the 1995 Florida Department of Transportation (FDOT) methodology, which applies the Highway Capacity Manual arterials analysis for planning applications. Existing traffic operations on local

roadway segments are summarized in Table 3.4-3 and Table 3.4-4 for the AM and PM peak hours, respectively.

Under existing conditions, all roadway segments operate at LOS D or better during both AM and PM peak hours, except Center Street north of Fernwood Court, which operates at LOS F in both the northbound and southbound directions during both AM and PM peak hours. This condition is a result of Center Street’s limited capacity as a two-lane roadway at this location due to the narrow width of the bridge crossing San Lorenzo Creek. The high volumes are created by traffic from Hayward to I-580 using this route to avoid the congestion on Foothill Boulevard and I-238.

Table 3.4-3: Roadway Segments Operations - Existing Conditions - AM Peak Hour

Link Location	Facility			NB/EB*			SB/WB*		
	Type	Lanes	Capacity	Volume	VIC	LOS	Volume	VIC	LOS
Castro Valley Blvd – west of Lake Chabot Rd	Class 3	2	1,700	1,055	0.62	D	1,209	0.71	D
Castro Valley Blvd - east of Yeandle St	Class 3	2	1,700	702	0.41	D	1,100	0.65	D
Redwood Rd - south of Jamison Way	Class 2	3	2,640	701	0.27	D	890	0.34	D
Redwood Rd - north of Grove Way	Class 2	3	2,640	770	0.29	D	914	0.35	D
Center St - north of Fernwood Ct	Class 1b	1	840	1,143	1.36	F	1,111	1.32	F
Crow Canyon Rd - north of Manter Rd	Class 1a	2	1,890	1,798	0.95	D	1,634	0.86	C
Lake Chabot Rd - north of Congress Way	Class 2	2	1,740	723	0.42	D	701	0.40	D

5. *NB/EB – Northbound/Eastbound; SB/WB – Southbound/Westbound

Source: Dowling Associates, Inc., 2006.

Table 3.4-4: Roadway Segments Operations - Existing Conditions - PM Peak Hour

Link Location	Facility			NB/EB*			SB/WB*		
	Type	Lanes	Capacity	Volume	VIC	LOS	Volume	VIC	LOS
Castro Valley Blvd – west of Lake Chabot Rd	Class 3	2	1,700	1,458	0.86	D	1,153	0.68	D
Castro Valley Blvd - east of Yeandle St	Class 3	2	1,700	1,252	0.74	D	1,046	0.62	D
Redwood Rd - south of Jamison Way	Class 2	3	2,640	1,071	0.41	D	821	0.31	D
Redwood Rd - north of Grove Way	Class 2	3	2,640	1,050	0.40	D	1,146	0.43	D
Center St -	Class 1b	1	840	1,035	1.23	F	1,321	1.57	F

Table 3.4-4: Roadway Segments Operations - Existing Conditions - PM Peak Hour

Link Location	Facility			NB/EB*			SB/WB*		
	Type	Lanes	Capacity	Volume	VIC	LOS	Volume	VIC	LOS
north of Fernwood Ct									
Crow Canyon Rd - north of Manter Rd	Class 1a	2	1,890	1,551	0.82	C	1,291	0.68	B
Lake Chabot Rd - north of Congress Way	Class 2	2	1,740	719	0.41	D	735	0.42	D
6. *NB/EB – Northbound/Eastbound; SB/WB – Southbound/Westbound									
Source: Dowling Associates, Inc., 2006.									

Intersections

The intersection level of service was determined using the Highway Capacity Manual 2000 methodology. The levels of service thresholds were based on the average total delay per vehicle. Existing traffic operations at study intersections are summarized in Table 3.4-5.

Table 3.4-5: Existing Intersection Operations

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour		
		LOS	delay (sec)	LOS	delay (sec)	
1. Stanton-Norbridge Ave / Castro Valley Blvd*	Signal	E	70.7	F	99.5	
2. Lake Chabot Rd / Castro Valley Blvd*	Signal	C	26.3	C	26.6	
3. Redwood Rd / Castro Valley Blvd	Signal	D	42.6	D	51.4	
4. Redwood Rd / Norbridge Ave	Signal	C	21.6	C	21.7	
5. Center St / Grove Way*	Signal	D	48	D	51.7	
7. * Turning movement counts collected May 9, 2006.		8.	9.	10.	11.	12.
Source: Dowling Associates, Inc., 2006.						

Turning movement data were collected from two sources. Data for the intersections of Castro Valley Boulevard at Stanton-Norbridge Avenues and at Lake Chabot Road were collected on May 9, 2006. The remaining counts were assembled from the Redevelopment Strategic Transportation Plan traffic study conducted by DKS Associates in January, 2005.

With the exception of the intersection of Stanton-Norbridge Avenues and Castro Valley Boulevard, all study intersections currently operate at LOS D or better. The intersection of Stanton-Norbridge Avenues and Castro Valley Boulevard operates at LOS E and LOS F in the AM and PM peak hours, respectively. The critical movements, which experience the longer delays and queues, are the northbound right turns from Norbridge, southbound right turns from Stanton, and through traffic on Castro Valley Boulevard.

Transit System

Transit service in the Castro Valley area is provided by Bay Area Rapid Transit (BART) and Alameda-Contra Costa Transit District (AC Transit). The Castro Valley BART station of the Dublin-Pleasanton line is located north of I-580 near the Redwood Road and Norbridge Avenue intersection. This line provides direct service to Oakland, San Francisco and the San Francisco International Airport. Two other stations, Bayfair and Hayward, also serve the area. The Bayfair station is a transfer point for the Dublin-Pleasanton, Fremont and Richmond lines. Hayward station is on both the Fremont and Richmond lines.

The parking demand at the Castro Valley BART station has led to overflows onto nearby residential streets, which has led to in the imposition of short-term (2-hour) limits on-street parking. Traffic from patrons accessing BART has also led to increased traffic on Redwood Road and Norbridge Avenue.

Six AC Transit bus routes, NX 4, M, 80, 84, 87 and 91, travel through Castro Valley, and four additional routes serve the surrounding area. AC Transit buses serve the Castro Valley BART station and downtown as well as recreation activities at Don Castro Park (AC Transit route 80), and the Cull Canyon bike & hike trails (AC Transit route 87). The frequency of these routes is generally 30-minutes. The existing transit lines are shown in Figure 3.4-2.

Bicycle & Pedestrian Systems

The bicycle and pedestrian systems are comprised of trails, on-street bicycle facilities, and pedestrian sidewalks and walkways. Bicycle facilities are defined as the following three classes according to Chapter 1000 of the Caltrans Highway Design Manual:

- Class I – Provides a completely separated facility designed for the exclusive use of bicyclists and pedestrians with crossing points minimized.
- Class II – Provides a restricted right-of-way designated lane for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and crossflows by pedestrians and motorists permitted.
- Class III – Provides a right-of-way designated by signs or permanent markings and shared with pedestrians and motorists.

The existing bicycle network in Castro Valley is limited and disconnected at present as shown in Figure 3.4-3. Castro Valley currently has Class II bikeways along portions of Redwood Road, Norbridge Avenue, Grove Way, Crow Canyon Road and Cull Canyon Road.

An updated Alameda Countywide Bicycle Plan was adopted by the Alameda County Congestion Management Agency in October, 2006. The Plan proposes the addition of several bike paths in Castro Valley that would provide improved connectivity to the existing network. Class II and Class III bicycle facilities are proposed along Redwood Road, Castro Valley

Boulevard, Somerset Avenue, Lake Chabot Road, Heyer Avenue, Cull Canyon Road, and Grove Way.²²

Currently, the street environment is mostly auto-oriented with wide roadways, high levels of traffic and discontinuous sidewalks. In the downtown area along Castro Valley Boulevard, pedestrian facilities include sidewalks, marked crosswalks, and curb ramps. In some residential neighborhoods, the pedestrian facilities are limited in part by the topography. Problems include automobile traffic impinging (e.g. parking, driving, etc.) on pedestrian areas, including Somerset Avenue in the vicinity of Stanton Elementary School, Center Avenue in the vicinity of Creekside Middle School, Heyer Avenue and Redwood Road.

²² <http://www.accma.ca.gov/pages/HomeBicyclePlan.aspx>

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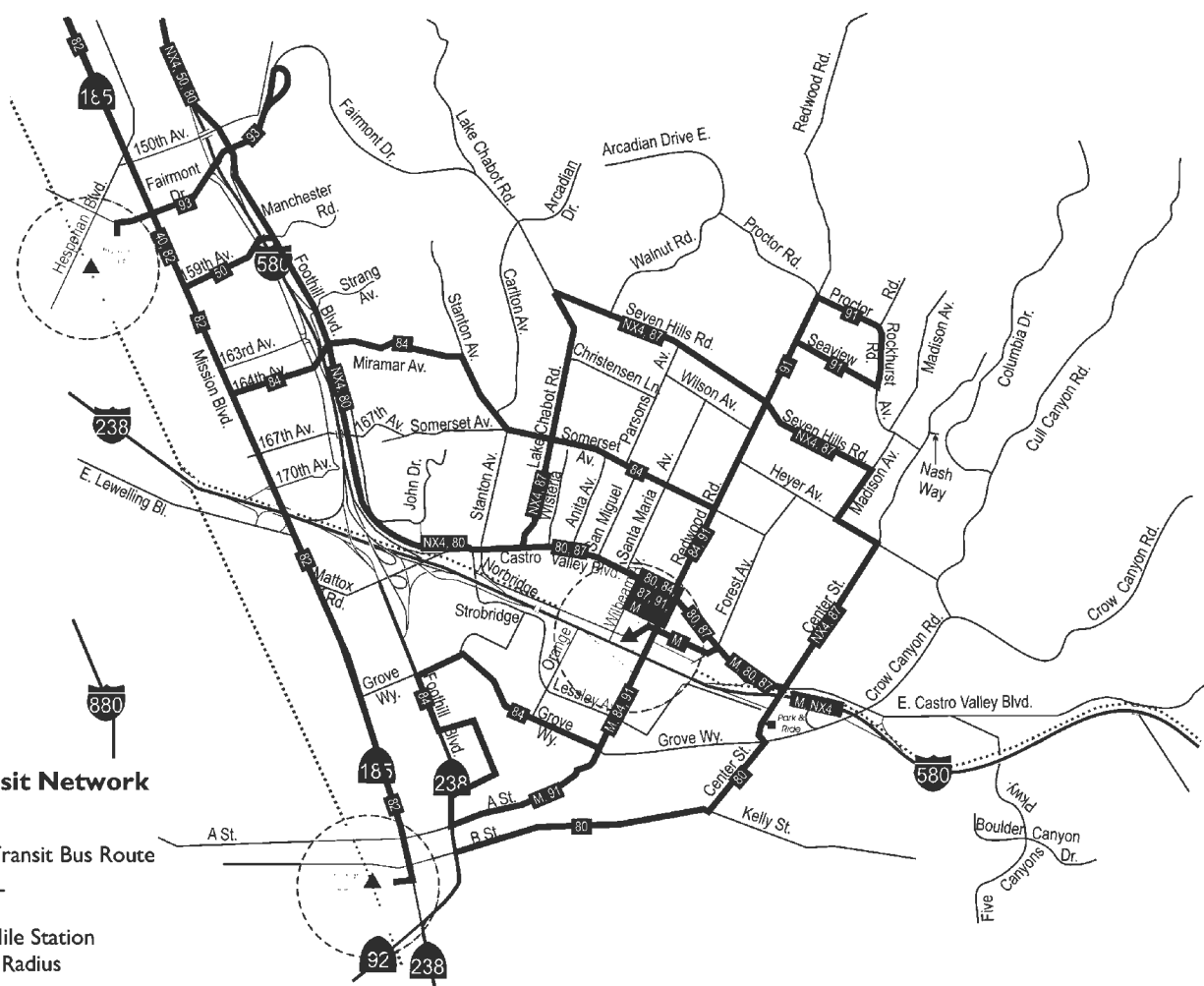


Figure 3.4-2
Existing Transit Network and Facilities

- 67 — AC Transit Bus Route
- BART
- - - 1/3 Mile Station Area Radius

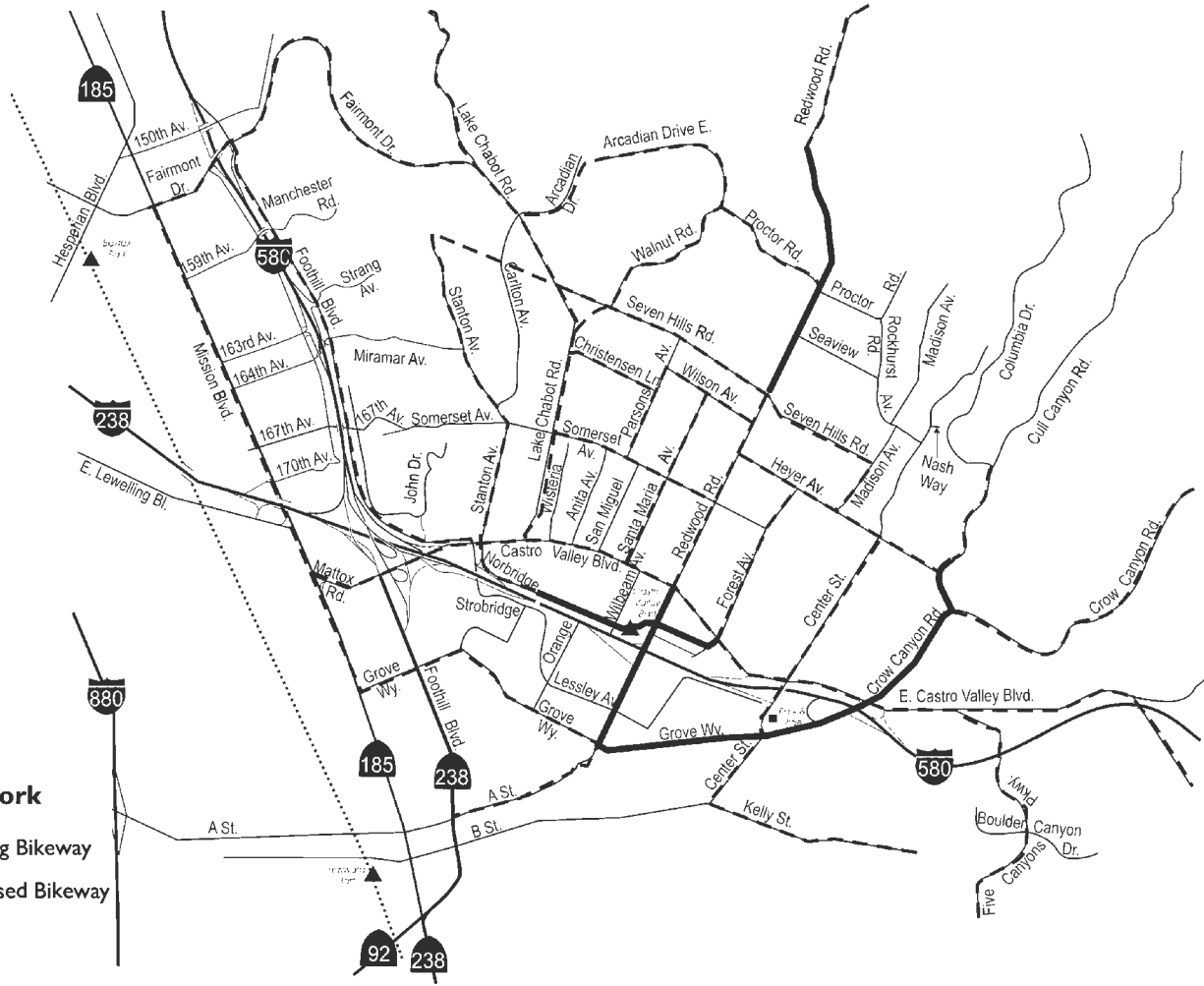


Figure 3.4-3
Bicycle Network

- Existing Bikeway
- - - Proposed Bikeway



The Alameda County Pedestrian Master Plan for Unincorporated Areas, adopted in July 2006, addresses pedestrian-related issues in Castro Valley. The plan identifies key pedestrian activity corridors in Castro Valley, including Castro Valley Boulevard, Redwood Road, Lake Chabot Road, Center Street, Seven Hill Road, Somerset Avenue, Heyer Avenue, and Anita Avenue.

REGULATORY SETTING

Existing transportation policies, laws, and regulations that would apply to the Castro Valley are summarized below. This information provides a context for the impact discussion related to the plan's consistency with applicable regulatory conditions.

State

Caltrans is responsible for planning, design, construction, and maintenance of all state highways. Interstate 580 is the only state highway that passes through Castro Valley. Caltrans' jurisdictional interest extends to roadway improvements at the interchange ramps serving the freeway. Any federally funded transportation improvements are subject to review by Caltrans staff and the California Transportation Commission.

The Guide for the Preparation of Traffic Impact Studies (Caltrans, 2001) provides consistent guidance for Caltrans staff who review local development and land use change proposals. It also advises local agencies of the information needed for Caltrans to analyze the traffic impacts to State highway facilities including freeway segments, on- or off-ramps, and signalized intersections.

Regional

The Metropolitan Transportation Commission (MTC) is the regional organization responsible for prioritizing transportation projects in a Regional Transportation Improvement Program (RTIP) for federal and state funding. The process is based on evaluating each project for need, feasibility, and adherence to federal transportation policies and the local Congestion Management Program (CMP). The CMP requires each jurisdiction to identify existing and future transportation facilities on the CMP network that would operate below an acceptable service level and provide mitigation where future growth would degrade that service level.

The Alameda County Congestion Management Agency (ACCMA) was established in 1991 by a joint-powers agreement between Alameda County and all its cities to serve as the county's transportation information and funding conduit. In addition to administering the short range CMP, ACCMA also develops and periodically updates a long range policy document called the Alameda Countywide Transportation Plan, which guides service and funding decisions over a 20-year period. In 2000, Alameda County voters passed Measure B, which continued a half-cent sales tax on gasoline to provide funding for regional transportation improvements. The Alameda County Transportation Improvement Authority (ACTIA) was established to administer this sales tax.

Local

The current 1985 Castro Valley General Plan calls on the County to “undertake necessary measures” when LOS C is exceeded on major roadways. The policy states that priority should be given to measures that will provide for more efficient use of existing facilities. To implement this policy the Plan proposes that the County undertake traffic studies and develop a transportation plan for Castro Valley that identifies areas of existing or potential congestion, defines alternatives for mitigating traffic/circulation problems, and estimates the cost and funding means to undertake the improvements. The establishment of ACCMA in 1991 and the passage of Measure B have provided a mechanism for conducting such studies and providing at least partial funding for necessary improvements.

IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

Adoption of the Castro Valley General Plan would have a significant transportation impact if one or more of the following conditions occurred:

- Development or capital improvements expected to result from the proposed Plan discourage or interfere with transit, bicycle or pedestrian circulation; or
- Level of service (LOS) exceeds the conditions expected under the No Project baseline by a full letter grade and:
 - LOS is below E for freeways;
 - LOS is below C for all other major streets and highways during non-peak travel periods and below D during peak travel periods.
- When LOS under the No Project baseline condition is already below standard for peak hours and:
 - Traffic generated by the proposed Plan causes a change in volume-to-capacity (V/C) ratio of three (3) percent or more (the 3 percent level has been found to be the threshold for which a perceived change in congestion is observed, and is equivalent to about one-half of the change from one level of service to the next); or
 - The proposed Plan causes the average delay per vehicle at an intersection to exceed that of the No Project condition by 5 seconds or more.

METHODOLOGY & ASSUMPTIONS

The transportation impact analysis focuses on potential LOS impacts on freeways, roadway segments, and intersections that would occur from increased travel demand associated with new land development under the proposed General Plan. As a mostly built out community, major roadway improvements are limited to the regional facilities. The analysis of ground transportation systems was performed using quantitative methods. For the transit, bicycle and pedestrian systems, the analysis was limited to a review of the General Plan policies and implementation measures associated with the Plan.

LOS Standards

For freeways, the 2005 Congestion Management Program, published by the Alameda County Congestion Management Agency, specifies that the level of service standard is LOS E.

For major streets and highways, the County may allow the level of service to exceed the established LOS standards under the following circumstances:

- Existing or projected congestion is primarily the result of traffic passing through Castro Valley and generated by development located outside the community;
- Mitigation of such existing or projected congestion requires regional or multi-jurisdiction measures, and is not the sole responsibility of the proposed development and/or of the County;
- Constraints on development as would be required to achieve or maintain these standards in Castro Valley would adversely impede achievement of this Plan's social economic, land use and community development, and environmental goals and policies;
- Mitigation of such existing or projected congestion would negatively affect transit, bicycle or pedestrian circulation or would conflict with General Plan goals for these alternative modes of circulation, for example, by increasing crossing distances, increasing pedestrian safety risk or restricting bicycle or transit access; and
- Traffic congestion is a result of an effort to promote transit ridership and/or access, including the development of dense residential housing or employment near transit or circulation changes to enhance access to BART and a demonstrated significant increase in transit ridership, carpooling, bicycling, and/or walking is achieved.

Calculating Traffic Volumes

The Alameda Countywide Travel Demand Model (Countywide Model) was updated to reflect the land uses of the existing general plan and the proposed general plan. Alterations were also made to the model to reflect changes in planned roadway improvements. Such changes include the addition of the I-580 interchange project at Redwood Road and Center Street and the removal of the SR 238 by-pass project through Hayward.

The Countywide Model was used to produce traffic volumes for a 2005 base year as well as the build-out (Year 2025) conditions of the proposed General Plan and the existing General Plan (No Project). The incremental growth between Year 2005 base year and Year 2025 build-out conditions was added to the existing traffic counts to establish the traffic volumes for Year 2025 conditions.

SUMMARY OF IMPACTS

Traffic congestion will increase on the transportation system with or without the proposed General Plan. The amount of planned growth is higher under the existing General Plan (No Project) condition than the proposed General Plan; therefore the analysis for the proposed Plan has identified no significant impacts on the roadway system.

Trip Generation

The number of trips generated in Castro Valley was determined from the updated Countywide Model travel demand model. Table 3.4-6 summarizes the approximate number of households, employment, total vehicle trips and total vehicle miles traveled under proposed General Plan and No Project conditions. The buildout condition assumes an increase in employed residents per household, which was applied to all households in Castro Valley (both existing and new ones). The table shows that with the proposed General Plan, daily vehicle trips generated would be negligibly lower (within two percent) than that of the No Project (1995 General Plan).

Table 3.4-6: Daily Vehicle Trips and Vehicle Miles of Travel For Buildout (2025) Conditions

Scenario	Households	Employment	Vehicle Trips		VMT ¹	
			AM	PM	AM	PM
Proposed General Plan	24,830	10,734	28,969	24,983	144,429	151,726
No Project	25,210	10,800	29,367	25,377	145,335	152,164

13. ¹ Includes external trips that start and/or end outside of Castro Valley but use local roadways in Castro Valley.

14. NOTE: These population and employment projections for the proposed General Plan are slightly higher than the projections listed in Chapter 2: Project Description, resulting in a slightly larger number of vehicle trips and a slightly more conservative analysis of traffic impacts.

Source: Dowling Associates, Inc. 2006.

Regional Performance

With the proposed General Plan, vehicle miles of travel would be negligibly lower than that of the No Project (1995 General Plan). The VMT on Castro Valley roadways with the proposed General Plan is within one percent of that for the No Project.

Roadways in the Congestion Management Program (CMP) network analysis were assessed against CMA’s 2025 projected conditions instead of the No Project conditions. This analysis is contained in Appendix C. With the General Plan Update, none of the CMP roadway segments are expected to result in significant impacts. The addition of project-generated traffic would result in a change in LOS for some roadway segments but they would operate within acceptable LOS E or better, or would cause less than a three percent increase in V/C compared to No Project conditions.

Roadway System Analysis Results

The results of the freeway, roadway, and intersection analysis were used to identify potential future roadway deficiencies. Table 3.4-7 shows the results for freeway segment operations, Table 3.4-8 for local roadway segment operations, and Table 3.4-9 for intersection operations. Locations that will exceed LOS standards under project conditions are in **bold** font and are discussed in the “Impacts and Mitigation Measures” section

Table 3.4-7: Freeway Segment Operations

Freeway Segment	Dir	Existing Conditions				No Project (2025)				Project (2025)			
		AM		PM		AM		PM		AM		PM	
		LOS	VIC	LOS	VIC	LOS	VIC	LOS	VIC	LOS	VIC	LOS	VIC
I-580 – west of Strobridge Ave	EB	D	0.82	D	0.83	D	0.82	D	0.86	D	0.82	D	0.85
	WB	D	0.86	E	0.98	E	0.93	E	0.98	E	0.92	E	0.98

Source: Dowling Associates, Inc., 2006.

Table 3.4-8: Roadway Segment Operations

Link Location	Northbound/Eastbound						Southbound/Westbound					
	Existing		No Project		Project		Existing		No Project		Project	
	Vol	LOS	Vol	LOS	Vol	LOS	Vol	LOS	Vol	LOS	Vol	LOS
<i>AM Peak Hour</i>												
Castro Valley Blvd – west of Lake Chabot Rd	1,055	D	1,170	D	1,148	D	1,209	D	1,720	F	1,701	F
Castro Valley Blvd – east of Yeandle St	702	D	587	D	583	D	1,100	D	1,948	F	1,844	F
Redwood Rd south of Jamison Way	701	D	789	D	756	D	890	D	990	D	951	D
Redwood Rd – north of Grove Way	770	D	1,490	D	1,470	D	914	D	1,711	D	1,895	D
Center St – north of Fernwood Ct	1,143	F	1,143	F	1,153	F	1,111	F	1,251	F	1,274	F
Crow Canyon Rd – north of Manter Rd	1,798	D	1,821	D	1,820	D	1,634	C	1,849	D	1,855	D
Lake Chabot Rd – north of Congress Way	723	D	836	D	830	D	701	D	868	D	858	D
<i>PM Peak Hour</i>												
Castro Valley Blvd – west of Lake Chabot Rd	1,458	D	1,957	F	1,936	F	1,153	D	1,514	D	1,499	D
Castro Valley Blvd – east of Yeandle St	1,252	D	1,431	D	1,380	D	1,046	D	976	D	963	D
Redwood Rd – south of Jamison Way	1,071	D	1,111	D	1,096	D	821	D	1,016	D	995	D
Redwood Rd – north of Grove	1,050	D	1,746	D	1,603	D	1,146	D	2,229	E	2,222	E

Table 3.4-8: Roadway Segment Operations

Link Location	Northbound/Eastbound						Southbound/Westbound					
	Existing		No Project		Project		Existing		No Project		Project	
	Vol	LOS	Vol	LOS	Vol	LOS	Vol	LOS	Vol	LOS	Vol	LOS
Way												
Center St – north of Fernwood Ct	1,035	F	1,181	F	1,175	F	1,321	F	1,330	F	1,341	F
Crow Canyon Rd – north of Manter Rd	1,551	C	1,789	D	1,765	D	1,291	B	1,370	B	1,379	B
Lake Chabot Rd – north of Congress Way	719	D	946	D	931	D	735	D	958	D	944	D

Source: Dowling Associates, Inc., 2006.

Table 3.4-9: Intersection Operations

Intersection	Existing Conditions				Year 2025 No Project				Year 2025 With Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	delay (sec)	LOS	delay (sec)	LOS	delay (sec)	LOS	delay (sec)	LOS	delay (sec)	LOS	delay (sec)
Stanton-Norbridge Ave/Castro Valley Blvd	E	70.7	F	99.5	F	123.5	F	188	F	118	F	184.2
Lake Chabot Rd / Castro Valley Blvd	C	26.3	C	26.6	C	31.4	D	35.4	C	31	C	34.3
Redwood Rd / Castro Valley Blvd	D	42.6	D	51.4	D	44.4	E	57.3	D	43.3	E	55.6
Redwood Rd / Norbridge Ave	C	21.6	C	21.7	C	21.2	C	29.1	C	22.7	C	29.1
Center St / Grove Way	D	48	D	51.7	D	49.3	E	58.7	D	49.3	E	58.7

Source: Dowling Associates, Inc., 2006.

IMPACTS AND MITIGATION MEASURES

The potentially significant impacts of the Castro Valley General Plan are summarized and compared to both existing conditions and the No Project (2025) condition, which represents build-out under the 1985 General Plan. As discussed above, significance is determined by comparing the probable buildout under the proposed General Plan to the No Project conditions.

Impact

3.4-1 Implementation of the proposed General Plan would increase traffic along I-580. (*Less than Significant*)

As shown in Table 3.4-7, due in large part to additional development in eastern Alameda County, San Joaquin County, and other areas east of Castro Valley, traffic will increase along I-580. By 2025, the volume-to-capacity ratio would be at or worse than the existing levels at build-out under either the existing General Plan or the proposed Plan. However, the freeway will operate within acceptable standard at LOS E or better; hence the project impact is considered less than significant.

Proposed General Plan Policies that Reduce the Impact

Policy 6.1-1 Promote a comprehensive system of transportation facilities that includes: streets and highways within the community and providing access to other urban areas; transit facilities; a continuous network of pedestrian sidewalks and bicycle routes; and transportation management programs and measures to encourage the efficient use of these facilities and services.

Policy 6.2-1 Work with the Alameda County Congestion Management Agency, the Alameda County Transportation Authority, the Metropolitan Transportation Commission, Caltrans, and surrounding jurisdictions to develop and implement regional solutions to local traffic problems created by growth outside of Castro Valley.

Action 6.2-2 Cooperate with Caltrans to implement the Redwood Road Interchange Project to install on-ramps and off-ramps to I-580 at Redwood Road. Complete the Redwood Road Interchange Project that constructs new on- and off-ramps onto I-580 at Redwood Road and revises the on- and off-ramps along east Castro Valley Boulevard and Grove Way.

Mitigation Measures

No mitigation measures are required.

Impact

3.4-2 Implementation of the proposed General Plan would increase traffic along local roadways. (*Less than Significant*)

As shown in Table 3.4-8, the following roadways would operate at substandard levels with or without the proposed project:

- (a) Castro Valley Boulevard west of Lake Chabot Road would operate at LOS F with or without the proposed project in the westbound direction during the AM peak hour and in the eastbound direction during the PM peak hour. Because the proposed project would result in improved V/C ratios when compared to the No Project, the impact is considered less than significant.
- (b) Castro Valley Boulevard east of Yeandle Street would operate at LOS F with or without the proposed project in the westbound direction during the AM peak hour. Because

the proposed project would result in an improved V/C ratio when compared to the No Project, the impact is considered less than significant.

- (c) Redwood Road north of Grove Way would operate at LOS E with or without the proposed project in the southbound direction during the PM peak hour. Because the proposed project would not result in an increase of V/C ratio by three percent or more, the impact is considered less than significant.
- (d) Center Street north of Fernwood Court would operate at LOS F with or without the proposed project as well as under existing conditions on both directions during AM and PM peak hours. The proposed project would not cause the V/C ratio to increase by more than three percent when compared to the No Project; hence the impact is considered a less than significant impact.

Proposed General Plan Policies that Reduce the Impact

Although this impact of the proposed Plan is not considered significant when compared to the No Project alternative, the proposed Plan includes policies that will serve to further reduce the impacts on regional roadways and segments that serve regional traffic, such as Castro Valley Boulevard, Redwood Road, and Center Street. Implementation of the General Plan would also encourage increased ridership on BART and AC Transit bus lines due to the increased densities in the downtown area and along transit corridors.

Policy 6.1-5 A LOS of E or better shall be applied to Congestion Management Program (CMP) Roadways: Castro Valley Boulevard, Center Street, Grove Way, Crow Canyon Road, and Redwood Road. A LOS of D or better shall be applied to all non-CMP roadways during peak travel periods. The County may allow individual locations to fall below the standards in the following instances:

- The construction of improvements would be physically infeasible or prohibitively expensive
- Improvements would significantly and adversely affect adjacent properties or the environment, or have a significant adverse effect on the character of Castro Valley
- Lower standards result from significant physical improvements to transit, bicycle or pedestrian facilities.
- Existing or projected congestion is primarily the result of traffic passing through Castro Valley and generated by development located outside the community;
- Mitigation of such existing or projected congestion requires regional or multi-jurisdiction measures, and is not the sole responsibility of the proposed development and/or of the County; and
- Constraints on development as would be required to achieve or maintain these standards in Castro Valley would adversely impede achievement of this Plan's social economic, land use and community development, and environmental goals and policies.

- Mitigation of such existing or projected vehicular congestion would negatively affect transit, bicycle or pedestrian circulation, or would conflict with General Plan goals for these alternative modes of circulation, for example by increasing crossing distances, increasing pedestrian safety risk, or restricting bicycle or transit access.
- Traffic congestion is a result of an effort to promote transit ridership and/or access, including the development of dense residential housing or employment near transit or circulation changes to enhance access to BART.
- On a temporary basis when the improvements necessary to preserve the LOS standard are in the process of construction or have been designed and funded but not yet constructed.

Action 6.1-4 Establish an infill opportunity zone including all areas within one-third of a mile of the Castro Valley BART station that the General Plan designates for mixed use development or development at a density of 24 or more units per acre as provided for in State law. Develop an alternative multimodal composite level of service standard or approved list of flexible level of service mitigation options that would apply within the infill opportunity zone.

Action 6.1-5 Work with the Eden Medical Center, the Castro Valley Unified School District, and other major Castro Valley employers as well as small businesses to promote adoption of staggered working hours, compressed workweek, home-based telecommuting, car-pooling, use of transit, and bicycling to employment centers within Castro Valley to reduce traffic congestion especially during peak hours.

Action 6.2-1 Conduct a study of the two-way conversion of Norbridge at its western end and reconfiguration of the intersections of Norbridge-Stanton and Strobridge at Castro Valley Boulevard to improve vehicular and bicycles access to the Castro Valley BART station as well as to address the congestion at these intersections along Castro Valley Boulevard. Design the improvements and seek funding as a top priority for Castro Valley.

Action 6.2-3 Review traffic control plans and construction plans in order to maintain local access and minimize impacts on local circulation during the construction of freeway improvements.

Action 6.2-5 Review design alternatives and address the potential impacts of the State Route 238 improvements through the City of Hayward on the local circulation in Castro Valley, particularly: along Castro Valley Boulevard at Foothill Boulevard, through traffic on Center Street, and traffic on Center and Grove Way.

Action 6.2-6 Work with Caltrans and transit providers to identify measures to promote fuller utilization of the Park and Ride lot on Center Street. Work with Caltrans and AC Transit to relocate the Center Street lot once the I-580/Redwood Road interchange project is completed and the eastbound off-ramp is relocated from Center Street to Grove Way.

- Action 6.2-7** Widen the dam crossing on Heyer Avenue west of Cull Canyon Road to add turning lanes and bike lanes in addition to pedestrian improvements.
- Policy 6.3-1** Protect resident, pedestrian, and bicyclist safety by calming traffic, focusing on residential streets where traffic frequently exceeds the speed limit.
- Action 6.3-1** Continue to implement the County's neighborhood Traffic Calming Program to enhance safety and livability on residential streets. Identify and install the most effective and appropriate technique for each individual location. review the requirements for the percentage of residents that must sign petitions for traffic calming devices, to ensure that they do not overly discourage residents from initiating traffic calming projects.
- Action 6.3-2** Consider adopting an ordinance that would prohibit trucks heavier than 3 tons from operating on designated residential streets, except for emergency, maintenance, and transit vehicles.

Mitigation Measures

No mitigation measures would be required.

Impact

3.4-3 Implementation of the proposed General Plan would increase traffic at the study intersections. (*Less than Significant*)

As shown in Table 3.4-9, the following intersections would operate at substandard levels with or without implementation of the proposed Plan:

- (a) Stanton/Norbridge Avenues and Castro Valley Boulevard would operate at LOS E with an average delay of 70.7 seconds per vehicle and LOS F with an average delay of 99.5 seconds per vehicle during the AM and PM peak hours, respectively under the existing conditions. It would operate at LOS F with and without the Proposed Project during both peak hours. Vehicles would experience an increase in average delay by 52.8 seconds and 47.3 seconds during no project and with project conditions, respectively, in the AM peak hour and an increase by 88.5 seconds and 84.7 seconds during the PM peak hour. As the substandard operation is a pre-existing condition and the impact of the Proposed Project is less than that of the No Project condition, the project impact is considered less than significant.
- (b) Redwood Road and Castro Valley Boulevard would operate at LOS E with an average delay of 57.3 seconds and 55.6 seconds during the PM peak hour under No Project and Proposed Project conditions, respectively. Compared to existing conditions, vehicles would experience an increase in average delay of 5.9 seconds under No Project condition and 4.2 seconds under Proposed Project condition. As the impact of the Proposed Project is less than that under No Project condition, it is considered less than significant.

- (c) Center Street and Grove Way would operate at LOS E with an average delay of 58.7 seconds during the PM peak hour under both No Project and Proposed Project conditions. Compared to existing conditions, vehicles would experience an increase in average delay of 7 seconds. As the impact of the Proposed Project is the same as that under No Project condition, it is considered less than significant.

Proposed General Plan Policies that Reduce the Impact

The following proposed policies would further reduce potential impacts to roadway segment operations by improving intersection operations.

Policy 6.2-2 Identify intersection improvements that can help facilitate vehicular circulation without negative impacts on pedestrian, bicycle, or circulation. Design improvements for these locations and seek funding for construction.

Action 6.2-4 Continue to monitor actual levels of service at major intersections to ascertain whether levels of service decrease to a level lower than projected. Present findings to the County Board of Supervisors.

Mitigation Measures

No mitigation measures would be required.

Impact

Implementation of the proposed General Plan Development could discourage or interfere with transit, bicycle or pedestrian circulation. (*Less than Significant*)

Implementation of the General Plan would support implementation of the Alameda Countywide Bicycle Plan and also provide for local and regional bicycle facilities within Castro Valley. Precise alignments within Castro Valley still need to be determined, but Plan policies specifically call for an interconnected network of bicycle routes within Castro Valley. The intent of the Transportation/Circulation Element is to provide linkages to the Countywide Plan. The Plan also calls for new development to include bicycle-parking facilities to further encourage bicycle use.

Improvements to existing facilities and new development proposed by the General Plan are to be accompanied by attractive, well-connected facilities which will be conducive to increased walking and biking. A quality environment for pedestrian travel is essential for the mobility of children and many seniors. Most transit and many passenger car trips are linked to walking trips on one end or the other, so adequate pedestrian facilities are in the interest of the whole community. The proposed General Plan supports creation of these facilities in Downtown and around other high activity centers.

Proposed General Plan Policies that Reduce the Impact

The following General Plan policies will help reduce impacts on transit, bicycle and pedestrian circulation:

- Policy 6.1-2** Assess the performance of the community's transportation system by measuring how well pedestrians, bicycles, and transit vehicles as well as automobiles are able to move within and through the community.
- Policy 6.1-3** Make land use decisions that promote a multi-modal transportation system and reduce reliance on the private automobile. Allow higher density development near transit and mixed use.
- Policy 6.1-4** Balance the needs of all four circulation modes – automobile, transit, bike and pedestrian when making decisions about transportation improvements and allocation of public right of way.
- Policy 6.4-1** Promote transit use and reduce reliance on the private automobile in order to reduce congestion, improve air quality, and improve the quality of life in Castro Valley.
- Policy 6.4-2** Work with public transportation agencies to ensure that public transit facilities and services are be designed and operated to respond to special travel needs and problems of minorities, the elderly, young, handicapped and economically disadvantaged, and of other persons who do not have or are unable to use private automobiles.
- Policy 6.4-3** Work with BART and AC Transit to promote the provision of safe, efficient, and convenient access to primary destinations of persons with special transportation needs, including major shopping areas, health care and social service centers, schools and colleges, and recreation areas and facilities.
- Policy 6.4-4** Improve transit stops and stations to create a more pleasant, comfortable, and safe waiting environment for transit users.
- Action 6.1-1** When reviewing development proposals, consider the needs of all travel modes: automobile, pedestrian, transit and bicycle. In conditions of approval or environmental impact mitigations that are required, balance the needs of all the different modes. Consider impacts on levels of service for pedestrians, bicyclists and transit in addition to impacts on vehicular circulation. Consider needs for bicycle parking, sidewalk requirements, and landscaping.
- Action 6.1-2** As more sophisticated and reliable methodologies are developed for evaluating transportation impacts on pedestrians, transit, and cyclists:
- Revise the County standard method of traffic impact analysis to include such measures; and
 - Reduce the significance threshold for impacts to auto levels of service on streets where the County wants to prioritize pedestrians, transit, and bicycles.

- Action 6.1-3** Use the revised level of service policy for vehicular circulation in the environmental review of all projects.
- Action 6.4-1** Advocate for and support regional, state, and national policies and programs that will encourage increased transit use by subsidizing transit fares, operations, and capital improvements and providing a more stable operating budget for transit agencies.
- Action 6.4-2** Work with AC Transit, BART, the Castro Valley and Hayward School Districts, other major employers, colleges, and Alameda County cities to establish a transit pass program for employees of major Alameda County businesses and students at Cal State East Bay, the Peralta Colleges and other large institutions.
- Action 6.4-3** Review existing bus routes in Castro Valley for opportunities to improve service to higher density residential areas as well as employment centers.
- Action 6.4-4** Coordinate with BART and AC Transit to facilitate safe, efficient, and convenient access to transit stations and bus stops. See General Plan Figure 6-1 for areas of recommended implementation.
- Action 6.4-5** Seek Safe Routes to Transit and other funding to improve pedestrian access to bus stops along regional bus routes.
- Action 6.4-6** Develop wayfinding signage program from Castro Valley Boulevard to the Castro Valley BART station for pedestrians and vehicles.
- Action 6.4-7** Improve sidewalks and add landscaping and lighting on Wilbeam Avenue to improve the comfort and safety of pedestrian access to the BART station.
- Action 6.4-8** Require participation in the existing Commuter Check program as a standard condition of approval for new large scale non-residential projects.
- Action 6.4-9** Encourage establishment of Transportation Demand Management (TDM) programs at new or expanded large-scale employment sites and shopping centers, including provision of preferential carpool parking and car share programs, bicycle lockers, BART shuttles, and other transit connection services.
- Action 6.4-10** Work with homeowners' associations and neighborhood groups in Palomares Hills, Five Canyons, and other large residential developments to establish shuttle services to BART or initiate other feasible measures to promote alternatives to driving alone such as car-pooling and shuttle services to major employment centers, commercial areas and transit areas.
- Action 6.4-11** As part of development project review, encourage preferential parking measures for carpool and vanpool vehicles, guaranteed ride home services and other incentives to employees choosing transportation modes other than driving.

- Action 6.4-12** Consider requiring large employers with over 200 employees, or large scale new development over 100,000 square feet, to contribute to the cost of providing shuttle service from central employment locations to BART.
- Action 6.4-13** Establish a shuttle service for employees and patients between Eden Medical Center and the Castro Valley BART station.
- Action 6.4-14** Identify locations for additional bus shelters, particularly at major stops and transfer points, and work with transit agencies or private businesses to have them installed.
- Action 6.4-15** Promote regional and local ridesharing organizations and advocate legislation to maintain and expand incentives for transit use such as tax deductions and tax credits.
- Policy 6.5-1** Provide a system of bikeways in Castro Valley that is coordinated with existing and planned facilities in adjoining communities as well as other transportation routes and facilities serving the community.
- Policy 6.5-2** Provide convenient and safe bicycle access to community and regional activity centers, employment, shopping, and recreation areas, and to public service centers and facilities.
- Policy 6.5-3** Implement the regional bicycle corridors identified in the Alameda County Bicycle Master Plan for unincorporated areas and the Countywide Bicycle Plan.
- Policy 6.5-4** Balance on-street parking needs with bicycle safety considerations.
- Policy 6.5-5** Encourage transit operators to provide adequate bicycle accommodations.
- Action 6.5-1** Review and, as required, revise County road standards to accommodate bicycle routes consistent with this Plan and the Countywide Bicycle Plan.
- Action 6.5-2** Implement bike lanes on Castro Valley Boulevard as part of the Redevelopment Strategic Plan.
- Action 6.5-3** Amend the County Zoning Ordinance to include regulations regarding the provision of bicycle and pedestrian facilities such as weather protected bicycle parking, direct and safe access for pedestrians and bicyclists to adjacent bicycle routes and transit stations, secure short-term parking for bicycles, and to the extent feasible encourage provision of showers and lockers for employees at worksites.
- Action 6.5-4** Identify a funding source and schedule for implementing those high priority projects in the Countywide Bicycle Plan that would improve conditions for cyclists within the community including widening curb lanes and/or construct shoulders as necessary to provide bike lanes on:

- Lake Chabot Road;
- Redwood Road; and
- Crow Canyon Road.

Action 6.5-5 Establish guidelines to be used when reviewing development proposals to ensure that site plans and facilities are designed to encourage bicycle use and do not create unsafe conditions for bicyclists.

Action 6.5-6 Use the Alameda Countywide Bicycle Plan’s design guidelines and best practices or comparable criteria when designing the streetscape improvements.

Policy 6.6-1 Implement the Alameda County Pedestrian Master Plan for Unincorporated Areas policies and actions for enhanced pedestrian environments in Castro Valley. See General Plan Tables 6-1 and 6-2.

Policy 6.6-2 Develop Safe Routes to Schools programs to encourage walking and bicycling to schools as well as manage vehicular circulation to provide a safe environment for school children.

Policy 6.6-3 Provide safe and attractive pedestrian facilities along arterials and collectors particularly those that are part of the Pedestrian Activity Corridors, as identified in the Alameda County Pedestrian Master for Unincorporated Areas.

Policy 6.6-4 Pedestrian facilities and amenities shall be routinely maintained as funding and priorities allow. The highest priority shall be given to facilities that are used to provide access to transit, public facilities, senior facilities, and schools.

Policy 6.6-5 Improve street design and traffic enforcement to increase pedestrian safety.

Policy 6.6-6 Design new development and redevelopment projects to facilitate pedestrian access and address any impacts to the pedestrian safety, access, and circulation.

Policy 6.6-7 When dealing with competing demands for sidewalk space, pedestrian needs shall have the highest priority.

Action 6.6-1 Install curbs, gutters, sidewalks, pedestrian crossing improvements and/or landscaping improvements along Somerset Avenue, Stanton Avenue, Miramar Avenue, Seven Hills Road, upper Lake Chabot Road, Heyer Avenue, and Center Street.

Action 6.6-2 Provide streetscape improvements to add pedestrian refuges in medians, bulb-outs, or other features that improve pedestrian comfort and safety along Castro Valley Boulevard west of Strobridge and Grove Way.

Action 6.6-3 Consider installing pedestrian crosswalk “runway” lights in the pavement at heavily-used and dangerous pedestrian crossings. Suggested locations are designated on General Plan Figure 6-1.

- Action 6.6-4** Continue to require installation of sidewalks and physically-demarcated walkways in new development.
- Action 6.6-5** Study the feasibility of developing a pedestrian and bicycle path linking the new Castro Valley Library to surrounding commercial and residential areas along Castro Valley Creek.
- Policy 6.7-1** Balance the needs of automobiles with downtown pedestrian comfort and scale.
- Policy 6.7-2** Pedestrian amenities should be provided to create a more comfortable and pleasant walking environment in downtown.
- Action 6.7-1** Implement the Castro Valley Boulevard Streetscape Plan to widen sidewalks, provide bike lanes, landscaping, and other improvements to upgrade the Boulevard's appearance and make it more attractive to pedestrians.
- Action 6.7-2** Ensure that traffic signals are set to provide sufficient time for pedestrians and those with impaired mobility to safely cross the Boulevard.

Impact

3.4-5 Implementation of the proposed General Plan would make parking less convenient in the Central Business District, which could have an impact on traffic conditions. (*Less Than Significant*)

The proposed Plan would allow more residential and commercial development in the Central Business District (CBD) which may result in more drivers competing for the same number of parking spaces at local businesses and the BART station. This would be a significant impact if the Plan made parking capacity so inadequate that it affected traffic conditions or caused an increase in parking in residential neighborhoods. However, the Plan includes policies to ensure there is enough parking at BART to avoid overflow onto residential streets, proposes to consolidate parking in the CBD to make it more efficient, and includes a variety of policies and actions that are intended to promote pedestrian activity within the CBD. Furthermore, based on case law, making parking inconvenient is not, in and of itself, an environmental impact under CEQA. Consequently, this impact is less than significant.

Proposed General Plan Policies that Reduce the Impact

The following General Plan policies will mitigate parking impacts in the CBD by adding parking and promoting pedestrian activity:

- Policy 4.7-10** Add public parking in strategic locations within the downtown, where there is a demonstrated parking shortage, and where it can be located within walking distance of pedestrian-oriented shopping. Consolidate and redesign existing privately owned parking areas to improve circulation and access and augment parking.

- Action 4.7-15** Renovate and add new facilities to create an integrated attractive pedestrian-oriented retail area which serves as the heart of Castro Valley. Create a Village Green, add new retail space; consolidate parking behind structures; and build a new parking structure.
- Action 4.7-16** Evaluate the feasibility of designating and developing the BART Station area as a Transit Village under State law. Work with BART to achieve joint development on the BART station site that includes:
- High Density Residential North of Norbridge;
 - Office or Retail on the Redwood Road frontage; and
 - Parking structure, buses, and BART circulation south of Norbridge.
- Ensure that the parking garage is well-designed, well-lit, and safe; and that it is not out of scale with Castro Valley. Preserve existing parking capacity.
- Policy 6.3-2** Prevent encroachment of non-residential parking in existing residential neighborhoods, particularly due to overflow parking for the Castro Valley BART station.

Mitigation Measures

No mitigation measures are required.

REFERENCES

Alameda County Congestion Management Agency, Countywide Bicycle Plan, October, 2006 <<http://www.accma.ca.gov/pages/HomeBicyclePlan.aspx>>

Alameda County Public Works Agency, *Neighborhood Traffic Calming Program*, Adopted by the Alameda County Board of Supervisors July 2001-June 2004

Alameda County Public Works Agency, *Pedestrian Master Plan for Unincorporated Areas*, July, 2006 <<http://www.acgov.org/pwa/>>

Caltrans, *The Guide for the Preparation of Traffic Impact Studies*, 2001

Wallace Roberts & Todd/Solomon E.T.C., et. al., *Castro Valley Redevelopment Strategic Plan*, prepared for the Alameda County Community Development Agency, December 2005

DKS Associates, Castro Valley Redevelopment Plan Traffic Analysis Technical Memorandum prepared for the Alameda County Redevelopment Agency, January 25, 2005.

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3.5 Biological Resources

This section addresses the potential direct and indirect effects of implementing the proposed General Plan on biological resources in the Planning Area. The setting descriptions and impact analyses presented in this section are based on a review of existing documentation and biological databases, and correspondence with resource agencies. The information serving as the basis for this evaluation included: California Natural Diversity Database (CNDDDB) and U.S. Fish and Wildlife Service (FWS) species list databases for the Hayward, Oakland East, Las Trampas Ridge, Dublin, Niles, Diablo, Newark, Redwood Point, and San Leandro 7.5 minute USGS quadrangle maps; the Alameda County Specific Plan for Areas of Environmental Significance (1977); and the Draft Alameda County General Plan – Resources, Open Space, and Agriculture (ROSA) element, (April, 2006).

ENVIRONMENTAL SETTING

PHYSICAL SETTING

The western and central portions of the General Plan Area are largely developed. Native habitats include primarily oak/riparian woodland occurring along creeks. Other undeveloped areas support isolated patches of non-native dominant habitat. The eastern portions of the Planning Area support primarily native habitats. Much of the undeveloped area in the eastern part of the Planning Area is in permanent open space approved as part of the Palomares Hills and Five Canyons developments.

Vegetation

The Castro Valley project area supports both native and non-native vegetation types. Native vegetation types include oak riparian woodland and coastal scrub. Non-native vegetation types include non-native annual grassland and a non-native dominant habitat type. For this project, non-native dominant habitat is defined as areas supporting ruderal vegetation (non-native plant species favoring disturbed sites), ornamental or naturalized non-native trees, such as Monterey pine and eucalyptus, and shrubs, such as cotoneaster. Non-native vegetation supports few native species.

Wildlife Corridors

As shown in Figure 3.5-1, oak riparian woodland, coastal scrub and grassland vegetation serve as the primary wildlife movement corridors for common and special-status wildlife species within the Castro Valley project area. Non-native dominant habitats also may serve as movement corridors when continuous with habitats supporting native vegetation.

Creeks

There are several perennial and seasonal creeks within the Castro Valley Planning Area (Figure 3.10-1). The main creeks include Crow Creek, Cull Creek, San Lorenzo Creek, Castro Valley Creek and Chabot Creek. Several unnamed tributaries convey flows to these creeks; however, the figure shows only a few of them. Portions of the creek segments are natural, concrete-lined,

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Figure 3.5-1
Biological Resources



earthen, and/or within a closed conduit (culvert). Crow Creek and San Lorenzo Creek are deeply incised creeks with well-developed riparian areas. These two creeks serve as a primary migration route through the eastern half of the Planning Area for both aquatic and terrestrial species.²³ San Lorenzo Creek, Chabot Creek and Castro Valley Creek have been improved over the years to convey adequate flows. Several ponds are present at Cull Creek, San Lorenzo and Chabot Creek as a result of dams. Natural ponds may occur within some of the creeks, such as the unnamed tributaries to San Lorenzo Creek.

Sensitive Habitat Areas

All areas supporting native vegetation or providing suitable habitat for special-status species are considered sensitive habitat areas, including oak riparian woodland and naturalized native trees that provide potential nesting habitat for bird species. Sensitive habitat areas also include streams and wetlands with the potential to be considered jurisdictional by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act or by California Department of Fish and Game under California Fish and Game Code Sections 1600-1607.

Special Status Species

California Natural Diversity Database (CNDDDB) (CDFG 2006), California Native Plant Society Electronic Inventory (CNPS 2006), and U. S. Fish and Wildlife Service website species list search (USFWS 2006) were used to develop a list of known and potential occurrences of special-status species within and near the Castro Valley Planning Area. Based on the CNDDDB (CDFG 2006), yellow warbler, a state species of special concern, is the only known special-status species occurrence within the Castro Valley Planning Area (refer to Figure 3.5-1). Steelhead is the only known special-status fish species to have been observed within the project area (San Lorenzo Creek, Castro Valley Creek, and Crow Creek) in the last ten years (Leidy et al., 2003). The Castro Valley Planning Area could, however, potentially support the following special-status plant and animal species: Steelhead, California tiger salamander, California red-legged frog, Alameda whipsnake, Western pond turtle, California horned lizard, Yellow warbler, Sharp-shinned hawk, Burrowing owl, white-tailed kite, Bats (*Myotis* spp., Pacific western big-eared bat, and greater western mastiff bat), alkali milk vetch, Santa Cruz tarplant, big-scale balsamroot, fragrant fritillary, Diablo helianthella, Robust monardella, Lum's micro-blind harvestman, Great blue heron, Cooper's hawk, and red-tailed hawk. In addition, ornamental landscaping may include large trees, shrubs and other vegetation that provide potential nesting habitat for raptors known to nest in urbanized areas, such as Cooper's hawk, and other special-status bird species. Refer to Table 3.5-1 for a list of special-status species with associated vegetation type found within the Castro Valley planning area.

²³ I-580/Castro Valley Interchange Improvement Project, Initial Study/Environmental Assessment, U.S. Department of Transportation, Federal Highway Administration, and State of California Department of Transportation, Mitigated Negative Declaration, June 2006.

Central Coast Steelhead ESU (*Onchorhynchus mykiss*) – This evolutionarily significant unit (ESU) is a federally-listed Threatened Species, and a CDFG Species of Special Concern. Steelhead is an anadromous form of rainbow trout, which returns to freshwater streams to spawn. In February 1994, the National Marine Fisheries Service (NMFS) identified and established 15 ESUs of west coast steelhead populations. The central California coastal steelhead ESU was listed as threatened under the FESA of 1973 on October 17, 1997, and consists of steelhead populations from the Russian River south to and including Soquel Creek in Santa Cruz County. This ESU occupies river basins from the Russian River to Soquel Creek, Santa Cruz County (inclusive) and the drainages of San Francisco and San Pablo Bays; excluded is the Sacramento-San Joaquin River Basin of the Central Valley of California.²⁴ Steelhead trout has known occurrences in San Lorenzo Creek, Castro Valley Creek, and Crow Creek and its tributaries.

Western Pond Turtle (*Actinemys marmorata*) – Western pond turtle is a CDFG Species of Special Concern. Historically, the western pond turtle had a relatively continuous distribution in most Pacific slope drainages from Klickitat County, Washington along the Columbia River to Arroyo Santo Domingo, northern Baja California, Mexico. They can be found in ponds, lakes and slow moving streams. While usually found near water, western pond turtles require adjacent grasslands on south-facing hills for nesting sites. There are no CNDDDB recorded occurrences of this species in Castro Valley; however, creeks such as Cull Creek, San Lorenzo Creek, Crow, Creek, and Chabot Creek and their associated ponds and tributaries provide suitable habitat for the western pond turtle. The CNDDDB contains records of western pond turtle north of Castro Valley, in Crow Creek, within lands outside the County's voter-approved urban growth boundary (UGB).

California red-legged Frog (*Rana aurora draytonii*) - This frog is federally Threatened, and a California Species of Special Concern. The California red-legged frog occurs in lowlands, foothills, woodlands, and grasslands, usually near marshes, pools, perennial creeks or other permanent water sources, generally with emergent and sub-emergent vegetation. Red-legged frogs disperse widely following the onset of the rainy season and are known to travel up to 1.5 miles in search of breeding habitat. The aquatic and riparian areas found within Castro Valley provide potential habitat for the California red-legged frog. The CNDDDB contains records of California red-legged frog occurrences north of the Planning Area, within upstream reaches of Crow Creek, around Anthony Chabot Regional Park and to the east in Palomares and San Lorenzo Creeks, also outside the Planning Area.²⁵

California Tiger Salamander (*Ambystoma Californians*) – California tiger salamander is a federally Threatened species, and a California Species of Special Concern. The California tiger salamander is most commonly found in annual grassland habitat, but also occurs in the grassy understory of valley-foothill hardwood habitats, and uncommonly along stream courses in valley-foothill riparian habitats. During breeding migrations, individuals are sometimes found under surface objects such as rocks and logs. Postmetamorphic juveniles retreat to small-mammal burrows after spending a few hours or days in mud cracks near water or tunnels

²⁴ National Marine Fisheries Service. <http://www.nwfsc.noaa.gov>. August 13, 2006.

²⁵ Draft EIR, Eden Area General Plan, September 15, 2006

constructed in soft soil. Aquatic larvae seek cover in turbid water, clumps of vegetation, and other submerged debris. There are no known occurrences of this species within Castro Valley; however, suitable perennial aquatic habitat is found throughout the Planning Area. The CNDDDB contains records of California tiger salamander approximately five miles northeast of Planning Area near Danville and I-680.

California horned lizard (*Phrynosoma coronatum frontale*), - California horned lizard is a federal and California Species of Special Concern. This species is most commonly found in grasslands, woodlands, and shrublands. This species occurs in Northern California, north of Los Angeles County. There are no known occurrences of this species within Castro Valley; however, grassland and woodland areas in the northern and eastern parts of the Planning Area and contiguous to undeveloped lands outside the Urban Growth Boundary could provide potential habitat for the California horned lizard.

Alameda whipsnake (*Masticophis lateralis euryxanthus*) - Alameda whipsnake is a federal and state threatened species that occurs within coastal scrub, woodland, and grassland habitat in the East Bay area. Home ranges are typically centered on areas of scrub habitats with open to partially open canopy, on slopes that face south, southeast, east, and southwest. Rock outcrops are important for protection from predators and as habitat for prey species. Much of the coastal scrub in the Castro Valley is limited in size, and/or surrounded by various types of development and would be considered marginal habitat for Alameda whipsnake. Unit 3 of the whipsnake's designated critical habitat area lies generally east of Palomares Creek and outside the Planning Area, about a half mile east of the Five Canyons development as shown in Figure 3.5-1. (U.S. Fish and Wildlife Service (USFWS) Designation of Critical Habitat for the Alameda Whipsnake, Final Rule (Federal Register, October 2, 2006) Previous occurrences (2004) were noted in the CNDDDB database in the southeastern portion of the Planning Area, and north of the Planning Area, within Measure D lands.

Yellow warbler (*Dendroica petechia brewsteri*) - The yellow warbler is a California Species of Special Concern. Yellow warblers breed from April through August in riparian woodlands from low-lands to foothill canyons. They are most often found in willow thickets, but they also nest in montane chaparral and in open mixed conifer habitats with a brushy understory. Historically, yellow warblers were common summer residents in suitable habitat throughout most of the state, with the exception of high mountain ranges and deserts. However, yellow warbler populations have declined due to loss of riparian habitat to agriculture and urbanization and nest parasitism by brown-headed cowbirds. These birds have recorded CNDDDB occurrences along Cull Creek near the edge of the Planning Area.

Burrowing owl (*Athene cunicularia*) - This species, which is a federal and California Species of Special Concern, is a California resident that prefers open annual or perennial grasslands and disturbed sites with existing burrows, elevated perches, large areas of bare ground or low vegetation, and few visual obstructions. Ground squirrel colonies often provide a source of burrows and are typically located near water and areas with large numbers of prey species for burrowing owls, primarily insects. Breeding takes place between March and August, with a peak in April and May. The CNDDDB records did not report any occurrences in the Planning

Area but the Burrowing owl has been found in a small portion in the western part of the Eden Planning Area near the San Lorenzo Canal.²⁶ This species' ability to adapt to changing environments and ability to disperse into new areas such as the vacant lots does not exclude it from potentially occurring in Planning Area.

Sharp-shinned hawk (*Accipiter striatus*) - Sharp-shinned hawk is a California species of special concern. This species is widely distributed in North America, particularly in northern forests and mountains. During the winter they move farther south and are wide-spread across southern North America. These small hawks nest in woodland habitats but also occur in a variety of other habitats, including suburban areas during the winter. There are no known occurrences of this species within or near the Castro Valley Planning area but the characteristics of riparian corridors in the Planning Area are such that the sharp-shinned hawk could nest in riparian corridors throughout the Planning Area.

White-tailed kite (*Elanus leucurus*) - White-tailed kite is a fully protected species under the California Fish and Game Code. White-tailed kites nest and winter throughout the lowlands of California. Nests are constructed in trees, often in riparian corridors, and a few white-tailed kites are known to nest in the Project Area. There are no known occurrences of this species in Castro Valley but suitable foraging habitat is present in annual grassland habitat in the eastern portion of the Planning Area. Suitable nesting habitat is present in riparian areas.

Cooper's hawk (*Accipiter cooperii*) – Cooper's hawk is a California species of special concern. This raptor nests in a wide variety of habitat types, from riparian woodlands and digger pine-oak woodlands through mixed conifer forests. Cooper's hawk is found throughout California except high altitudes in the Sierra Nevada. There are no known occurrences of this species in Castro Valley but suitable foraging habitat is present in annual grassland habitat in the eastern portion of the Planning Area. Suitable nesting habitat is present in riparian areas.

Western Mastiff Bat (*Eumops perotis*) - The western mastiff bat is a California species of special concern. This species is the largest bat species in the United States. Western mastiff bats roost in deep crevices on high rocky cliffs and occasionally in buildings. Alameda County is near the northern edge of this species' range (Williams, 1986). The western mastiff bat typically forages high in the air over a wide area. Roosting colonies are expected to have a moderate potential for occurrence in mature trees and snags, and large-diameter sycamores, oaks, and other trees.

Pacific western Townsend big-eared bat (*Plecotus townsendii townsendii*) – This bat is a federal and California species of special concern. This bat species occurs in a variety of habitats such as oak and conifer woodlands and arid grasslands. The potential for this bat species within the planning area is low as the availability of preferred roosting habitat (caves, tunnels, mines, and buildings) is a limiting factor for this species in the project area. There are no known occurrences of this species within Castro Valley.

²⁶ Draft EIR, Eden Area General Plan, September 15, 2006

Myotis bats (*Myotis ssp*) - Mature sycamore and cottonwood trees, and exposed rock outcrops on the perimeter of the developed parts of Castro Valley provide suitable nesting sites for Yuma myotis bat (*Myotis yumanensis*), small-footed myotis bat (*Myotis ciliolabrum*), long-eared myotis bat (*Myotis evotis*), and fringed myotis bat (*Myotis thysanodes*). These bat species are federal species of concern.

Yuma myotis bat occurs throughout California and is especially common along wooded canyon bottoms. This species roosts in caves and old buildings in large colonies. Yuma myotis bats feed on flying insects, especially small moths, beetles, and midges.

Small-footed myotis bat occurs in a wide variety of habitats, but primarily in relatively arid wooded and brushy uplands near water. This species generally roosts in caves, buildings, and bridges. Like most bat species, the small-footed myotis mates in the fall. The small-footed myotis bat forages among trees and over water for a variety of small flying insects, including moths, flies, and beetles. Long-eared myotis bat is widespread throughout California, except in the Central Valley and southern desert region.

Long-eared myotis bat can be found in buildings, crevices, and snags and behind tree bark. Individual bats tend to roost singly or in small groups.

Fringed myotis bat occurs throughout California, most frequently in coastal and montane forests and near mountain meadows. It forages over open areas, taking a broad variety of flying insects, especially insects and moths.

Fairmont (Lum's) micro-blind harvestman (*Microcina lumi*) – This arthropod is listed in the CNDDB database as G1S1, where G1 indicates that this species is extremely endangered throughout its worldwide range, and S1 indicates that it is a California endemic, therefore its range within the state is the same as its worldwide range. However, this species is not a federal or state listed special status species. The known distribution of the Fairmont micro-blind harvestman is limited to two serpentine outcrops on Fairmont Ridge, near the City of San Leandro and northwest of the Planning Area.²⁷

Santa Cruz tarplant (*Holocarpha macradenia*) – This plant is a State endangered, federally-threatened, CNPS 1B species. Found in Coastal California from Marin to San Luis Obispo Counties in coastal prairie and annual grasslands, on sandy, clay soils, 30–900 feet. The CNDDB and the California Native Plant Society Inventory report occurrences of the plant southwest of Castro Valley on the southerly side of San Lorenzo Creek in the Eden Planning Area.²⁸ There are no reported occurrences of the plant in the Castro Valley Planning Area.

Alkali milk-vetch (*Astragalus tener var. tener*) - Alkali milk-vetch is a CNPS 1B plant. They occur in valley and foothill grasslands, often associated with vernal pools and they are often associated with alkaline and serpentine soils. The plants blooming period is from March

²⁷ EPA website: <http://www.epa.gov/fedrgstr/EPA-SPECIES>. August 21, 2006.

²⁸ California Native Plant Society (CNPS). 2007. Inventory of Rare and Endangered Plants (online edition, v7-07a). California Native Plant Society. Sacramento, CA. Accessed on Mon, Feb. 26, 2007 from <http://www.cnps.org/inventory>

through June. This species is threatened by habitat destruction, especially agricultural conversion. The CNDDDB and the California Native Plant Society Inventory report occurrences of the plant in the southeastern part of Cherryland in the Eden Planning Area. There are no report occurrences of the plant in the Castro Valley Planning Area.²⁹

Big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*) – This plant is a CNPS 1B species. Big-scale balsamroot is found in cismontane woodland and valley and foothill grassland and sometimes in serpentine soils. The CNDDDB reports occurrences of the plant in the Fairmont Ridge area west of Castro Valley.

Fragrant fritillary (*Fritillaria liliacea*) – This plant is a CNPS 1B species. The white, pendent flowers are striped green and are often fragrant. It blooms from February through April. Fragrant fritillary grows in coastal scrub, valley and foothill grassland and often disturbed areas, and in serpentine and non-serpentine soils. This species is threatened by urbanization, grazing, and fire suppression. The CNDDDB reports occurrences of the plant in the Fairmont Ridge area west of Castro Valley.

Diablo helianthella (*Helianthella castanea*) This large-flowered sunflower is a federal species of concern and is listed on CNPS List 1B. This species grows in broad-leafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, and in valley and foothill grassland. This species is threatened by urbanization, grazing, and fire suppression. The CNDDDB reports occurrences of the plant north of Castro Valley within Measure D lands.

Robust monardella (*Monardella villosa* ssp. *Globosa*) – This plant is a CNPS 1B species. This species is found in broad-leafed upland forest (openings), chaparral (openings), cismontane woodland, coastal scrub, and in valley and foothill grasslands. The CNDDDB reports occurrences of the plant northeast of the Five Canyons area Castro Valley within Measure D lands.

Critical Habitat

The General Plan Area is located less than 0.5 miles from Unit 3 of U.S. Fish and Wildlife Service (USFWS) Proposed Critical Habitat for the Alameda Whipsnake (Federal Register, 2005) as shown in Figure 3.5-1.³⁰ Primary habitat elements for this species includes core areas of coastal scrub and other shrublands with mixed canopy cover usually located on east, southeast, south, or southwest facing slopes: continuous oak woodland and/or annual grassland communities; and rocky outcrops, small mammal burrows or other areas that provide protection from predators and environmental conditions.

REGULATORY SETTING

Policies and regulations that are pertinent to the proposed General Plan are identified below. The proposed plan is considered to be consistent and compatible with these policies and regulations unless stated in the impact analysis that follows.

²⁹ California Native Plant Society (CNPS), op. cit.

³⁰ USFWS. Proposed Designation of Critical Habitat for the Alameda Whipsnake in Contra Costa, Alameda, San Joaquin, and Santa Clara Counties, California: Proposed Rule. Federal Register Vol. 70 No. 200, October 18, 2005.

Federal

Endangered Species Act (FESA)

The FESA of 1973 provides legal protection for plant and animal species in danger of extinction, and requires definitions of critical habitat and development of recovery plans for specific species. Section 3 of the FESA defines an endangered species as “any species, including subspecies, in danger of extinction throughout all or a significant portion of its range”; and a threatened species as any species “likely to become endangered within the foreseeable future throughout all or a significant portion of its range.” “Federally listed” or “listed” indicates that a species has been designated as endangered or threatened through publication of a final rule in the Federal Register. Endangered and threatened species listed under Section 4 of the FESA receive the full protection of the FESA. Proposed endangered and threatened species are those for which a proposed regulation, but not a final rule, has been published in the Federal Register. Proposed species are granted limited protection, while candidate species and species of special concern are afforded no protection under the FESA.

Projects that would result in adverse effects on federally-listed threatened or endangered species are required to consult with, and mitigate through consultation with, the USFWS. The objective of consultation is to determine whether the project would adversely affect a protected species or its designated critical habitat, and to identify mitigation measures to avoid or reduce impacts to the species. This consultation can be pursuant to either Sections 7 or 10 of the FESA. Section 7 consultation is required when a federal agency is involved in project approval, funding, or

Table 3.5-1: Listed Species and Associated Vegetation	
<i>Federal or State Listed Species</i>	<i>Associated Vegetation Types</i>
Santa Cruz tarplant	Coastal scrub
Steelhead	Creeks
California tiger salamander	Ponds and adjacent grasslands
California red-legged frog	Creeks, ponds and adjacent grasslands
Alameda whipsnake	Coastal scrub and adjacent grasslands and woodlands
Federal or State Species of Concern	Associated Vegetation Types
Western pond turtle	Creeks and ponds
California horned lizard	Coastal scrub, grassland, riparian woodland
Yellow warbler	Oak Riparian woodland
Burrowing owl	Grassland
Sharp-shinned hawk, white-tailed kite	Oak Riparian woodland
Bats (Myotis spp., Pacific western big-eared bat, and greater western mastiff bat)	Oak Riparian woodland
Other Special-status Species	Associated Vegetation Types
Great blue heron	Oak Riparian woodland
Cooper’s hawk and other raptors	Oak Riparian woodland, non-native dominant habitat
Fairmont (Lum’s) micro-blind harvestman	Grassland
Diablo helianthella	Coastal scrub, oak riparian woodland
Fragrant Fritillary	Coastal scrub
Alkali milk vetch	Grassland
Robust monardella	Coastal scrub, grassland
Big-scale balsamroot	Grassland

permitting. Section 10 consultation is required when no federal agencies are involved with the project.

Section 7 of the FESA requires federal agencies to make a finding on the potential to jeopardize the continued existence of any listed species potentially impacted by all federal actions, including the approval of a public or private action, such as the issuance of a permit pursuant to Section 10 of the Rivers and Harbors Act and Section 404 of the CWA.

Section 9 of the FESA prohibits the take of any member of an endangered species. Take is defined by the FESA as “...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” USFWS has further defined the terms harass and harm. Harass is defined as follows:

“...an intentional or negligent act or omission that creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns that include, but are not limited to, breeding, feeding, or sheltering.”

Harm is defined to include the following:

“...significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering.”

Section 10(a) of the FESA permits the incidental take of listed species if the take is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.

Migratory Bird Treaty Act (MBTA) of 1918

The MBTA regulates or prohibits the taking, killing, possession of, or harm of migratory bird species listed in Title 50 Code of Federal Regulations (CFR) Section 10.13. It is an international treaty for the conservation and management of bird species that migrate through more than one country, and is enforced in the United States by the USFWS. Hunting of specific migratory game birds is permitted under the regulations listed in Title 50 CFR 20. The MBTA was amended in 1972 to include protection for migratory birds of prey (raptors). Six families of raptors occurring in North America were included in the amendment:

- Accipitridae (kites, hawks, and eagles);
- Cathartidae (New World vultures);
- Falconidae (falcons and caracaras);
- Pandionidae (ospreys);
- Strigidae (typical owls); and
- Tytonidae (barn owls).

All species and subspecies of the families listed above are protected under the amendment.

Federal Clean Water Act

Section 404

The objective of the Federal Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. Section 404 of the CWA regulates activities that result in discharge of dredged or fill material into waters of the United States. The United States Army Corps of Engineers (Corps) is responsible for permitting certain types of activities affecting wetlands and "other waters of the United States." Under Section 404 of the CWA, the Corps has the authority to regulate activity that could discharge fill or dredge material or otherwise adversely modify wetlands or other waters of the U.S. The Corps implements the federal policy embodied in Executive Order 11990, which, when implemented, is intended to result in no net loss of wetland values or acres.

Section 401

The State Water Resources Control Board (SWRCB) has authority over wetlands through Section 401 of the CWA, as well as the Porter-Cologne Act, California Code of Regulations Section 3831(k), and California Wetlands Conservation Policy.

The CWA requires that an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) first obtain a CWA, Section 401 water quality certification from the State Water Resources Control Board (SWRCB) or one of the nine Regional Water Quality Control Boards (RWQCB). A request for certification or waiver is submitted to the State or regional board at the same time that an application is filed with the Corps. The water board has 60 days to review the application and act on it. Because no Corps permit is valid under the CWA unless "certified" by the State, these boards may effectively veto or add conditions to any Corps permit.

State

California Endangered Species Act (CESA)

The California Department of Fish and Game (CDFG) administer a number of laws and programs designed to protect fish and wildlife resources. Principal among these is the California Endangered Species Act of 1984 (Fish and Game Code Section 2050), which regulates the listing and take of State-endangered and State-threatened species. CESA declares that deserving species will be given protection by the State because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. CESA established that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats.

Species listed under CESA cannot be taken without adequate mitigation and compensation. The definition of take under CESA is the same as described above for the federal ESA. However, based on findings of the California Attorney General's Office, take under CESA does not prohibit indirect harm by way of habitat modification. Typically, the CDFG implements endangered species protection and take determinations by entering into management agreements (Section 2081 Management Agreements) with project applicants.

CDFG maintains lists of Species of Special Concern, based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Species of Special Concern do not receive protection under the CESA or any section of the California Fish and Game Code, and do not necessarily meet CEQA Guidelines Section 15380 criteria as rare, threatened, endangered, or of other public concern. Like federal Species of Concern, the determination of significance for California Species of Special Concern must be made on a case-by-case basis. Designation of Species of Special Concern is intended by CDFG to be used as a management tool for consideration in future land use decisions.

Fish and Game Code - Sections 3503, 3503.5, 3513

Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Fish and Game Code Section 3503.5 protects all birds-of-prey (raptors) and their eggs and nests. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the Migratory Bird Treaty Act. These regulations could require that elements of the proposed project (particularly vegetation removal or construction near nest trees) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by CDFG and/or USFWS.

Fish and Game Code B Sections 3511, 4700, 5050, and 5515

Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code designate certain species as “fully protected.” Fully protected species, or parts thereof, may not be taken or possessed at any time, and no provision of the California Fish and Game Code or any other law may be construed to authorize the issuance of permits or licenses to take any fully protected species. No such permits or licenses heretofore issued may have any force or effect for any such purpose, except that the California Fish and Game Commission may authorize the collecting of such species for necessary scientific research. Legally imported and fully protected species or parts thereof may be possessed under a permit issued by CDFG.

CDFG Lake and Streambed Alteration Agreements

Under sections 1600-1616 of the California Fish and Game Code, the CDFG regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFG’s jurisdiction are defined in the code as the . . . “bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit...” (Section 1601).

- This broad definition gives the CDFG great flexibility in deciding what constitutes a river, stream, or lake.

In practice, the CDFG usually marks its jurisdictional limit at the top of the stream or bank, or at the outer edge of the riparian vegetation, whichever is wider.

Native Plant Protection Act

The California Native Plant Protection Act (California Fish and Game Code Sec. 1900-1913) prohibits the taking, possession, or sale within the State of any rare, threatened or endangered plants as defined by CDFG. This protection would apply to any plants with a State designation of rare, threatened, or endangered. Project impacts to these species would be considered “significant” if the species are known to occur within the area of disturbance associated with construction of the project, or “potentially significant” if the species has a high potential to occur within the area of disturbance.

California Native Plant Society

The California Native Plant Society (CNPS) maintains a list of special-status plant species based on collected scientific information. Designation of these species by the CNPS has no legal status or protection under federal or state endangered species legislation. CNPS designations are defined as follows: List 1A (plants presumed extinct); List 1B (plants rare, threatened, or endangered in California and elsewhere); List 2 (plants rare, threatened, or endangered in California, but more numerous elsewhere); List 3 (plants about which more information is needed – a review list); and List 4 (plants of limited distribution – a watch list). In general, plants appearing on CNPS List 1A, 1B, or 2 meet the criteria of Section 15380 of the CEQA Guidelines; thus, substantial adverse effects to these species would be considered significant in this EIR.

California Environmental Quality Act

Although threatened and endangered species are protected by specific federal and State statutes, CEQA Guidelines Section 15380(b) provides that a species not federally- or State-listed may still be considered rare if it can be shown to meet certain specified criteria. These criteria have been modeled after definitions in the FESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals. Section 15380(b) requires public agencies to undertake reviews to determine if projects would result in significant effects on species not listed by either the USFWS or CDFG (i.e., candidate species). Thus, CEQA provides an agency with the ability to protect a species from a project’s potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

Regional and Local Plans

Specific Plan for Areas of Environmental Significance (1977)

This is a countywide specific plan that creates a Site Development Review process for designated areas of environmental significance. These areas are located throughout the county in riparian areas, where a watercourse forms the environmental focal point, and along the scenic route corridors identified in the County’s Scenic Routes Element. The specific plan provides development guidelines but does not regulate permitted land uses. The County’s proposed Resources, Open Space, and Agriculture (ROSA) elements, described below, are intended to replace this plan.

Alameda County General Plan - Resources, Open Space, and Agriculture (ROSA) elements

The County is updating its Resource Conservation, Open Space, and Agriculture (ROSA) elements. The Castro Valley General Plan must be consistent with the countwide ROSA elements, which will also incorporate the policies for lands outside the Planning Area that voters adopted in 2000 with the approval of Measure D. The updated ROSA will replace the existing resource, open space, and agriculture elements as well as the 1966 Scenic Route Element, the 1973 Open Space Element, and the 1977 Specific Plan for Areas of Environmental Significance.

The existing Alameda County Resources Conservation Element (1994) requires the County to locate uses or development that would seriously impact or jeopardize biological resources away from areas with significant biological resource value. The RCE requires the County to prioritize the preservation of lands that should be left substantially undeveloped including riparian habitats, habitat of rare or endangered species, and wetlands supporting concentrations of waterfowl. The RCE also requires the County to encourage the protection and restoration of sensitive and rare habitat types, including native grasslands, riparian woodlands, and oak woodlands, and to designate Sensitive Habitat Areas (SHAs) as a way to protect unique resources from development. The RCE also proposed that all SHAs were to be reclassified to Resource Management district.

When adopted, the ROSA elements would substantially contribute to the preservation and protection of biological resources throughout the County's unincorporated area. The proposed Castro Valley General Plan incorporates a number of the policies from the ROSA Resource Conservation and Open Space elements that would, in the meantime, only be applicable to this Planning Area. These policies deal with issues such as stream protection, stormwater drainage, standards for creekside development, protection of biological resources, habitat protection and restoration, tree protection, open space preservation, and open space dedication requirements.

County Tree Ordinance, Chapter 12.11

This County ordinance provides protection for any tree of least ten feet high and having a trunk that is at least two inches in diameter dbh within a County Right-of-Way. An encroachment permit is required for the planting, maintenance or removal of any such tree. All maintenance work on trees located in the county right-of-way (including but not limited to trimming or pruning) shall be in compliance with the International Society of Arboriculture Tree Pruning Guidelines and the Standard Practices for Tree Care Operations: Tree, Shrub, and other Woody Plant Maintenance (ANSIA300) or as otherwise provided by the Public Works Department in the encroachment permit.

IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

Impacts of buildout of the proposed General Plan would be significant if they would:

- Result in 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 Game or United States Fish and Wildlife Service;

- Result in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS;
- Result in a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- 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 the impediment of use of native wildlife nursery sites;
- Cause fish or wildlife population to drop below self-sustaining levels, a substantial reduction in the habitat of a fish or wildlife species, the threatened elimination of a plant or animal community, or the reduction in number or restriction of range of an endangered, rare or threatened species;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provision of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

METHODOLOGY & ASSUMPTIONS

The analysis of biological resource impacts is based on review of available biological records, the General Plan project description, and data sources pertaining Castro Valley. Biological records and data sources include the California Natural Diversity Database, the CNPS Electronic Inventory, USFWS County and USGS Quadrangle lists, Castro Valley's Draft General Plan, and applicable regulations and guidelines.

Potential impacts of the implementation of the General Plan on plant and animal life were identified by first comparing the proposed development areas with habitat and species maps and information. For those areas where habitat may be lost, habitat requirements of the various species were compared to the habitat available on and adjacent to the planning area. A determination was then made as to what effect the loss of that potential habitat would have on the species.

SUMMARY OF IMPACTS

Development in Castro Valley could result in the removal of vegetation, which could adversely affect special status and common wildlife and plant species. The following species are considered in the impact analysis: Santa Cruz tarplant, Steelhead, California tiger salamander, California red-legged frog, Alameda whipsnake, Western pond turtle, California horned lizard, Yellow warbler, Sharp-shinned hawk, white-tailed kite, Bats (*Myotis* spp., Pacific western big-eared bat, and greater western mastiff bat), alkali milk vetch, Santa Cruz tarplant, big-scale balsamroot, fragrant fritillary, Diablo helianthella, Robust monardella, Fairmont (Lum's) micro-blind harvestman, Great blue heron, Cooper's hawk and other raptors, and nesting

birds. Large portions of the undeveloped areas where such vegetation occurs are proposed for designation as open space or are included in the proposed Biological Resources Overlay Zone. (See Figure 2.3-1: General Plan Diagram, Figure 3.5-1: Biological Resources, and Figure 3.5-2: Biological Resources Overlay Zone.

Development near jurisdictional hydrologic features such as creeks and associated riparian habitats, as defined by federal (Section 404 of the Clean Water Act) and state (Section 1601 and 1603 Fish and Game Code) authorities, can result in significant impacts. Any proposed development occurring within jurisdictional waters or riparian habitat would require procuring appropriate permits from state and/or federal authorities. Such permits stipulate protection measures such as Best Management Practices, re-vegetation, and setback zones to insure the protection of waters and riparian habitat and would reduce impacts to less than significant levels.

The removal of trees could conflict with the County's Tree Ordinance, Chapter 12.11, which provides protection for any tree of least ten feet high and having a trunk that is at least two inches in diameter dbh within County right-of-way. An encroachment permit is required and replacement measures are recommended for any tree to be removed. Following County regulations would reduce impacts to a less than significant level.

The Planning Area is not within identified conservation priority areas and is not subject to the provisions of any Habitat Conservation Plan, or other conservation plan for the region. The County is concurrently updating its resource conservation, agriculture, and open space (ROSA) elements. These elements are intended to guide land use policies in the Castro Valley General Plan, which must reinforce and be consistent with the County ROSA. It is important to note that at the drafting of this document, the County has not adopted the Draft ROSA nor has it been through CEQA review. As such, CEQA does not require analysis of this project's consistency with the ROSA.

IMPACTS AND MITIGATION MEASURES

Impact

- 3.5-1 **Implementation of the proposed General Plan could result in substantial adverse effects on steelhead, western pond turtle, California tiger salamander, California red-legged frog, or their habitat. (*Less than Significant*)**

Implementation of the General Plan could include construction activities within stream channels and upland areas in close proximity to channels. These activities could result in adverse impacts to special-status aquatic species. Construction related short-term increases in sedimentation and turbidity could degrade spawning habitat, fill pools, and smother fish eggs and food. Furthermore, suspended sediments increase the turbidity of the water, which could result in mortality or cause gill abrasion and decreased visibility during foraging. Due to the mobility of suspended sediments and turbidity, these impacts could extend beyond the Planning Area to the downstream reaches of the creeks.

Figure 3.5-2: Biological Resources Overlay Zon

Figure 3.5-2: Biological Resources Overlay Zone (back)

Steelhead or special-status fish species could be crushed by equipment or workers during instream construction activities. As such, isolating the work area from actively flowing water through the use of coffer dams and dewatering pumps could be necessary. These dewatering activities can lead to fish becoming concentrated or stranded in residual wetted areas. If the potential exists for special-status fish species to occur in the project area, then prior to construction activities, capture and relocation procedures should be implemented by a qualified biologist according to established guidelines. These protective measures would apply for other special status aquatic species, such as California red-legged frog and western pond turtle.

Leaks or spills of fuel, lubricants, paving media, or other substances used in construction could degrade water quality and adversely impact aquatic habitat. Additionally, the clearing of riparian vegetation for work site access could be required and may result in temporary impacts to steelhead habitat. Riparian vegetation is an important component of steelhead habitat, providing channel shading, bank stability and complexity, instream cover in the form of large woody debris, and an important source of organic matter and food. The temporary loss of riparian vegetation may result in increased soil erosion, elevated water temperatures, and loss of fisheries habitat complexity.

Habitat for other aquatic species such as California tiger salamander, California red-legged frog, and western pond turtles exists in various areas throughout the eastern half and southern portions of the Planning Area. Development of areas within or adjacent to suitable wetlands, creeks, or ponds has the potential to impact these species. Construction activities such as vegetation clearing, grading, and other site clearing operations could destroy habitat for these species. Compliance with state law through obtaining required permits and agreements as well as policies and programs in the proposed General Plan would reduce this impact to a less than significant level. Further, as part of the development review process, site-specific biological resources assessments are required to consider the impacts to sensitive habitats and special status species. If development is located outside these sensitive habitat areas, no site-specific assessment of biological resources is necessary. Appropriate mitigation measures to reduce impacts to sensitive habitats and special status species would be imposed on a project-by-project basis according to the County's environmental review process and consultation with appropriate State and federal regulatory agencies.

Proposed General Plan Policies and Programs that Reduce the Impact

The Draft General Plan proposes establishment of a Biological Resources Overlay Zone to protect areas with substantive biological resources, such as creeks, hillsides, and riparian areas, by requiring special review of proposed development in the zone. Figure 3.5-1 of this EIR identifies the biological resource priority levels in the Planning Area. The highest priority resources would be waterways, drainages, oak riparian woodland, permanent open space areas, and coastal scrub areas near creeks or large open space areas. Special review would be required for projects in high priority areas as well as for development on sites larger than two acres in moderate- and low-priority zones. Special review may involve environmental review, site plan and development review, and the application of board policy or ordinance requirements. Other policies and programs that would reduce the Plan's impact on aquatic species include the following:

- Policy 7.1-1** Protect the County’s major wildlife corridors that run through Castro Valley: (1) the corridor along the east Bay Hills in the forest and chaparral between major interstate highways; and (2) along streams, especially those with riparian vegetation. (Reference – Draft ROSA Policy RC-41, Protection of Wildlife Corridors)
- Policy 7.1-3** Incorporate design features that minimize the impacts of development on biological resources in any development planned on or adjacent to high and moderate priority areas designated on the Figure 3.5-2, Biological Resources Overlay Zone (Reference – Draft ROSA Policy RC-24, Minimization of Biological Impacts)
- Policy 7.1-5** Discourage loss of riparian woodlands and seasonal and perennial wetlands, including ponds, by requiring replacement mitigation at a ratio to be determined by the value of the habitat to be lost. To facilitate replacement mitigation, the County shall support the creation of wetland or other habitat mitigation banks. (Reference – Draft ROSA Policy RC-32 - Replacement Mitigation Ratio)
- Policy 7.1-7** Protect the Wildlife Movement Corridors where they cross under I-580 for special status species such as the California red-legged frog. (Reference – Draft ROSA Policy RC-42 - Corridors for Special Status Species)
- Policy 7.1-8** Protect all creeks and flood channels that traverse the urbanized area of Castro Valley, because they serve as movement corridors for wildlife. (Reference – Draft ROSA Policy RC-43, Water Channels as Wildlife Corridors)
- Policy 7.1-10** Actively encourage agencies responsible for public infrastructure to site and design roadways and other linear facilities (e.g. sewer and other utility lines) in such a way as to minimize impacts to wildlife corridors, creeks, and regional trails. Where appropriate, grade-separated crossings and/or other features should be used to maintain the viability of the affected corridor. (Reference - Draft ROSA Policy RC-46, Public Infrastructure)
- Action 7.1-2** Establish a Biological Resources Overlay Zone delineating high, moderate, and low priority areas for habitat preservation, to ensure maximum protection of biological resources.
- Require discretionary review for all development applications on properties within the high priority biological resources overlay zone, and for large sites over two acres in size with moderate or low priority biological resources. Discretionary review could include one or more of the following: environmental assessment per the California environmental quality act; site plan and development review; and/or the application of Board policy or other ordinance requirements.
 - Establish in the ordinance that on lands with biological resources, new development is not necessarily entitled to be built to the maximum density al-

lowed by the underlying zoning. An environmental assessment may be required, prepared by a qualified biologist, which shall be the basis for establishing development constraints specific to the property in question. Development intensity may be required to be reduced up to 50 percent of the intensity allowed by the underlying zoning, depending on the extent and value of the biological resources on the site.

- Establish thresholds of review for different types of projects. For example, a comprehensive environmental assessment should be required for new subdivisions, whereas minor improvements such as fences or decks may be exempt from special review if they meet specific standards.

Action 7.1-3 Develop design guidelines for development projects about how to minimize the impacts of development on biological resources. Apply these guidelines through the Planning Department’s project review process. Include information about ways in which special-status plant and wildlife populations on private properties can be protected over time. Specify that watercourses and areas dominated by native trees and shrubs be left undisturbed by development to the maximum extent feasible. (Reference – Draft ROSA Program RC-27, Minimize Development Impacts)

Policy 7.2-1 Encourage protection of streams and adequate stream buffers to maintain and where appropriate enhance important stream functions, including: flood protection, recreational corridors, wildlife movement corridors, wildlife habitat, and aesthetic resources. (Reference – Draft ROSA Policy RC-7, Stream Protection)

Policy 7.2-2 Manage streams for multiple uses where the County has responsibility for flood control and maintenance of channels and detention basins. Such uses include maintaining scenic quality, facilitating recreation, improving water quality and soil conservation, providing groundwater recharge and protecting and restoring both natural riparian vegetation and wildlife habitats. (Reference – Draft ROSA Policy RC-8, Stream Management for Multiple Uses)

Policy 7.2-4 Require new development to set aside sufficient right-of-way and setback areas to accommodate multi-use objectives for storm drainage, flood control features, recreation, habitat protection, and other appropriate uses. (Reference – Draft ROSA Program 6 – Require Setbacks)

Policy 7.2-5 New development shall be set back from the centerline of a creek, and shall not disturb any riparian habitat. In areas where existing development has already encroached upon the stream channel, new development shall not encroach any closer towards the creek channel or riparian habitat.

Action 7.2-1 Revise the County’s Watercourse Protection Ordinance to ensure maximum protection of creeks and adjacent riparian habitat, because those creek areas serve to control flooding, improve water quality, and provide critical habitat for biological resources. Provisions to include are:

- Do not allow grading or structures within a creek bed, unless flooding and erosion pose an imminent hazard to public health and safety, or are required to prevent serious property damage. Improvements must preserve natural drainage and habitat to the maximum extent feasible, and not cause further acceleration of water flow or erosion further downstream.
- Establish revised setbacks between structures and open creek channels, and require construction methods that minimize flooding and erosion. Establish different setbacks depending on the type of structure, for example fence posts may be closer to a creek channel than houses. Increase the setback for habitable structures to be greater than the existing standard of 20 feet.
- Limit the amount of impervious surface within 100 feet of the top of the creek bed channel to limit erosion and acceleration of water flow into the creek channel.
- Establish basic standards for construction in or near creekside areas, so applicants have a clear understanding of what is expected. Basic requirements for accessory structures like decks and fences should be established so permits can be issued expeditiously.
- For construction of new homes or significant expansion of existing homes on creekside properties, require preparation of a creek protection plan. The creek protection plan shall be prepared by qualified professionals such as biologists and hydrologists. The creek protection plan should establish areas most suitable for construction, and procedures to be used during construction that will minimize impacts on the creek channel and riparian vegetation.

Action 7.2-5 Work with public agencies, nonprofit organizations, and other interested parties to develop a Comprehensive Creek Corridor Open Space Plan, identifying key acquisitions along creek corridors. Also identify restoration potential along creek corridors, and develop alternative management practices to better provide multiple open space values along creek corridors. (Reference – Draft ROSA Program OS-13, Develop Comprehensive Creek Corridor Plan)

Action 7.2-6 Implement the San Lorenzo Creek Action Plan, prepared as part of the County Public Works Stormwater Quality Management Plan, as well as other restoration and trail projects in the San Lorenzo Creek watershed, to the extent that funds are available. (Reference – Draft ROSA Program RC-22, San Lorenzo Creek Action Plan)

Mitigation Measures

No mitigation measures are required.

Impact

3.5-2 Implementation of the proposed General Plan could result in disturbance to nesting raptors, special-status nesting birds, or yellow warbler. (*Less than Significant*)

Raptors such as Cooper’s hawk, sharp-shinned hawk, red-tailed hawk, white-tailed kite, and other bird species such as the yellow warbler, may forage and nest in the General Plan Area. These bird species are protected as federal species of concern, California species of special concern, and/or under the California Fish and Game Code. Other native birds, including their nests and eggs, are protected during nesting season under the California Fish and Game Code. Construction activities during the breeding season (including clearing, grading, trimming, and removal of trees, shrubs, and other nesting habitat for pipelines, roadways, and project facilities) could result in direct mortality of special-status birds. Human disturbance and construction noise could cause nest abandonment, death of young, or loss of reproductive potential at active nests located near project activities. Construction activities within or adjacent to suitable grassland habitat for burrowing owls could result in direct mortality, nest destruction, and noise disturbance. These impacts would be significant. However, compliance with State, Federal and local laws and regulations, which could require focused surveys or obtaining required permits and agreements; compliance with the County’s Tree Ordinance (Chapter 12.11), and the applicable General Plan policies and programs, as listed below, would reduce this impact to a less than significant level. Further, a more detailed analysis will be required of future development project proposals, on a project-by-project basis, to determine the potential for adverse impacts to bird species.

Proposed General Plan Policies and Programs that Reduce the Impact

The Draft General Plan proposes establishment of a Biological Resources Overlay Zone to protect areas with substantive biological resources, such as creeks, hillsides, and riparian areas, by requiring special review of proposed development in the zone. Figure 3.5-1 of this EIR identifies the biological resource priority levels in the Planning Area. The highest priority resources would be waterways, drainages, oak riparian woodland, permanent open space areas, and coastal scrub areas near creeks or large open space areas. Special review would be required for projects in high priority areas as well as for development on sites larger than two acres in moderate- and low-priority zones. Special review may involve environmental review, site plan and development review, and the application of board policy or ordinance requirements. Other policies and programs that would reduce the Plan’s impact on nesting raptors, special-status nesting birds, and the yellow warbler include Policies 7.1-1, 7.1-3, 7.2-1, 7.2-2, 7.2-4 and Actions 7.1-2, 7.1-3 listed above, plus:

Action 4.3-5 Require preparation of a Jensen Road Precise Plan or design guidelines prior to any subdivision of existing lots larger than two acres to ensure that future development is sensitive to the area’s biological resources, complements the existing Palomares Hill development, and will be adequately served by public services and facilities.

Policy 7.1-2 Preserve a continuous band of open space consisting of a variety of plant communities and wildlife habitats to provide comprehensive rather than

piecemeal habitat conservation for all of Alameda County. (Reference – Draft ROSA Policy OS-3, Contiguous Habitat Conservation)

- Policy 7.1-11** Require that open space provided as part of a development project be designed to achieve multiple open objectives, including but not limited to: recreation, scenic values, habitat protection, and public safety. (Reference - Draft ROSA Policy OS-11, Open Space Provided by Development)
- Policy 7.3-1** Continue to implement the Alameda County Tree Ordinance to protect trees in the public right-of-way.
- Policy 7.3-2** Ensure that new development contributes to the maintenance and enhancement of the community's natural environment by preserving existing native trees whenever feasible, replacing trees on-site, and adding trees and other vegetation in the public right-of-way.
- Policy 7.3-3** Promote the use of native tree and plant species in public and private landscaped areas.
- Policy 7.3-4** Encourage the East Bay Regional Park District to restore historical woodlands and grasslands to provide natural habitat and reduce fire danger.
- Action 7.3-1** Provide sufficient funding to ensure enforcement of the Alameda County Tree Ordinance to require permits for planning, pruning, or removing trees in the public right-of-way.

Mitigation Measures

No mitigation measures are required.

Impact

- 3.5-3** Implementation of the proposed General Plan could result in substantial adverse effects on special status bat species or their habitat. (*Less than Significant*)

The Planning Area has numerous large trees, cliffs, and buildings that may provide cavities suitable for bat roosting, and suitable foraging habitat as well. These bats have the potential to be impacted by the development that would occur under the proposed General Plan, especially projects located in close proximity to wooded or riparian areas. Construction activities such as building demolition, tree removal, could destroy habitat for these species. Impacts to this species resulting from development within the Planning Area would be potentially significant. However, compliance with State, Federal and local laws and regulations, which could require focused surveys and relocation of bats (if present) or obtaining required permits and agreements; and the applicable policies and programs contained in the General Plan would reduce this impact to a less than significant level. A more detailed analysis will be required of future development project proposals, on a project-by-project basis, to determine the potential

for adverse impacts to bats. No mitigation measures are required beyond the compliance and coordination actions required above.

Proposed General Plan Policies and Programs that Reduce the Impact

The Draft General Plan proposes establishment of a Biological Resources Overlay Zone to protect areas with substantive biological resources, such as creeks, hillsides, and riparian areas, by requiring special review of proposed development in the zone. Figure 3.5-1 of this EIR identifies the biological resource priority levels in the Planning Area. The highest priority resources would be waterways, drainages, oak riparian woodland, permanent open space areas, and coastal scrub areas near creeks or large open space areas. Special review would be required for projects in high priority areas as well as for development on sites larger than two acres in moderate- and low-priority zones. Special review may involve environmental review, site plan and development review, and the application of board policy or ordinance requirements. Other policies and programs that would reduce the Plan's impact on special status bat species or their habitat include the Policies 7.1-1, 7.1-2, 7.1-3, 7.1-11, 7.2-4, 7.3-1, 7.3-2, 7.3-3, 7.3-4 and Actions 7.1-2, 7.1-3, 7.3-1 listed above.

Mitigation Measures

No mitigation measures are required.

Impact

3.5-4 Future development could result in direct impacts to Alameda whipsnake or habitat for this listed species. (*Less than Significant*)

– Castro Valley is located within the known range of several special status species including the federally threatened Alameda whipsnake (*Masticophis lateralis euryxanthus*). Additionally, the Planning Area is located 0.5 mile west of proposed Critical Habitat for Alameda whipsnake. These species, and others, have the potential to be impacted by development within the Planning Area, especially projects located in the eastern Planning Area in undeveloped coastal scrub habitat. However, as this species requires rock outcrops for cover and foraging and little or no such habitat exists in areas planned for development, the likely hood of occurrences of this species, or adverse impacts to this species is low. Further, most of the undeveloped parcels in the eastern portion of the planning area are proposed as Open Space, and as such, would not be developed. Construction activities such as vegetation clearing, grading, and other site clearing operations could destroy habitat for this and other special status species.

– Compliance with state law through obtaining required permits and agreements as well as policies and programs contained in the proposed General Plan (listed below) would reduce this impact to a less than significant level. Further, as part of the development review process, site-specific biological resources assessments are required to consider the impacts to sensitive habitats and special status species. If development is located outside of areas with biological resources of high priority, as indicated on Figure 3.5-2, or on sites larger than two acres of low to moderate priority, then no site-specific assessment of biological resources is necessary. Appropriate mitigation measures to reduce impacts to priority status biological resources, or

sensitive habitats, or to special status species would be imposed on a project-by-project basis according to the County's environmental review process and consultation with appropriate State and federal regulatory agencies.

– ***Proposed General Plan Policies and Programs that Reduce the Impact***

The Draft General Plan proposes establishment of a Biological Resources Overlay Zone to protect areas with substantive biological resources, such as creeks, hillsides, and riparian areas, by requiring special review of proposed development in the zone. Figure 3.5-1 of this EIR identifies the biological resource priority levels in the Planning Area. The highest priority resources would be waterways, drainages, oak riparian woodland, permanent open space areas, and coastal scrub areas near creeks or large open space areas. Special review would be required for projects in high priority areas as well as for development on sites larger than two acres in moderate- and low-priority zones. Special review may involve environmental review, site plan and development review, and the application of board policy or ordinance requirements. Other policies and programs that would reduce the Plan's impact on the habitat for the Alameda Whipsnake include Policies 7.1-1, 7.1-2, 7.1-3, 7.1-11, 7.2-4, 7.3-4 and Actions 7.1-2, and 7.1-3 listed above.

Mitigation Measures

No mitigation measures are required.

Impact

3.5-5 Implementation of the General Plan could adversely impact sensitive natural communities and special status plant species and trees. (*Less than Significant*)

The western and central portions of the General Plan Area are primarily developed, with small patches of grassland and oak riparian woodland along the creeks (refer to Figure 3.5-1, Biological Resources, and Figure 3.5-2, Biological Resources Overlay Zone). The eastern portion of the General Plan Area supports primarily native habitats – coastal scrub, grassland, and oak riparian woodland. The majority of the undeveloped parcels in this portion of the planning area are proposed as Open Space, thereby being precluded from future development and minimizing the potential for impacts to native habitat. Most of the proposed development areas are located in the central portion of the Planning Area where substantive biological resources do not exist

Oak riparian woodland habitat is designated as high priority while coastal scrub and grassland habitat are considered common plant communities and designated as moderate priority. In certain circumstances, though, coastal scrub and grassland communities may have higher preservation value when they provide potential habitat for threatened species such as California red-legged frog or Alameda whipsnake or when they are suitable habitats supporting special-status plants. In addition, grassland habitats have potential to contain wetland habitats and small drainages that would be considered high priority for preservation. Isolated patches of non-native dominant habitat surrounded by development would be considered a low priority for preservation. Riparian woodlands provide important migratory habitat, high-quality foraging habitat, breeding habitat, and cover for many common and special status species. As

such, impacts to riparian woodland could be considered significant as there is limited amount of this habitat type in Castro Valley and the surrounding areas. Further fragmentation or isolation of an important wildlife habitat, and disruption of natural wildlife movement corridors would occur with the destruction of riparian woodland in the Planning Area.

Areas proposed for development would require further site-specific biological surveys prior to construction (e.g., even developed areas and non-native dominant habitats could provide ornamental trees that could support nesting birds). The western and central portions of the General Plan Area are primarily developed. Native habitats include primarily oak/riparian woodland occurring along creeks. Other undeveloped areas support isolated patches of non-native dominant habitat. The eastern portions of the General Plan Area support primarily native habitats. Large portions of these undeveloped areas are already proposed for designation as open space under the General Plan. Habitats not included in open space areas but that should be considered high habitat preservation priority include three areas of coastal scrub described below. Further field surveys during project environmental review would determine suitability of these areas for Alameda whipsnake.

This priority scheme is intended to provide general guidance for the General Plan. Future field surveys of the Planning Area could identify features within grassland and non-native dominant habitats that would increase the preservation value of certain areas within these habitat types (i.e. wetlands and other aquatic features).

Santa Cruz tarplant, Alkali milk-vetch, Big-scale balsamroot, Fragrant fritillary Diablo helianthella, Robust monardella are known to occur outside of the Planning Area. While no known occurrences of these special status plants are within the Planning Area, woodland, grassland, and scrub does provide suitable habitat for these species and does occur throughout the Planning Area. Any land clearing activities associated with construction of projects in these habitat areas, as proposed under the General Plan, would have the potential to destroy individual plant species.

The County's Tree Ordinance, Chapter 12.11, provides protection for any tree at least ten feet high with a trunk that is at least two inches in diameter dbh within County right-of-way. An encroachment permit is required and replacement measures are recommended for any tree to be removed. Compliance with Policy OS 53, and OS-59, which require avoidance and/or replacement measures for trees, would reduce the potential for adverse impacts to large trees or stands of trees.

Compliance with State, Federal and local laws and regulations, which could require focused surveys to be conducted using CDFG botanical survey guidelines, and compliance with the County's Tree Ordinance, combined with appropriate mitigation measures that reduce impacts to special status plant species or their habitat would be imposed on a project-by-project basis according to the County's environmental review process. The General Plan policies and programs listed below further ensure that less than significant impacts to special status plant species or protected trees would occur.

Proposed General Plan Policies and Programs that Reduce the Impact

The Draft General Plan proposes establishment of a Biological Resources Overlay Zone to protect areas with substantive biological resources, such as creeks, hillsides, and riparian areas, by requiring special review of proposed development in the zone. Figure 3.5-1 of this EIR identifies the biological resource priority levels in the Planning Area. The highest priority resources would be waterways, drainages, oak riparian woodland, permanent open space areas, and coastal scrub areas near creeks or large open space areas. Special review would be required for projects in high priority areas as well as for development on sites larger than two acres in moderate- and low-priority zones. Special review may involve environmental review, site plan and development review, and the application of board policy or ordinance requirements. Other policies and programs that would reduce the Plan's impact on sensitive natural communities and special status plant species and trees include Policies 7.1-1, 7.1-2, 7.1-3, 7.1-11, 7.2-4, 7.3-1, 7.3-2, 7.3-3, 7.3-4 and Actions 7.1-2, 7.1-3, 7.3-1 listed above, plus:

Action 7.3-3 Consider adopting an ordinance to preserve and protect heritage trees including native oaks and other significant native trees on private property.

Action 7.3-4 Consider adopting guidelines to promote the use of native trees and plants when landscaping on any County property.

Mitigation Measures

No mitigation measures are required.

Impact

3.5-6 Implementation of the General Plan could adversely affect riparian areas, wetlands and "other waters of the United States." (Less than Significant)

Future development projects under the proposed General Plan could include areas along or near creeks within the Planning Area. Development in previously undeveloped sites or sites directly adjacent to a watercourse has the potential to adversely affect riparian habitat, wetlands, or "other waters of the U.S.". Alterations of the flow, bed, channel, or bank of California streams from the construction of bridges, culverts, pipelines, and/or other project infrastructure that could result are regulated pursuant to Sections 1600-1616 of the California Fish and Game Code. The loss of wetlands and "other waters of the U.S." and potential alterations to the bed or banks of stream courses within the planning area would be a potentially significant impact. Compliance with state law through obtaining required permits and agreements and the applicable General Plan policies and programs as stated below would reduce impacts to riparian areas, wetlands and/or "other waters of the United States."

Proposed General Plan Policies and Programs that Reduce the Impact

The Draft General Plan proposes establishment of a Biological Resources Overlay Zone to protect areas with substantive biological resources, including creeks and riparian areas, by requiring special review of proposed development in the zone. Figure 3.5-1 of this EIR identifies the biological resource priority levels in the Planning Area. The highest priority

resources include waterways, drainages, oak riparian woodland, and coastal scrub areas near creeks. Special review would be required for projects in high priority areas as well as for development on sites larger than two acres in moderate- and low-priority zones. Special review may involve environmental review, site plan and development review, and the application of board policy or ordinance requirements. Other policies and programs that would reduce the Plan's impact on wetlands, riparian areas, and other waterways included in Policies 7.1-1, 7.1-3, 7.1-5, 7.1-10, 7.2-2, 7.2-4, 7.2-5 and Actions 7.1-2, 7.1-3, 7.2-3, 7.2-5, and 7.2-6 listed above, plus:

- Action 7.2-7** Work with non-governmental organizations such as the Urban Creeks Council on stream protection and restoration efforts in order to support multiple use, community involvement, and resource enhancement. (Reference – Draft ROSA Program 25 - Work with NGO's on Creek Enhancement)
- Action 7.3-5** Consider adopting an ordinance to preserve and protect riparian vegetation, with exceptions for clearing hazards, clearing blocked channels, and other activities necessary for public safety.

Mitigation Measures

No mitigation measures are required.

REFERENCES

Alameda County Agriculture Advisory Committee, *Alameda County Oak Woodlands Management Plan and Background for the General Plan and S.B. 1334 Implementation*, January 25, 2005.

Alameda County, *Castro Valley Draft General Plan*, January, 2007

Alameda County, *Draft– Resources, Open Space, and Agriculture (ROSA) Elements*, April 2006.

Alameda County, *Eden Area General Plan Draft EIR*, September 15, 2006

Alameda County General Ordinance Code. *Chapter 12.11 of Title 12, Tree Ordinance*

Alameda County Resources Conservation Element, 1994; *Scenic Route Element 1966; Open Space Element*, 1973

Alameda County Specific Plan for Areas of Environmental Significance, 1977

California Fish and Game Code, Sections 1600-1616, 3503, 3503.5, 3513

California Fish and Game Code Sec. 1900-1913 (California Native Plant Protection Act)

California Fish and Game Code. Section 2050 (California Endangered Species Act)

California Fish and Game Code B. Sections 3511, 4700, 5050, 5515

State of California, Department of Fish and Game. California Natural Diversity Database, 2006
<<http://www.dfg.ca.gov/bdb/html/cnddb.html>>

California Native Plant Society. Inventory of Rare and Endangered Plants (online edition, v7-07a). California Native Plant Society. Sacramento, CA. Accessed on Mon, Feb. 26, 2007 from <http://www.cnps.org/inventory>

Code of Federal Regulations. *Title 50, Section 10.13, Migratory Bird Treaty Act (MBTA)*, 1918

Hayward, Oakland East, Las Trampas Ridge, Dublin, Niles, Diablo, Newark, Redwood Point, and San Leandro 7.5 minute USGS quadrangle maps

National Marine Fisheries Service. Website: <http://www.nwfsc.noaa.gov>. August 13, 2006.

U.S. Clean Water Act, 33 U.S.C. § 1251, Sections 401 and 404

U.S. Department of Transportation, Federal Highway Administration, and State of California Department of Transportation. I-580/Castro Valley Interchange Improvement Project, Initial Study/Environmental Assessment, Mitigated Negative Declaration, June 2006.

U.S. Endangered Species Act (FESA) 7 U.S.C. § 136, 16 U.S.C. § 1531, 1973

U.S. Environmental Protection Agency. Website: <http://www.epa.gov/fedrgstr/EPA-SPECIES>. August 21, 2006

U.S. Fish and Wildlife Service. *Designation of Critical Habitat for the Alameda Whipsnake, Final Rule* (Federal Register, October 2, 2006)

U.S. Fish and Wildlife Service: Website species list databases, 2006

3.6 Fire Hazards

This section addresses the existing fire hazards and the impacts of fire hazards on development that could occur under the proposed General Plan.

ENVIRONMENTAL SETTING

PHYSICAL SETTING

A wildfire, also known as a forest fire, vegetation fire, grass fire, brush fire, or hill fire, is an uncontrolled fire often occurring in wildland areas, but can also consume houses or agricultural resources. Common causes are lightning, human carelessness and arson. Fire hazard potential is largely dependent on the extent and type of vegetation, known as surface fuels, which exist within a region. Suburban, urban and rocky, barren areas have minimal surface fuels and therefore typically have the lowest fire hazard. Fire hazards are typically highest in heavily wooded, undeveloped areas as trees are a greater source of fuel than low-lying brush or grasslands. Forest fires start small and can only grow and spread if favorable fuels, heat, and oxygen are available. The propagation of the fire has three mechanisms:

- "Crawling" fire: the fire spreads via low level vegetation (e.g., bushes)
- "Crown" fire: a fire that "crowns" (spreads to the top branches of trees) can spread at an incredible pace through the top of a forest. Crown fires can be extremely dangerous to all inhabitants underneath, as they may spread faster than they can be outrun, particularly on windy days. (see Firestorm)
- "Jumping" or "spotting" fire: burning branches and leaves are carried by the wind and start distant fires; the fire can thus "jump" over a road, river, or even a firebreak.

Sections of Castro Valley border regional parks and undeveloped resource conservation lands established by Measure D, and are thus subject to greater fire hazard. The areas of most risk rim the city to the north, east, and south where residential areas border wooded areas, as depicted in Figure 3.6-1.

In areas of high fire hazard, the level of risk for structures depends on the materials with which the structures are built (i.e., a concrete structure would resist fire more than a structure covered with wooden shingles) and the proximity to fuel sources, such as trees, shrubs, and wood piles. The ability of fire protection assistance to access a site is also an important issue when determining fire risk. Fire engines need adequate water sources, roads, and turning radii in order to adequately fight fires.

Alameda County Fire Department staff stated that, in certain limited locations, water supply lines may not be of adequate size to meet pressure requirements for fire protection for new infill development. Such locations are typically in flatter areas with higher densities, such as downtown Castro Valley.

REGULATORY SETTING

Within the State of California, responsibility for wildland fire protection falls into two categories: State Responsibility Areas (SRA) and Local Responsibility Areas (LRA). The California Public Resources Code (PRC) defines SRAs as areas for which the State has financial responsibility of preventing and suppressing fires. Under PRC Sections 4125 and 4126, these areas are generally vegetated lands that have watershed value but not land within incorporated cities or are federally-owned. All other areas are LRAs in which local governments are responsible for preventing and suppressing fires.³¹ Most of the Castro Valley Urban Area falls within a LRA and is, therefore, under the jurisdiction of the Alameda County Fire Department. High fire hazard areas in the northern and eastern areas of Castro Valley are within an SRA and are under the jurisdiction of the State (see Figure 3.6-1).

Following the 1991 Oakland-Berkeley Hills Fire, the State Legislature charged the California Department of Forestry and Fire Protection (CDF) with the task of identifying fire hazard areas within LRAs that classify as “very high fire hazard severity zones” (VHFHSZ). The law (Government Code 51175 et seq.) also required local agencies to designate, by ordinance, VHFHSZ in their jurisdictions following the identification of these areas by CDF. Local agencies were exempt from this requirement if they adopted or already had ordinances before December 31, 1992 that were equivalent to or more restrictive than the state standards (Government Code Section 51179). Determinations of VHFHSZ were based on a variety of factors including fuel, fire history, terrain influences (i.e., slopes), housing density, and occurrences of severe fire weather. All of the LRA in Castro Valley has been identified as a VHFHSZ by the CDF.

IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

Impacts of buildout of the proposed General Plan would be significant if they would:

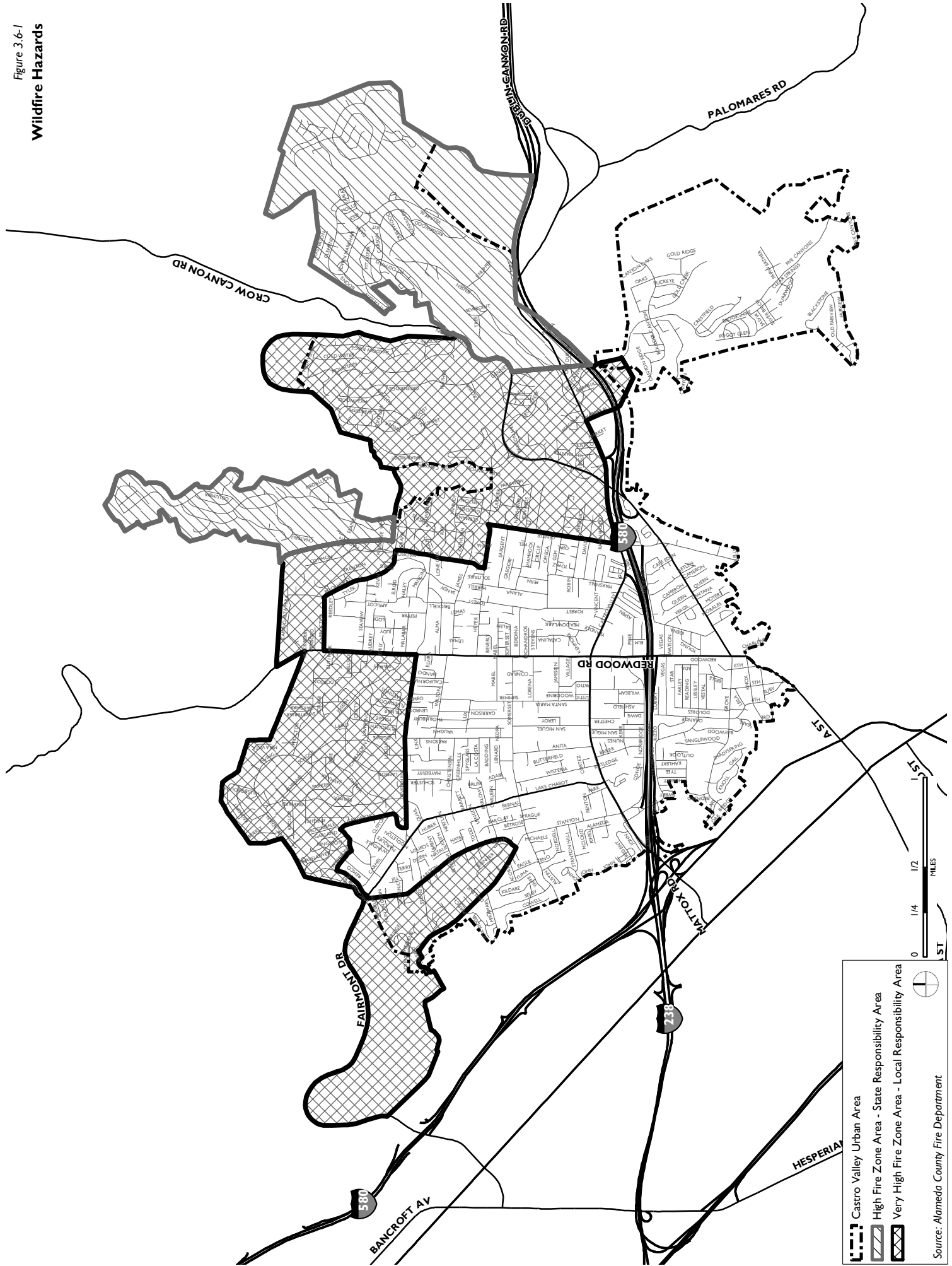
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are in-termixed with wildlands.

METHODOLOGY & ASSUMPTIONS

Fire hazard maps were examined and field work to document fire hazards in the Castro Valley Urban Area were conducted. In addition, interviews were conducted with representatives from the Alameda County Fire Department to identify areas or issues of particular concern for fire fighters in the Castro Valley Urban Area.

³¹ California Department of Forestry & Fire Protection website, http://www.fire.ca.gov/fire_er_sra.php

Figure 3.6-1
Wildfire Hazards



Source: Alameda County Fire Department

SUMMARY OF IMPACTS

The proposed General Plan may result in residential development in areas of Castro Valley that are most susceptible to wildland fires. However, the proposed General Plan includes policies to minimize risks from wildland fires to that proposed development; therefore, the impact would be less than significant.

IMPACTS AND MITIGATION MEASURES

Impact

- 3.6-1 Development in the northern, eastern, and southeastern areas of Castro Valley where residential areas border wooded areas may increase risk from wildland fires. (Less than Significant)

Residential construction and development proposed by the General Plan may result in increased wildland fire hazard, particularly in the northern and eastern areas adjacent to open areas and slopes covered with tall grasses, chaparral, or heavily wooded areas. The proposed General Plan includes policies that would reduce the risk of wildlands fires to less than significant.

Proposed General Plan Policies that Reduce the Impact

Policy 10.1-1 Increase preparedness for and reduce impacts from wildland fires.

Action 10.1-1 Revise the zoning code and zoning map to include a Hazards Overlay District (using (General Plan) Figure 10-1, Fire Hazards – see DEIR Figure 3.6-1), which establishes regulations for new construction and expansions for areas of Castro Valley that are more susceptible to impacts from Natural Hazards as identified on the map. Place a copy of Figure 10-1, Fire Hazards, at the County’s Planning Counter to inform project applicants that the project site is in or adjacent to a Very High Fire Zone Area.

Action 10.1-2 Establish clearly in County zoning and other ordinances that the Fire Department has the authority to recommend denial or modification to proposed development projects, particularly for projects proposed within Very High Fire Zone Areas as identified in Figure 10-1, Fire Hazards, to reduce the risk of bodily harm, loss of life, or severe property damage and environmental degradation.

Action 10.1-3 Establish clearly in County zoning and other ordinances that the Fire Department may require the use of appropriate fire resistant building materials, installation of fire sprinklers, and/or vegetation management, and that such requirements shall be based on a property’s access, slope, water pressure, and proximity to wildland areas. Such requirements shall apply particularly to projects proposed within Very High Fire Zone Areas as identified in Figure 10-1, Fire Hazards, but may also apply to other properties where access for emergency vehicles does not fully comply with adopted standards.

Action 10.1-4 Establish an interdepartmental review process for proposed projects in Very High Fire Zone Areas where Fire, Public Works, Planning, and other County Departments consult and establish reasonable and consistent requirements for streets, driveways, and emergency access prior to zoning approval.

Action 10.1-5 For any proposed projects that increase density, identify early in the development review process whether or not they are served by adequate water pressure for fire suppression purposes. Also identify if the roadway serving the project is deficient in terms of access for emergency vehicles. Identify any access improvements that may be required, for example roadway widening along property frontage, or additional off-street parking.

Action 10.1-6 Upgrade and standardize fire hydrants to accept equipment from neighboring fire districts so that the County can accept assistance through a mutual aid request during an emergency.

Action 10.1-7 Work with EBMUD to conduct a comprehensive study of water pressure, fire flows, hydrant spacing and type in Castro Valley and create a “Master Plan for Fire Suppression Water Services” in order to identify the need for hydrant upgrades, additional hydrants, and pipeline upgrading or replacement for fire-fighting purposes. The study shall establish a capital improvements program and appropriate development impact fees to help fund replacement of inadequate pipes. The Master Plan should focus on the following areas in Castro Valley that have been identified as areas that may have inadequate water pressure for fire-fighting purposes on some streets:

- Areas designated Residential Mixed Density (RMX) on the General Plan land Use Map where additional medium density infill residential development is anticipated;
- Subareas in the Central Business District where medium to high-density residential uses are designated and infill development is encouraged;
- Areas where major renovation, expansion or rebuilding of large facilities are occurring such as Eden Hospital

According to the Alameda County Fire Department, some streets have water pipes with a four inch diameter, and six inch diameter or larger pipes are often necessary to provide adequate water pressure and flows for fire suppression.

Action 10.1-8 Enforce the requirement that Home Owners Associations in Planned Unit Development areas are responsible for vegetation management by establishing a regular review schedule for areas subject to this requirement.

Action 10.1-9 Revise the County’s Integrated Vegetation Management Program to require private property owners to maintain the vegetation on their property in a condition that will not contribute to the spread of a fire. Requirements for private property owners could include, but need not be limited to, the following:

- Maintain a 30-foot defensible space around all buildings and structures;
- Remove all portions of trees within 10 feet of chimneys and stovepipe outlets;
- Remove materials or plants that may act as a fuel or a conveyance of fire (such as dead/dying wood on trees adjacent to/overhanging structures, leaves, pine needles, etc. on rooftops or elsewhere on the property); and
- Install spark arrester in chimney and or stovepipe outlets.

The County's Integrated Vegetation Management Program is used by the Public Works Agency to control plants that may pose a fire danger, obstruct drainage water, or interfere with facility maintenance. The Integrated Vegetation Management Program does not currently apply to private property owners. In addition, Chapter 6.44 of the County's General Ordinance prohibits vegetation that may increase fire hazards, but the ordinance does not identify specific vegetation management measures that private property owners are responsible for in order to reduce fire hazards on their properties.

Action 10.1-10 Consider establishing and funding an enforcement district for fire hazard areas and wildland, intermix and interface areas; and establish an inspection period to be conducted annually for properties located in these areas. Mail notices to the residents in these areas notifying them of the inspection period, listing the standards for vegetation management on their properties, and suggesting tips for compliance. Additional funding would be required, such as the formation of an assessment district or other means.

Action 10.1-11 Require public streets for subdivisions with greater than 10 lots.

The maintenance of and parking enforcement for a public street can be more reliable than for private streets which could in return result in better maintained emergency access.

Action 10.1-12 Establish consistent standards for private streets depending on the number of units that the street will serve, the number of required parking spaces per unit, and reasonable access requirements and operational needs of emergency access vehicles and garbage trucks. Standards should include:

- Minimum paved roadway width requirements (i.e., 20 feet for roads serving five or more units or when part of required fire apparatus access, and 12 feet for roads serving between two and five units that is not part of required fire apparatus access);
- Turnarounds;
- Landscaping;
- Red curbs and signage for no parking zones;
- Sidewalks; and

- Parking standards.

Action 10.1-13 In hillside areas where street widths are substantially below the minimum 20-foot width standard required for emergency access, such as upper Madison Avenue/ Common Road, one or more of the following requirements should be imposed to ensure adequate emergency access:

- Sprinklers;
- Turnouts along the paved roadway;
- Additional on-site parking;
- Increased roadway width along the front of the property; or
- Parking restrictions.

REFERENCES

California Department of Forestry and Fire Protection. Fire hazard maps website:
<http://frap.cdf.ca.gov/data/frapgismaps/select.asp>
http://www.fire.ca.gov/fire_er_sra.php

California Government Code, Section 51175-51189

California Governor's Office of Planning and Research, *Fire Hazard Planning*, November, 2003.

3.7 Air Quality

This section discusses the local and regional air quality impacts of implementing the proposed General Plan. The setting section provides an overview of the regulatory context, plans, policies, and regulations, followed by region-specific information related to climate and topography and existing air quality conditions.

ENVIRONMENTAL SETTING

REGULATORY SETTING

The United States Environmental Protection Agency (EPA) is responsible for implementing the programs established under the federal Clean Air Act, such as establishing and reviewing the federal ambient air quality standards and judging the adequacy of State Implementation Plans (SIP). However, the EPA has delegated the authority to implement many of the federal programs to the states while retaining an oversight role to ensure that the programs continue to be implemented. In California, the California Air Resources Board (CARB) is responsible for establishing and reviewing the state ambient air quality standards, developing and managing the California SIP, securing approval of this plan from U.S. EPA, and identifying toxic air contaminants (TACs). CARB also regulates mobile emissions sources in California, such as construction equipment, trucks, and automobiles, and oversees the activities of air quality management districts, which are organized at the county or regional level. An air quality management district is primarily responsible for regulating stationary emissions sources at facilities within its geographic areas and for preparing the air quality plans that are required under the federal Clean Air Act and California Clean Air Act. The Bay Area Air Quality Management District (BAAQMD) is the regional agency with regulatory authority over emission sources in the Bay Area, which includes all of San Francisco, San Mateo, Santa Clara, Alameda, Contra Costa, Marin, and Napa counties and the southern half of Sonoma and southwestern half of Solano counties.

Criteria Air Pollutants

As required by the federal Clean Air Act passed in 1970, the U.S. EPA has identified six criteria air pollutants that are pervasive in urban environments and for which state and national health-based ambient air quality standards have been established. EPA calls these pollutants criteria air pollutants because the agency has regulated them by developing specific public health- and welfare-based criteria as the basis for setting permissible levels. The six criteria air pollutants are ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter (PM), and lead. The air pollutants of concern in the Bay Area are ozone, carbon monoxide, and particulate matter.

Ozone

Ozone (O₃) is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and that can cause substantial damage to vegetation and other materials. Ozone is not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and nitrogen oxides (NO_x). ROG and NO_x are known as precursor compounds

for ozone. Significant ozone production generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for approximately three hours. Ozone is a regional air pollutant because it is not emitted directly by sources, but is formed downwind of sources of ROG and NO_x under the influence of wind and sunlight. Ozone concentrations tend to be higher in the late spring, summer, and fall, when the long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, like ozone. Ground level ozone in conjunction with suspended particulate matter in the atmosphere leads to hazy conditions generally termed as “smog.”

Carbon Monoxide

Carbon monoxide (CO), a colorless and odorless gas is a non-reactive pollutant that is a product of incomplete combustion and is mostly associated with motor vehicles. High carbon monoxide concentrations develop primarily during winter when periods of light wind combine with the formation of ground level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased carbon monoxide emission rates at low air temperatures. When inhaled at high concentrations, carbon monoxide combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease or anemia.

Nitrogen Dioxide

Nitrogen dioxide is an air quality concern because it acts a respiratory irritant and is a precursor of ozone. Nitrogen dioxide is produced by fuel combustion in motor vehicles, industrial stationary sources (such as industrial activities), ships, aircraft, and rail transit.

Sulfur Dioxide

Sulfur dioxide is a combustion product of sulfur or sulfur-containing fuels such as coal and oil, which are restricted in the Bay Area. Its health effects include breathing problems and may cause permanent damage to lungs. SO₂ is an ingredient in acid rain (acid aerosols), which can damage trees, lakes and property. Acid aerosols can also reduce visibility.

Particulate Matter

PM-10 and PM-2.5 consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively. A micron is one-millionth of a meter, or less than one-25,000th of an inch. For comparison, human hair is 50 microns or larger in diameter. PM-10 and PM-2.5 represent particulate matter of sizes that can be inhaled into the air passages and the lungs and can cause adverse health effects. Particulate matter in the atmosphere results from many kinds of aerosol-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as demolition and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect. Very small particles (PM-2.5) of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed gases (e.g.,

chlorides or ammonium) that may be injurious to health. Particulates also can damage materials and reduce visibility.

PM-10 emissions in the project area are mainly from urban sources, dust suspended by vehicle traffic and secondary aerosols formed by reactions in the atmosphere. Particulate concentrations near residential sources generally are higher during the winter, when more fireplaces are in use and meteorological conditions prevent the dispersion of directly emitted contaminants.

Lead

Leaded gasoline (currently phased out), paint (houses, cars), smelters (metal refineries), manufacture of lead storage batteries have been the primary sources of lead released into the atmosphere. Lead has a range of adverse neurotoxic health effects; children are at special risk. Some lead-containing chemicals cause cancer in animals.

Other Considerations of Criteria Air Pollutants

Some criteria air pollutants are considered regional in nature, some are considered local, and some have characteristics that are both regional and local. Air pollutants are also characterized as “primary” and “secondary” pollutants. Primary pollutants are those emitted directly into the atmosphere (such as carbon monoxide, sulfur dioxide, lead particulates, and hydrogen sulfide). Secondary pollutants are those formed through chemical reactions in the atmosphere; these chemical reactions usually involve primary pollutants, normal constituents of the atmosphere, and other secondary pollutants. O₃ is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving ROG and NO_x. ROG and NO_x are known as precursor compounds for O₃. O₃ is a regional air pollutant because its precursors are transported and diffused by wind concurrently with O₃ production.

Ambient CO concentrations normally are considered a local effect and typically correspond closely to the spatial and temporal distributions of vehicular traffic. Wind speed and atmospheric mixing also influence CO concentrations. Under inversion conditions, CO concentrations may be distributed more uniformly over an area out to some distance from vehicular sources.

Ambient Air Quality Standards

Regulation of criteria air pollutants is achieved through both national and state ambient air quality standards and emissions limits for individual sources. Regulations implementing the federal Clean Air Act and its subsequent amendments established national ambient air quality standards (national standards) for the six criteria pollutants. California has adopted more stringent state ambient air quality standards for most of the criteria air pollutants. In addition, California has established state ambient air quality standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Because of the unique meteorological problems in the state, there is considerable diversity between state and federal standards currently in effect in California, as shown in Table 3.7-1. The table also summarizes the related health effects and principal sources for each pollutant.

The ambient air quality standards are intended to protect the public health and welfare, and they incorporate an adequate margin of safety. They are designed to protect those segments of the public most susceptible to respiratory distress, known as sensitive receptors, including asthmatics, the very young, the elderly, people weak from other illness or disease, or persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollution levels somewhat above the ambient air quality standards before adverse health effects are observed.

Table 3.7-1: State and National Criteria Air Pollutant Standards, Effects and Sources

<i>Pollutant</i>	<i>Averaging Time</i>	<i>California Standard</i>	<i>National Primary Standard</i>	<i>Major Pollutant Sources</i>	<i>Pollutant Health and Atmospheric Effects</i>
Ozone	1 hour	0.09 ppm	---	On-road motor vehicles, other mobile sources, solvent extraction, combustion, industrial and commercial processes.	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.
	8 hours	0.07 ppm	0.08 ppm		
Carbon Monoxide	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.	Classified as a chemical asphyxiant, carbon monoxide interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.
	8 hours	9.0 ppm	9 ppm		
Nitrogen Dioxide	1 hour	0.25 ppm	---	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.	Irritating to eyes and respiratory tract. Colors atmosphere reddish brown.
	Annual Average	---	0.053 ppm		
Sulfur Dioxide	1 hour	0.25 ppm	---	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.	Irritates upper respiratory tract, injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron and steel. Limits visibility and reduces sunlight.
	24 hours	0.04 ppm	0.14 ppm		
	Annual Average	---	0.03 ppm		
Respirable Particulate Matter (PM-10)	24 hours	50 µg/m ³	150 µg/m ³	Dust- and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays).	May irritate eyes and respiratory tract, decreases lung capacity and increases risk of cancer and mortality. Produces haze and limit visibility.
	Annual Average	20 µg/m ³	50 µg/m ³		
Fine Particulate Matter (PM-2.5)	24 hours	---	65 µg/m ³	Fuel combustion in motor vehicles, equipment and industrial sources; residential and agricultural burning. Also formed from photochemical reactions of other pollutants, including NO _x , sulfur oxides, and organics.	Increases respiratory disease, lung damage, cancer and premature death. Reduces visibility and results in surface soiling.
	Annual Average	12 µg/m ³	15 µg/m ³		

Table 3.7-1: State and National Criteria Air Pollutant Standards, Effects and Sources

Pollutant	Averaging Time	California Standard	National Primary Standard	Major Pollutant Sources	Pollutant Health and Atmospheric Effects
Lead	Monthly Average	1.5 µg/m ³	---	Present source: lead smelters, battery manufacturing & recycling facilities.	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurologic dysfunction.
	Quarterly	---	1.5 µg/m ³	Past source: combustion of leaded gasoline.	

Note: ppm = parts per million and µg/m³ = micrograms per cubic meter

Source: California Air Resource Board, 2006a.

Attainment Status

Under amendments to the federal Clean Air Act, U.S. EPA has classified air basins or portions thereof, as either “attainment” or “nonattainment” for each criteria air pollutant, based on whether or not the national standards have been achieved. The California Clean Air Act, which is patterned after the federal Clean Air Act, also requires areas to be designated as “attainment” or “nonattainment” for the state standards. Thus, areas in California have two sets of attainment / nonattainment designations: one set with respect to the national standards and one set with respect to the state standards.

The Bay Area is currently designated “nonattainment” for state 1-hour and national 8-hour ozone standards and for the state PM-10 and PM-2.5 standards. The Bay Area is “attainment” or “unclassified” with respect to the other ambient air quality standards. Table 3.7-2 also shows the attainment status of the Bay Area with respect to the national and state ambient air quality standards for different criteria pollutants.

Table 3.7-2: Attainment Status of the Bay Area for State and National Ambient Air Quality Standards

Pollutant	Averaging Time	Attainment Status	
		State Standards ¹	National Standards ²
Ozone	8 Hours	Unclassified	Nonattainment ³
	1 Hour	Nonattainment	---
Carbon Monoxide	8 Hours	Attainment	Attainment ⁴
	1 Hour	Attainment	Attainment
Nitrogen Dioxide	Annual Average	---	Attainment
	1 Hour	Attainment	---
Sulfur Dioxide	Annual Average	---	Attainment
	24 Hours	Attainment	Attainment
	1 Hour	Attainment	---
Respirable Particulate Matter (PM-10)	Annual Arithmetic Mean	Nonattainment ⁵	Attainment
	24 Hours	Nonattainment ⁵	Unclassified
Fine Particulate Matter (PM-2.5)	Annual Arithmetic Mean	Nonattainment ⁵	Attainment
	24 Hours	---	Attainment
Lead	Calendar Quarter	---	Attainment

Table 3.7-2: Attainment Status of the Bay Area for State and National Ambient Air Quality Standards

Pollutant	Averaging Time	Attainment Status	
		State Standards ¹	National Standards ²
	30 Day Average	Attainment	---
15.	California Standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM-10 are values that are not to be exceeded.		
16.	National standards other than for ozone and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year.		
17.	In June 2004, the Bay Area was designated as a marginal nonattainment area for the national 8-hour standard.		
18.	In April 1998, the Bay Area was redesignated to attainment for the national 8-hour carbon monoxide standard.		
19.	Based on new annual standards for PM-10 and PM-2.5 established by CARB in June 2002.		

Source: Bay Area Air Quality Management District, 2006a.

Air Quality Plans

The 1977 Clean Air Act Amendments require that regional planning and air pollution control agencies prepare a regional Air Quality Plan to outline the measures by which both stationary and mobile sources of pollutants can be controlled in order to achieve all standards specified in the Clean Air Act. The 1988 California Clean Air Act also requires development of air quality plans and strategies to meet state air quality standards in areas designated as nonattainment (with the exception of areas designated as nonattainment for the state PM standards). Maintenance plans are required for attainment areas that had previously been designated nonattainment in order to ensure continued attainment of the standards. Air quality plans developed to meet federal requirements are referred to as State Implementation Plans.

Bay Area plans are prepared with the cooperation of the Metropolitan Transportation Commission (MTC), and the Association of Bay Area Governments (ABAG). Currently, there are three plans for the Bay Area, These are:

- The *Ozone Attainment Plan for the 1-Hour National Ozone Standard* (ABAG, 2001) developed to meet federal ozone air quality planning requirements
- The recently adopted *Bay Area 2005 Ozone Strategy* (BAAQMD, 2006b) developed to meet planning requirements related to the state ozone standard; and
- The *1996 Carbon Monoxide Redesignation Request and Maintenance Plan for Ten Federal Planning Areas*, developed by the air districts with jurisdiction over the ten planning areas including the BAAQMD to ensure continued attainment of the federal carbon monoxide standard. In June 1998, the EPA approved this plan and designated the ten areas as attainment. The maintenance plan was revised most recently in 2004.

The Bay Area 2001 Ozone Attainment Plan was prepared as a proposed revision to the Bay Area part of California’s plan to achieve the national ozone standard. The plan was prepared in response to US EPA’s partial approval and partial disapproval of the Bay Area’s 1999 Ozone Attainment Plan and finding of failure to attain the national ambient air quality standard for ozone. The Revised Plan was adopted by the Boards of the co-lead agencies at a public meeting and approved by the ARB in 2001. In July 2003, EPA signed a rulemaking proposing to approve

the Plan. EPA also made an interim final determination that the Plan corrects deficiencies identified in the 1999 Plan. Following three years of low ozone levels (2001, 2002 and 2003), in October 2003, EPA proposed a finding that the Bay Area had attained the national one-hour standard and that certain elements of the 2001 Plan (attainment demonstration, contingency measures and reasonable further progress) were no longer required. In April 2004, EPA finalized the finding that the Bay Area had attained the one-hour standard and approved the remaining applicable elements of the 2001 Plan: emission inventory; control measure commitments; motor vehicle emission budgets; reasonably available control measures; and commitments to further study measures.

EPA recently transitioned from the national one-hour standard to a more health protective 8-hour standard. Defined as “concentration-based,” the new national ozone standard is set at 85 parts per billion averaged over eight hours. The new national 8-hour standard is considered to be more health protective because it protects against effects that occur with longer exposure to lower ozone concentrations. In April 2004, EPA designated regions as attainment and nonattainment areas for the 8-hour standard. These designations took effect on June 15, 2004. EPA formally designated the Bay Area as a nonattainment area for the national 8-hour ozone standard, and classified the region as “marginal” according to five classes of nonattainment areas for ozone, which range from marginal to extreme. Marginal nonattainment areas must attain the national 8-hour ozone standard by June 15, 2007. While certain elements of Phase 1 of the 8-hour implementation rule are still undergoing legal challenge, EPA signed Phase 2 of the 8-hour implementation rule on November 9, 2005. It is not currently anticipated that marginal areas will be required to prepare attainment demonstrations for the 8-hour standard. Other planning elements may be required. The Bay Area plans to address all requirements of the national 8-hour standard in subsequent documents.

For state air quality planning purposes, the Bay Area is classified as a serious non-attainment area for ozone. The “serious” classification triggers various plan submittal requirements and transportation performance standards. One such requirement is that the Bay Area update the Clean Air Plan (CAP) every three years to reflect progress in meeting the air quality standards and to incorporate new information regarding the feasibility of control measures and new emission inventory data. The Bay Area’s record of progress in implementing previous measures must also be reviewed. On January 4, 2006, the BAAQMD adopted the most recent revision to the CAP - the *Bay Area 2005 Ozone Strategy*. The control strategy for the 2005 Ozone Strategy is to implement all feasible measures on an expeditious schedule in order to reduce emissions of ozone precursors and consequently reduce ozone levels in the Bay Area and transport to downwind regions.

In April 2005, CARB established a new eight-hour average ozone standard of 0.070 ppm. The new standard recently took effect in May 2006. CARB is currently working on designations and implementation guidance for the new standard. The one-hour state standard has been retained. The San Francisco Bay Area has been designated as “unclassified” with respect to the state eight-hour standard and will be taking action as necessary to address its status as appropriate once the planning requirements have been established.

Local Standards

BAAQMD Rules and Regulations

The BAAQMD is the regional agency responsible for rulemaking, permitting, and enforcement activities affecting stationary sources in the Bay Area. Specific rules and regulations adopted by the BAAQMD limit the emissions that can be generated by various uses and/or activities, and identify specific pollution reduction measures that must be implemented in association with various uses and activities. These rules regulate not only emissions of the six criteria air pollutants, but also toxic emissions and acutely hazardous non-radioactive materials emissions.

Emissions sources subject to these rules are regulated through the BAAQMD's permitting process and standards of operation. Through this permitting process, including an annual permit review, the BAAQMD monitors generation of stationary emissions and uses this information to develop its air quality plans. Any sources of stationary emissions constructed as part of the proposed project would be subject to the *BAAQMD Rules and Regulations*. Both federal and state ozone plans rely heavily upon stationary source control measures set forth in *BAAQMD's Rules and Regulations*.

New Source Review

The BAAQMD's New Source Review regulations predominantly apply to non-attainment pollutants. The purpose of the New Source Review rule is to provide for the review of new and modified sources. It requires mechanisms, such as the use of best available control technology, and emissions offsets. The New Source Review regulations also include Prevention of Significant Deterioration (PSD) rules for attainment pollutants. PSD rules are designed to ensure that the emission sources will not cause or interfere with the attainment or maintenance of ambient air quality standards.

Best available control technologies are required for new or modified sources that require an authority to construct or a permit to operate if emissions would exceed 10 pounds or more per day of any of a number of certain organic compounds, nitrogen oxides, sulfur dioxide, particulate matter, carbon monoxide, or possibly lesser amounts of toxic air contaminants. The BAAQMD New Source Review regulation requires the purchase of emission "offsets" (effectively precluding other emissions from occurring) for any new or modified source that produces a cumulative increase in emissions above a certain level of nitrogen oxides, precursor organic compounds.

During the construction phase of the project, applicable BAAQMD regulations apply to portable equipment (e.g., Portland concrete batch plants, and gasoline- or diesel-powered engines used for power generation, pumps, compressors, pile drivers, and cranes), architectural coatings, and paving materials. Equipment used during project construction would be subject to the requirements of BAAQMD Regulation 2 (Permits), Rule 1 (General Requirements) with respect to portable equipment unless exempt under Rule 2-1-105 (Exemption, Registered Statewide Portable Equipment); BAAQMD Regulation 8 (Organic Compounds), Rule 3 (Architectural Coatings); and BAAQMD Regulation 8 (Organic Compounds), Rule 15 (Emulsified and Liquid Asphalts). During the operational phase of the project, BAAQMD

Regulation 2, *Permits*, would apply to sources in the central utility plant proposed as part of the project.

PHYSICAL SETTING

Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. The proposed Castro Valley Planning Area includes approximately 38 square miles of urbanized land area in the unincorporated community of Castro Valley, located within the boundaries of the San Francisco Bay Area (Bay Area) Air Basin. The Bay Area Air Basin encompasses the nine-county region including all of Alameda, Contra Costa, Santa Clara, San Francisco, Marin and Napa Counties and the southern portions of Solano and Sonoma Counties.

The climate of the Bay Area is determined largely by a high-pressure system that is almost always present over the eastern Pacific Ocean off the West Coast of North America. During winter, the Pacific high-pressure system shifts southward, allowing storms to pass through the region. During summer and fall, abundant sunshine and subsidence inversions combined with the restraining influences of topography create conditions that are conducive to the formation of photochemical pollutants and secondary particulates.

Existing Air Quality

Criteria Air Pollutants

The BAAQMD and CARB operate a regional monitoring network that measures the ambient concentrations of the six criteria air pollutants. Existing and probable future levels of air quality in Castro Valley can generally be inferred from ambient air quality measurements conducted by the BAAQMD at its nearby monitoring stations. There are no monitoring stations located within Castro Valley. The station at San Leandro County Hospital is nearest to the planning area (located to the west of the planning area) and can be considered to be representative of the air quality in the planning area. This station monitors 1-hour and 8-hour ozone concentrations. Table 3.7-3 shows a five-year summary of monitoring data for ozone from this station and compares these measured concentrations with state and federal ambient air quality standards. Ozone data is also provided for the La Mesa Station in Hayward, which is located to the south of Castro Valley. There is no BAAQMD or CARB station that monitors carbon monoxide and PM concentrations that can be considered to be representative of concentrations in the Castro Valley planning area. Since both carbon monoxide and particulate matter are local pollutants, data from the Fremont Chapel Hill station (located approximately 20 miles south of the planning area) or the Livermore station (located approximately 18 miles east of the planning area) would not be considered representative of actual concentrations within the planning area. Table 3.7-4 shows trends in regional exceedances of the federal and state ozone standards. Because of the number of exceedances, ozone is the pollutant of greatest concern in the Bay Area. Bay Area counties experience most ozone exceedances during the period from April through October.

Based on the data shown in Table 3.7-3, the state's one-hour ozone standard per year has been exceeded, on the average, only once a year over the last five years. During the same five-year period, neither station recorded levels that exceeded the national standard. The 8-hour ozone

standard has been exceeded twice over the last five years at the La Mesa station in Hayward but there have been no exceedances at the San Leandro station.

Motor vehicle transportation, including automobiles, trucks, transit buses, and other modes of transportation, is the major source of regional air pollution. Stationary sources were once important contributors to both regional and local pollution. Their role has been substantially reduced in recent years by pollution control programs, such as those of the BAAQMD. Any further progress in air quality improvement now focuses heavily on transportation sources.

The principal sources of ozone precursors ROG and NOx in the Bay Area include on-road motor vehicles (approximately 39 percent for ROG and 52 percent for NOx), other mobile sources (approximately 17 percent for ROG and 34 percent for NOx), solvent evaporation (approximately 20 percent for ROG), fuel combustion (approximately 9 percent NOx) and oil and gas production (approximately 9 percent for ROG). Bay Area emissions of the ozone precursors ROG and NOx are expected to decrease by approximately 24 and 36 percent, respectively, between 2005 and 2020 largely as a result of the State's on-road motor vehicle emission control program (California Air Resources Board, 2006c).

These projected reductions are based on an increased number of vehicles meeting more stringent emission standards entering the fleet, the use of cleaner burning gasoline by all vehicles, and the increased use of diesel or alternative fuels. Reductions would also result from the use of improved evaporative emission control systems, computerized fuel injection, engine management systems, cleaner gasoline and the Smog Check program. ROG and NOx emissions from other mobile and stationary sources are also projected to decline as more stringent emission standards and control technologies are adopted and implemented.

Table 3.7-3: Ozone Air Quality Data Summary (2001 – 2005) for the Project Area

Pollutant	Standard ¹	Monitoring Data by Year				
		2001	2002	2003	2004	2005
Ozone – La Mesa Station, Hayward						
Highest 1 Hour Average (ppm) ²		0.103	0.093	0.116	0.088	0.093
Days over State Standard	0.09	2	0	3	0	0
Days over National Standard	0.12	0	0	0	0	0
Highest 8 Hour Average (ppm) ²		0.089	0.07	0.092	0.07	0.07
Days over National Standard	0.08	1	0	1	0	0
Ozone – County Hospital Station, San Leandro						
Highest 1 Hour Average (ppm) ²		0.093	0.101	0.097	0.104	0.099
Days over State Standard	0.09	0	1	2	1	1
Days over National Standard		0	0	0	0	0
Highest 8 Hour Average (ppm) ²		0.056	0.061	0.071	0.066	0.061
Days over National Standard	0.08	0	0	0	0	0

Table 3.7-3: Ozone Air Quality Data Summary (2001 – 2005) for the Project Area

Pollutant	Standard ¹	Monitoring Data by Year				
		2001	2002	2003	2004	2005
1.	Generally, State standards are not to be exceeded and national standards are not to be exceeded more than once per year.					
2.	ppm = parts per million; $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.					

Note: Values in **bold** are in excess of applicable standard.

Source: California Air Resources Board, 2006b.

Table 3.7-4 Summary of Ozone Data for the San Francisco Bay Area Air Basin, 1996 - 2005

Year	Number of Days Standard Exceeded ¹			Ozone Concentrations in ppm^2	
	State 1 hr	Federal 1 hr	Federal 8 hr	Maximum 1 hr	Maximum 8 hr
2005	9	0	1	0.12	0.09
2004	7	0	0	0.11	0.084
2003	19	1	7	0.13	0.101
2002	16	2	7	0.16	0.106
2001	15	1	7	0.13	0.100
2000	12	3	9	0.15	0.144
1999	20	3	4	0.16	0.122
1998	29	8	16	0.15	0.111
1997	8	0	0	0.11	0.084
1996	34	8	14	0.14	0.112

1. This table summarizes the data from all of the monitoring stations within the Bay Area.

2. ppm = parts per million.

Source: Bay Area Air Quality Management District, 2006c.

The Bay Area has been in attainment and has not experienced any exceedances of state and federal ambient carbon monoxide standards in the last five years. Currently, on-road motor vehicles are responsible for approximately 69 percent of the carbon monoxide emitted within the San Francisco Bay Area and Alameda County (California Air Resources Board, 2006c). Carbon monoxide emissions are expected to decrease within the county by approximately 42 percent between 2005 and 2020 due to attrition of older, high polluting vehicles, improvements in the overall automobile fleet, and improved fuel mixtures (California Air Resources Board, 2006c).

The Bay Area does experience exceedances of the state PM-10 and PM-2.5 standards on a fairly regular basis. However, site-specific information on particulate matter concentrations in the planning area is not available. Contributors to PM concentrations in the project area are primarily urban sources, such as dust suspended by vehicle traffic, and secondary aerosols formed by reactions in the atmosphere. Particulate concentrations near residential sources generally are higher during the winter, when more fireplaces are in use and meteorological

conditions prevent the dispersion of directly emitted contaminants. Direct PM-10 emissions in Alameda County are expected to increase by approximately 19 percent between 2005 and 2020 (California Air Resources Board, 2006c). This increase would be primarily fugitive dust from increased vehicle miles traveled (VMT) as well as additional stationary sources (such as industrial activities) and area sources (such as construction and demolition, road dust and other miscellaneous processes). Fugitive dust refers to particulate matter not emitted from a duct, tailpipe or stack, which becomes airborne due to the forces of wind, man's activity, or both. Activities that generate fugitive dust include vehicle travel over paved and unpaved roads, brake wear, tire wear, soil cultivation, off-road vehicles, any vehicles operating on open fields or dirt roadways, or wind erosion of exposed surfaces, storage piles at construction sites, etc. PM-2.5 emissions in Alameda County are projected to remain steady over the same period (California Air Resources Board, 2006c), as the reduction in emissions from on-road and off-road engines would be offset by an increase in their activity and also an increase in industrial growth.

The national and state standards for nitrogen dioxide, sulfur dioxide, and lead are being met in the Bay Area, and the latest pollutant trends suggest that these standards will not be exceeded in the foreseeable future (ABAG, 2001).

Toxic Air Contaminants (TACs)

The ambient background of TACs is the combined result of many diverse human activities, including gasoline stations, automobiles, dry cleaners, industrial operations, hospital sterilizers, and painting operations. In general, mobile sources contribute more significantly to health risks than do stationary sources. Both BAAQMD and CARB operate a network of monitoring stations that measure ambient concentrations of certain TACs that are associated with strong health-related effects and are present in appreciable concentrations in the Bay Area, as in all urban areas. Ambient concentrations of TACs are similar throughout the urbanized areas of the Bay Area.

Of the pollutants for which monitoring data are available, benzene and 1,3-butadiene (which are emitted primarily from motor vehicles) account for over one half of the average calculated cancer risk (BAAQMD, 2004). Benzene levels have declined dramatically since 1996 with the advent of Phase 2 reformulated gasoline. The use of reformulated gasoline also appears to have led to significant decreases in 1,3-butadiene. Due largely to these observed reductions in ambient benzene and 1,3-butadiene levels, the calculated network average cancer risk has been significantly reduced in recent years. Based on 2002 ambient monitoring data, the BAAQMD reported a calculated lifetime cancer risk from measured concentrations of TACs, excluding diesel particulate matter, to be 162 in one million averaged over all Bay Area locations (BAAQMD, 2004). This is 46 percent less than what was observed in 1995 (BAAQMD, 2004).

Because diesel particulate matter can not be directly monitored in the ambient air, the BAAQMD uses California Air Resources Board's estimates of the population-weighted average ambient diesel particulate concentration for the Bay Area to derive an average cancer risk from diesel particulate matter exposure at about 480 in-one-million, as of 2000 (CARB, 2006d). The risk from diesel particulate matter has reduced from 750 in-one-million in 1990 and 570 in-one-million in 1995 (CARB, 2006d).

Sensitive Land Uses

Some persons are considered more sensitive than others to air pollutants. The reasons for heightened sensitivity may include health problems, proximity to the emissions source, and duration of exposure to air pollutants. Land uses such as schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because the very young, the old, and the infirm are more susceptible to respiratory infections and other air-quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people are often at home for extended periods. Recreational land uses are moderately sensitive to air pollution, because vigorous exercise associated with recreation places a high demand on the human respiratory system.

The California Air Resources Board recommends against locating sensitive uses within 500 feet of a freeway. This recommendation is based on a number of studies that identify an association with respiratory symptoms, asthma exacerbation, and decreases in lung function in children living near a freeway.³² In traffic-related studies, the health risk attributable to proximity was seen within 1000 feet and was strongest within 300 feet. California freeway studies show a decline of about 70 percent in particulate pollution levels at 500 feet.³³

Alameda County Planning Department

The 1985 Castro Valley General Plan includes the following principle that supports several General Development Policies and that applies to air quality:

- Air Quality Principle 3.7: Uses and activities producing air pollutants which would result in unacceptable health conditions should be prohibited. (Alameda County, 1985)

IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

The proposed General Plan would have a significant effect on the environment with respect to air quality if it would:

- conflict with or obstruct implementation of the applicable air quality plan;
- violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- result in a cumulatively considerable net increase of any nonattainment pollutant;
- expose sensitive receptors to substantial pollutant concentrations; or
- create objectionable odors affecting a substantial number of people.

³² California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005.

³³ "Highways bad for children's lungs," *San Francisco Chronicle*, January 26, 2007.

METHODOLOGY & ASSUMPTIONS

The methodology recommended by the *BAAQMD CEQA Guidelines* has been used in evaluating impacts.

- Construction emissions are discussed qualitatively according to the BAAQMD CEQA Guidelines.
- The proposed General Plan's consistency with the *2005 Bay Area Ozone Strategy* is discussed by comparing projections of population and vehicle miles traveled (VMT) under build-out of the General Plan in 2025 to those assumed in the 2005 Ozone Strategy.
- Localized carbon monoxide impacts at intersections within the planning area have been estimated using the BAAQMD's methodology for manual calculation of CO concentrations and compared to the ambient air quality standard.

SUMMARY OF IMPACTS

Air quality impacts resulting from the implementation of the proposed General Plan fall into two categories: short-term impacts due to construction and long-term operational impacts due to operation. Construction activities would affect local particulate concentrations primarily due to fugitive dust sources and increase other criteria pollutant emissions from equipment exhaust.

Over the long term, the full implementation of the proposed General Plan would result in an increase in criteria pollutant emissions primarily due to related motor vehicle trips. Stationary sources and area sources would also result in criteria pollutant emissions but to a lesser extent. Stationary sources and diesel-fueled mobile sources would also emit TACs including diesel particulate matter that could pose a health risk.

IMPACTS AND MITIGATION MEASURES

Construction Period Impacts

- 3.7-1 Construction and demolition activities associated with new development under the proposed General Plan would generate and expose sensitive receptors to short-term emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions. (*Less than Significant*)

Construction activities would occur intermittently at different sites in the Plan area throughout implementation of the proposed General Plan. Although the related impacts at any one location in the Plan area would be temporary, construction of individual projects could cause adverse effects on the local air quality within the Plan area. Construction activities would generate substantial amounts of dust (including PM-10 and PM-2.5) primarily from fugitive sources (i.e., emissions released through means other than through a stack or tailpipe) and lesser amounts of other criteria air pollutants primarily from operation of heavy equipment construction machinery (primarily diesel operated) and construction worker automobile trips (primarily gasoline operated).

Fugitive dust emissions would vary from day to day, depending on the level and type of activity, silt content of the soil, and the prevailing weather. Sources of fugitive dust during construction would include vehicle movement over paved and unpaved surfaces, demolition, excavation, earth movement, grading, and wind erosion from exposed surfaces. In the absence of mitigation, construction activities may result in significant quantities of dust, and as a result, local visibility and PM-10 concentrations may be adversely affected on a temporary and intermittent basis during the construction period. In addition, the fugitive dust generated by construction would include larger particles that would fall out of the atmosphere within several hundred feet of a development site and could result in nuisance impacts. Demolition of buildings constructed prior to 1980 often involves hazardous materials such as asbestos used in insulation, fire retardants, or building materials (floor tile, roofing, etc.) and lead-based paint. Airborne asbestos fibers and lead dust pose a serious health threat. The demolition, renovation and removal of asbestos-containing building materials would be subject to the requirements of BAAQMD Regulation 11, Rule 2.

The BAAQMD's approach to analyzing construction impacts is to emphasize implementation of effective and comprehensive control measures rather than detailed quantification of emissions. The BAAQMD considers a project's construction-related impacts to be less than significant if the required dust-control measures are implemented.

Construction activities would also result in the emission of other criteria pollutants from equipment exhaust, construction-related vehicular activity and construction worker automobile trips. Emission levels for construction activities would vary depending on the number and type of equipment, duration of use, operation schedules, and the number of construction workers. Criteria pollutant emissions of ROG and NO_x from these emission sources would incrementally add to the regional atmospheric loading of ozone precursors during project construction. BAAQMD CEQA Guidelines recognize that construction equipment emit ozone precursors, but indicate that such emissions are included in the emission inventory that is the basis for regional air quality plans. Therefore, with the implementation of the BAAQMD guidelines and measures, construction emissions are not expected to impede attainment or maintenance of ozone standards in the Bay Area (BAAQMD, 1999). The impact would therefore be less than significant.

Proposed Castro Valley General Plan Policies that Further Reduce the Impact

The following proposed policy and action would further reduce the less-than-significant impacts from construction activities:

Policy 11.2-5 Reduce combustion emissions and release of suspended and inhalable particulate matter during construction and demolition phases.

Action 11.2-5 Require sponsors of individual development projects requiring site development and/or environmental review to implement the BAAQMD's approach to dust abatement through conditions of approval. This calls for "basic" control measures that should be implemented at all construction sites, "enhanced" control measures that should be implemented in addition to the basic control measures at construction sites greater than four acres in area, and "optional" control measures that should be implemented on a case-by-case basis at construction sites that are

large in area, located near sensitive receptors or which, for any other reason, may warrant additional emissions reductions (BAAQMD, 1999).

Mitigation Measures

No mitigation measures are required.

Impact Regarding Consistency with the Regional Air Quality Plan

3.7-2 Development under the proposed General Plan would be consistent with the population and vehicle miles traveled (VMT) assumptions used in the regional air quality plan. (*Less than Significant*)

Air pollutant emissions are a function of human activity. If growth in population is greater than assumed in the CAP emission inventory, then population-based emissions are also likely to be greater than assumed in the CAP. Consequently attainment of the State air quality standards would be delayed. Therefore, plans showing estimated population greater than that assumed in the ABAG Projections would be inconsistent with air quality planning and have a significant impact.

Development under the proposed General Plan would result in increases in population and employment and consequently an increase in traffic and air pollutant emissions. With respect to the BAAQMD Guidelines for determining air quality impacts, the impact analysis must determine consistency of a proposed plan or plan amendment with the population and VMT assumptions in the applicable regional air quality plan, which in this case is the *2005 Bay Area Ozone Strategy*. In forecasting future stationary and mobile source emissions and preparing the regional air quality plan, the BAAQMD uses growth projections prepared by ABAG. The resultant emissions forecasts are then used to develop strategies and control measures necessary to achieve regional ozone attainment within a designated timeframe. In developing its projections, ABAG uses information from local government general plans, current zoning and other local development policies, in conjunction with economic and demographic factors. Consistent with this process, the ABAG estimates for Castro Valley use the development anticipated under the applicable General Plan, zoning, and existing policies at the time of preparation of the projections.

For the proposed General Plan to be consistent with population and VMT assumptions used in regional air quality planning, the plan must show that over the planning period:

- a) Population growth for the jurisdiction will not exceed the values included in the current Clean Air Plan, and
- b) The rate of increase in VMT for the jurisdiction is equal to or lower than the rate of increase in population.

The proposed General Plan anticipates that the population in Castro Valley will increase from 60,200 in 2005 to 64,935 in 2025. This represents a growth rate of 0.39 percent per year. The *2005 Bay Area Ozone Strategy* is based on population assumptions in the 2003 ABAG Projections. ABAG provides population projections for all unincorporated communities in a

county together and does not break down projections for different unincorporated communities such as Castro Valley. Therefore, the rate of increase in population under the proposed General Plan has been compared to the rate of increase in population projected for all unincorporated areas in Alameda County in the 2003 Projections. The 2003 ABAG Projections projected that the population in unincorporated areas of Alameda County would grow from 148,100 in 2005 to 164,300 in 2025 at a rate of population growth of 0.55 percent per year between 2005 and 2030 (ABAG, 2003). The projected .39 percent annual increase in population anticipated with implementation of the proposed Castro Valley General Plan would, therefore, be consistent with ABAG's 2003 population projections. Based on the analysis of the proposed Plan's traffic impacts (see Section 3.4), development under the proposed General Plan would generate lower VMT than the development assumed under the existing General Plan (i.e. the No Project scenario), which was the basis for the 2003 ABAG Projections, and subsequently, the 2005 Ozone Strategy. Therefore, it can be concluded that the proposed General Plan would also be consistent with the VMT assumptions in the 2005 Ozone Strategy and the proposed Castro Valley General Plan would be consistent with regional air quality planning.

While this analysis is based on assumed development and activity that could occur under the proposed General Plan, individual projects that may be proposed in the future within the Plan area could be required to undergo project-level environmental review to determine whether further air quality impacts specific to the individual project's location, phasing and characteristics, and any significant impacts identified would be mitigated to a less than significant level to the extent feasible.

Proposed Castro Valley General Plan Policies that Further Reduce the Impact

The following proposed policies would further reduce the less-than-significant potential air pollution emissions.

Air Quality Policies and Actions:

Policy 11.2-1 Promote pedestrian, bicycle, and transit modes of travel to reduce air pollutant emissions from automobiles. (Action Steps for this policy are located in Chapter 6 – Transportation.)

Policy 11.2-2 Promote land use mixes and development densities that encourage pedestrian, bicycle and transit modes of travel to reduce air pollutant emissions from automobiles. (Action Steps for this policy are located in Chapter 4 - land and Community Development.)

Action 11.2-1 In environmental review documents analyzing air quality, comply with the Regional Air Quality Plan's assumptions used for population and vehicle miles traveled and be consistent with the Clean Plan Transportation Control Measures.

Action 11.2-2 Cooperate with the Bay Area Air Quality Management District in the review of land use proposals. Provide input and assistance to the Bay Area Air Quality

Management District's development and implementation of regional air quality strategies.

Transportation Policies and Actions:

Policy 6.1-3 Make land use decisions that promote a multi-modal transportation system and reduce reliance on the private automobile. Allow higher density development near transit and mixed use.

Policy 6.1-4 Balance the needs of all four circulation modes – automobile, transit, bike and pedestrian when making decisions about transportation improvements and allocation of public right of way.

Action 6.1-4 Establish an infill opportunity zone including all areas within one-third of a mile of the Castro Valley BART station that the General Plan designates for mixed use development or development at a density of 24 or more units per acre as provided for in State law. Develop an alternative multimodal composite level of service standard or approved list of flexible level of service mitigation options that would apply within the infill opportunity zone.

Action 6.1-5 Work with the Eden Medical Center, the Castro Valley Unified School District, and other major Castro Valley employers as well as small businesses to promote adoption of staggered working hours, compressed workweek, home-based telecommuting, car-pooling, use of transit, and bicycling to employment centers within Castro Valley to reduce traffic congestion especially during peak hours.

Policy 6.2-1 Work with the Alameda County Congestion Management Agency, the County Transportation Authority, the Metropolitan Transportation Commission, Caltrans, and surrounding jurisdictions to develop and implement regional solutions to local traffic problems created by growth outside of Castro Valley.

Policy 6.3-1 Protect resident, pedestrian, and bicyclist safety by calming traffic, focusing on residential streets where traffic frequently exceeds the speed limit.

Policy 6.4-1 Promote transit use and reduce reliance on the private automobile in order to reduce congestion, improve air quality, and improve the quality of life in Castro Valley.

Action 6.4-1 Advocate for and support regional, state, and national policies and programs that will encourage increased transit use by subsidizing transit fares, operations, and capital improvements and providing a more stable operating budget for transit agencies.

Action 6.4-2 Work with AC Transit, BART, the Castro Valley and Hayward School Districts, other major employers, colleges, and Alameda County cities to establish a transit pass program for employees of major Alameda County businesses and students at Cal State East Bay, the Peralta Colleges and other large institutions.

- Action 6.4-3** Review existing bus routes in Castro Valley for opportunities to improve service to higher density residential areas as well as employment centers.
- Action 6.4-4** Coordinate with BART and Transit to facilitate safe, efficient, and convenient access to transit stations and bus stops.
- Action 6.4-8** Require participation in the existing Commuter Check program as a standard condition of approval for new large scale non-residential projects.
- Action 6.4-9** Encourage establishment of Transportation Demand Management (TDM) programs at new or expanded large-scale employment sites and shopping centers, including provision of preferential carpool parking and car share programs, bicycle lockers, BART shuttles, and other transit connection services.
- Action 6.4-10** Work with homeowners' associations and neighborhood groups in Palomares Hills, Five Canyons, and other large residential developments to establish shuttle services to BART or initiate other feasible measures to promote alternatives to driving alone such as car-pooling and shuttle services to major employment centers, commercial areas and transit areas.
- Action 6.4-11** As part of development project review, encourage preferential parking measures for carpool and vanpool vehicles, guaranteed ride home services and other incentives to employees choosing transportation modes other than driving.
- Action 6.4-12** Consider requiring large employers with over 200 employees, or large scale new development over 100,000 square feet, to contribute to the cost of providing shuttle service from central employment locations to BART.
- Action 6.4-13** Establish a shuttle service for employees and patients between Eden Medical Center and the Castro Valley BART station.
- Action 6.4-15** Promote regional and local ridesharing organizations and advocate legislation to maintain and expand incentives for transit use such as tax deductions and tax credits.
- Policy 6.5-1** Provide a system of bikeways in Castro Valley that is coordinated with existing and planned facilities in adjoining communities as well as other transportation routes and facilities serving the community.
- Action 6.5-3** Amend the County zoning ordinance to include regulations regarding the provision of bicycle and pedestrian facilities such as weather protected bicycle parking, direct and safe access for pedestrians and bicyclists to adjacent bicycle routes and transit stations, secure short-term parking for bicycles, and to the extent feasible encourage provision of showers and lockers for employees at worksites.

Policy 6.6-1 I Implement the Alameda County Pedestrian Master Plan for Unincorporated Areas policies and actions for enhanced pedestrian environments in Castro Valley.

Land Use and Community Development Policies and Actions:

Policy 4.5-3 Allow residential uses on neighborhood commercial sites if neighborhood-serving commercial or civic uses (such as day care) are maintained on the ground floor. Allow townhouses, condominiums or apartments at a density of 15-20 units per net acre at a scale of up to three stories

Action 4.5-1 In designated neighborhood commercial areas, revise zoning to allow mixed-use development that includes housing, with ground floor uses fronting on arterials or collectors restricted to neighborhood commercial and civic uses.

Action 4.7-1 Complete a streetscape improvement project on Castro Valley Boulevard that adds traffic calming measures, street trees, street furniture, lights, banners, medians, bulb-outs and other such features to make it a beautiful boulevard. Widen sidewalks to improve the pedestrian experience. Add bulb-outs and/or island (mid-intersection) safety zones to improve pedestrian safety and comfort at crossings and provide areas for community interaction at street corners.

Policy 4.7-7 Cluster retail and services to create sub-districts with a strong identity where people can easily walk from one business to the other. Cluster related businesses so they attract a greater customer base than any one business can attract on their own. Examples include clustering cinema with restaurants, or a grocery store with other small shops and personal services.

Policy 4.7-8 Work with BART on joint development of the BART Station site to add housing, office and retail uses in addition to structured parking on the BART parking lots.

Policy 4.7-9 Create additional housing, including apartments, condominiums, and live-work, in and within walking distance of the Central Business District. Over time, convert existing mobile home parks into new residential and mixed-use development, and make best efforts to include housing units affordable to existing residents of mobile home parks.

Additional residents in downtown will support businesses and services there, take advantage of BART and bus transit service, and reduce the demand for development in outlying areas of the community with environmental or other development constraints.

Policy 4.9-8 Regulate general commercial and auto-reliant uses to minimize noise, odors, dust, and traffic impacts.

Mitigation Measures

No mitigation measures are required.

Impact Regarding Consistency with the Regional Air Quality Plan

3.7-3 The proposed General Plan would be consistent with the Clean Air Plan Transportation Control Measures (TCMs). (*Less than Significant*)

The 1988 California Clean Air Act, Section 40919(d) requires regions to implement “transportation control measures to substantially reduce the rate of increase in passenger vehicle trips and miles traveled.” Consistent with this requirement, a primary goal of the Clean Air Plan, the *Bay Area 2005 Ozone Strategy*, is to reduce the number of trips and vehicle miles Bay Area residents travel in single-occupant vehicles through the implementation of nineteen TCMs. Table 3.7-5 identifies those TCMs that local governments should implement through local plans to be considered in conformance with the 2005 Ozone Strategy. The BAAQMD recommends that local plans that do not demonstrate reasonable efforts to implement these TCMs be considered inconsistent with the regional air quality plan and therefore to have a significant impact.

The proposed General Plan contains several policies listed under Impact 3.7-2 that serve to reduce trips through employer based programs, improve pedestrian and bicycle access and facilities, improve arterial traffic management to provide for a smooth and efficient flow of traffic and promote traffic calming measures to enhance the safety of pedestrians and bicyclists. Development in Castro Valley would be subject to these policies that are consistent with the TCMs in the 2005 Ozone Strategy. These policies encourage alternative modes of transportation such as use of transit, bicycling and walking; and mixed use development, a concept that places residential, commercial, industrial, and employment activities close to each other thereby reducing the commute distances of project area residents and residents in other parts of the community. Implementation of these policies would reduce adverse impacts associated with motor vehicle use, such as poor air quality, and promote use of transit and other modes of travel, such as bicycling and walking.

As the proposed General Plan includes goals and policies that help implement TCMs in the 2005 Ozone Strategy, the Plan would be consistent with the TCMs in the Strategy. The impact would be less than significant.

Table 3.7-5 CAP TCMs to be Implemented by Cities and Counties

<i>Transportation Control Measure</i>
TCM #1 – Support voluntary employer-based trip reduction programs
TCM #9 – Improve bicycle access and facilities
TCM #10 – Youth Transportation
TCM #12 – Arterial Management Measures
TCM #15 – Local land use planning and development strategies
TCM #19 – Improve pedestrian access and facilities
TCM #20 – Promote traffic calming measures

Source: ABAG, BAAQMD, MTC, January 2006.

Mitigation Measures

No mitigation measures are required.

Odor and TAC Impacts

Development pursuant to the proposed General Plan would allow a mix of residential and non-residential uses in the Plan area, as well as locate sensitive land uses (including residential) adjacent to major transportation corridors, which could result in odor and toxic emissions problems at sensitive receptors. (*Less than Significant*)

There is no existing or proposed industrial use in the Planning Area but development under the proposed General Plan could place residential and other sensitive receptors in proximity to non-residential uses, which could result in odor and toxics impacts. Though offensive odors from stationary sources rarely cause any physical harm, they still remain unpleasant and can lead to public distress generating citizen complaints to local governments. The occurrence and severity of odor impacts depend on the nature, frequency and intensity of the source; wind speed and direction; and the sensitivity of receptors. Odor impacts should be considered for any proposed new odor sources located near existing receptors, as well as any new sensitive receptors located near existing odor sources. Generally, increasing the distance between a receptor and the source to an acceptable level will mitigate odor impacts. Table 3.7-6 shows BAAQMD-recommended buffer zones (distance between receptor and source) for known odor-emitting sources.

Table 3.7-6 Buffer Zone Distances for Potential Odor Sources ^a

<i>Type of Operation</i>	<i>Buffer Zone</i>
Wastewater Treatment Plant	1 mile
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 mile
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shops)	1 mile
Rendering Plant	1 mile
Coffee Roaster	1 mile

^a Distances identified are project screening trigger levels for odor sources and projects within the buffer zone of any sources should be further analyzed.

Source: BAAQMD, 1999.

The proposed Plan calls for residential and mixed-use development in the Central Business District, which could introduce additional sensitive land uses (primarily residential and outdoor recreational land uses) closer to the I-580 corridor in areas where ambient

concentrations of TACs from mobile sources may occur, especially diesel particular matter from large truck traffic. However, as discussed in the *Regulatory Setting* of this section, the average calculated lifetime cancer risk from measured concentrations of TACs has reduced significantly over time due to reformulated gasoline (i.e., reduced from 750 in-one-million in 1990 and 570 in-one-million in 1995 [CARB, 2006d]) and is anticipated to have considerable future reductions given regulations on new trucks starting in 2007 and as older trucks are phased out. Therefore, impacts of the proposed Plan associated with odors and toxics are considered less than significant.

Some new development under the proposed General Plan could be subject to further CEQA review to evaluate project-level impacts of odors and toxic air contaminants and to avoid potential conflicts in land uses. Analysis of potential odor and toxics impacts conducted would include both the following situations: 1) sources of odorous/toxic emissions locating near existing sensitive receptors, and 2) receptors locating near existing odor/toxics sources. Impacts would be evaluated based on the project-level significance thresholds identified earlier in this section and any significant impacts would be mitigated to a less than significant level.

Proposed Castro Valley General Plan Policies that Further Reduce the Impact

In addition to Policy 4.9-8 listed above, following proposed policies would further reduce the less-than-significant potential odor and other nuisance impacts:

Policy 11.2-3 Protect sensitive receptors, including residential uses, schools, day care centers, parks with recreation facilities, and medical facilities, which are located within 1000 feet of the Interstate 580 corridors from air pollutants. Also consider the impacts of odors and toxic emissions on sensitive receptors.

Policy 11.2-4 Locate sensitive receptors at least 300 feet away, and ideally 500 feet away, from the edge of Interstate 580.

Action 11.2-3 Revise zoning to incorporate regulations limiting the location of sensitive receptors within 300 feet of Interstate 580.

Action 4.5-2 Update the list of permitted and conditional uses in the neighborhood commercial zoning district, and establish criteria for approval of conditional uses. Allow community and civic uses by right, subject to specific limitations and standards to ensure compatibility with residential development on the same site and in the surrounding area. Prohibit drive-in businesses, commercial parking lots, and other commercial uses that would be incompatible with the Plan's objectives and policies for neighborhood Commercial Centers.

Mitigation Measures

No mitigation measures are required.

Traffic Generated Localized Air Quality Impacts

Development under the proposed General Plan would increase traffic along some roadways in the Planning Area, which in turn could result in the exposure of sensitive receptors to substantial pollutant concentrations and localized air quality impacts. (*Less than Significant*)

Traffic generated by buildout of the proposed General Plan would have the potential to affect carbon monoxide concentrations along surface streets and near stagnation points such as major highways and heavily traveled and congested roadways. This increase in traffic would not only add more vehicles on the road but the increased congestion would cause existing non-project traffic to travel at slower, more polluting speeds. The BAAQMD's methodology for calculating CO concentrations was used to estimate the impact of Plan's traffic on existing and future carbon monoxide concentrations at the five intersections analyzed in the traffic study. These intersections are:

- Stanton – Norbridge Avenue at Castro Valley Boulevard;
- Lake Chabot Road at Castro Valley Boulevard;
- Redwood Road at Castro Valley Boulevard;
- Redwood Road at Norbridge Avenue; and
- Center Street at Grove Way.

If relatively high volumes of Plan-generated traffic at these intersections did not result in adverse impacts, impacts at other intersections in and around the planning area affected by project traffic to a lesser extent would be less substantial.

Results of the modeling effort are summarized in Table 3.7-7. The analysis indicates no violations of the ambient carbon monoxide standards at any of the five intersections under all three scenarios analyzed. Worst-case carbon monoxide concentrations in the vicinity of the intersections would be well below the State and federal ambient air quality standards.

The estimates correspond to a hypothetical location approximately 25 feet from each of the two roads. These estimates also include background one-hour-average concentrations of 3.7 parts per million (ppm) in 2005 and 3.5 ppm in 2025. Estimated eight-hour average concentrations include background values of 1.9 ppm in 2005 and 1.7 ppm in 2025. Background carbon monoxide concentrations used for 2025 are actually 2010 concentrations as the BAAQMD CEQA Guidelines does not provide data that extends to 2025. Therefore, actual background concentrations in 2025 will be lower than those shown in Table 3.7-7.

Background carbon monoxide levels are projected to be significantly lower in 2025 due to improvements in the automobile fleet, attrition of older, high-polluting vehicles, and improved fuel mixtures. Despite the addition of project and cumulative traffic, carbon monoxide concentrations at the intersections would decrease from existing to General Plan buildout conditions (2025). This would be due to the beneficial effects of ongoing State and federal vehicle emissions reductions programs, which are expected to continue to generate reductions in average vehicle emissions of carbon monoxide per vehicle-mile-traveled for the foreseeable

future. Therefore, the long-term increase in traffic due to the Plan would not violate any air quality standard or contribute to an existing or projected air quality violation in the project vicinity, and no mitigation for that effect is required. Thus Plan-related traffic would have a less-than-significant impact on local carbon monoxide concentrations.

Table 3.7-7 Estimated Carbon Monoxide Concentrations at Most Impacted Intersections in the Planning Area for the PM Peak Hour^{1,2}

<i>Intersection</i>	<i>Averaging Time (hours)</i>	<i>Existing (2005)</i>	<i>2025 No Project</i>	<i>2025 General Plan</i>
Stanton – Norbridge Avenue @ Castro Valley Boulevard	1 Hour	5.0	4.58	4.58
	8 Hour	2.76	2.51	2.51
Lake Chabot Road @ Castro Valley Boulevard	1 Hour	4.54	4.26	4.26
	8 Hour	2.44	2.29	2.28
Redwood Road @ Castro Valley Boulevard	1 Hour	5.2	4.58	4.58
	8 Hour	2.9	2.51	2.51
Redwood Road @ Norbridge Avenue	1 Hour	4.78	4.3	4.31
	8 Hour	2.6	2.32	2.32
Center Street @ Grove Way	1 Hour	5.26	4.67	4.67
	8 Hour	2.94	2.57	2.57

1. Concentrations relate to a location 25 feet from the edge of the roadways that form the intersection. The carbon monoxide analysis focuses on the weekday afternoon (p.m.) peak-hour because the project's effects on traffic congestion and related carbon monoxide concentrations are greater during that period than during the morning (a.m.) peak hour.
2. The California ambient air quality standard for carbon monoxide is 20 ppm, one-hour average and 9 ppm, eight-hour average.

Source: Environmental Science Associates, 2006.

Proposed Castro Valley General Plan Policies that Further Reduce the Impact

The following proposed policies would further reduce the less-than-significant impacts resulting from traffic-generated emissions:

- All draft policies identified under Impacts 3.7-2 and 3.7-4.

Mitigation Measures

No mitigation measures are required.

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3.8 Noise

This section describes the existing noise environment in Castro Valley, reviews applicable regulatory requirements, and evaluates the proposed General Plan's potential impacts. Potential impacts include changes that would increase the noise generation or noise exposure from existing or new sources.

ENVIRONMENTAL SETTING

Noise is commonly defined as a sound or series of sounds that are irritating, objectionable, and disruptive to sleep, speech, or other activity. Noises vary widely in their scope, source, and volume, ranging from individual occurrences such as leaf blowers, to the intermittent disturbances of overhead aircraft, to the fairly constant noise generated by traffic on freeways. Noise can have real effects on human health, including hearing loss and the psychological effects or irritability from lack of sleep. Noise is primarily a concern with regard to noise-sensitive uses such as residences, schools, churches, and hospitals.

PHYSICAL SETTING

Measuring Sound

Sound is generated by sound waves traveling outward from a source which exert a sound pressure level (commonly called "sound level") that is measured in decibels (dB). Environmental noise is usually measured in *A-weighted* decibels (dBA); a metric corrected for the variation in frequency response of the human ear. In general, people can perceive a two- to three-dB difference in noise levels; a difference of 10 dBA, which is actually ten times more intense, is perceived as a doubling of loudness. Typical sound levels are depicted in Figure 3.8-1.

The level of highway traffic noise depends on three factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and greater numbers of trucks. Vehicle noise is a combination of the noises produced by the engine, exhaust, and tires. The loudness of traffic noise can also be increased by defective mufflers or other faulty equipment on vehicles. Conditions that cause heavy laboring of motor vehicle engines, such as steep inclines, will also increase traffic noise levels. Trucks also generate wind noise. There are other more complicated factors that affect the loudness of traffic noise including distance from the highway, terrain, vegetation, and natural and structural obstacles. While tire noise from autos is generally located at ground level, truck noise sources can be located as high as ten to fifteen feet above the roadbed due to tall exhaust stacks and higher engines; sound walls are not effective for mitigating such noise unless they are very tall. Traffic noise is not usually a serious problem for people who live more than 500 feet from heavily traveled freeways or more than 100 to 200 feet from lightly traveled roads.³⁴

³⁴ <http://www.fhwa.dot.gov/environment/htnoise.htm>

Noise Sources in Castro Valley

The major existing noise sources in Castro Valley are transportation-related. Interstate 580 (I-580) is the primary source of roadway noise but major thoroughfares with higher speeds, traffic volumes, and truck usage also generate notable levels of noise. These roadways include Castro Valley Boulevard, Lake Chabot Road (north of Strobridge Ave), Grove Way (east of Center Street), and Redwood Road/"A" Street. BART trains also generate significant levels of noise, although for a short duration. Because the BART tracks in Castro Valley are located within the median of I-580, these noise sources affect the same areas. Depending on meteorological conditions, however, residents living some distance from BART may also hear trains.

Another noise source is the intermittent helicopter usage at Eden Medical Center. The Medical Center provides helicopter service for medical emergencies. The helistop, now located in the parking area northwest of the hospital, is used about two to three times a week for the transfer of critical need patients.³⁵

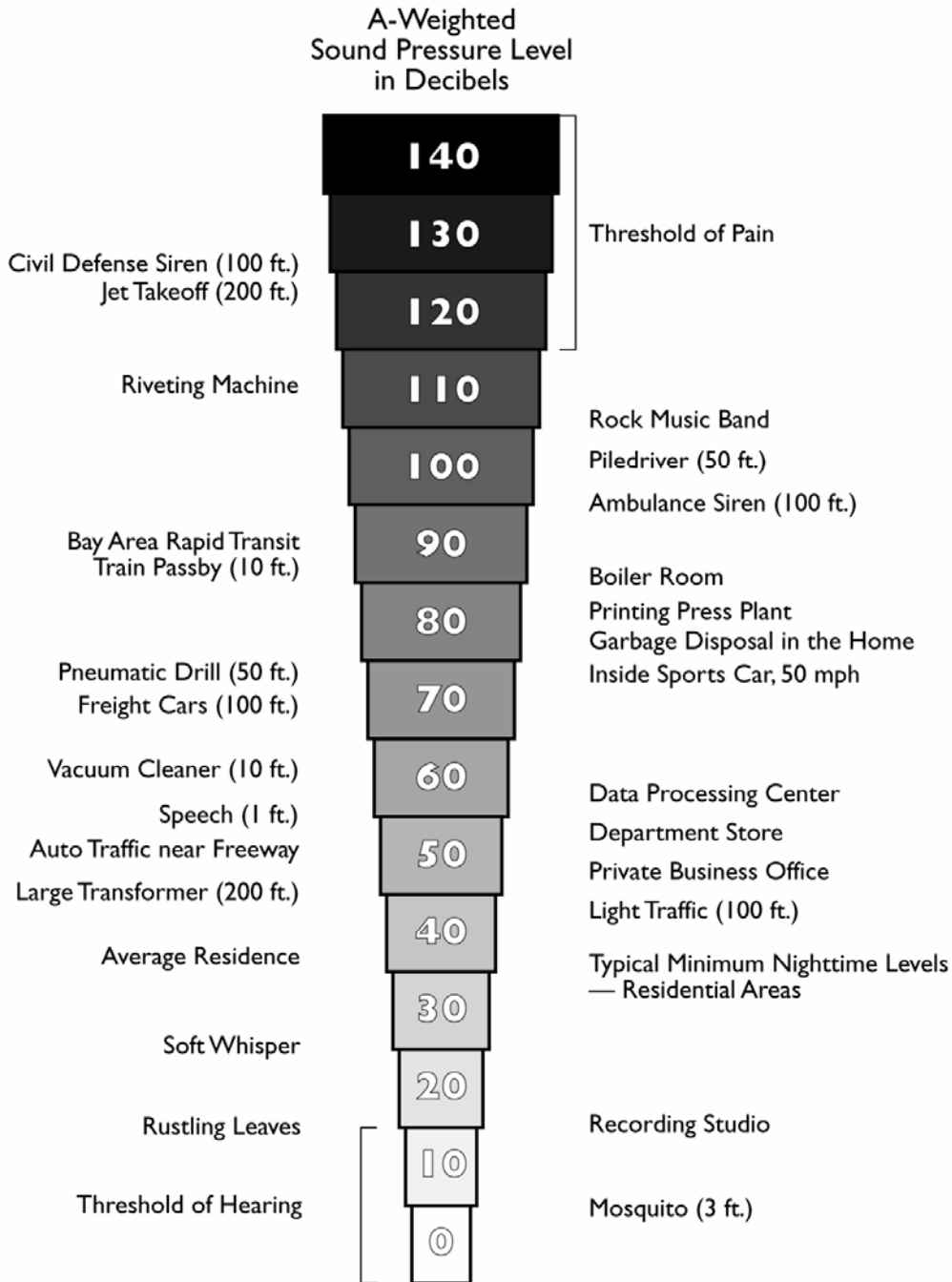
Projected Noise Conditions Under General Plan Build-Out

Vehicle traffic is expected to increase on the community's arterial streets as a result of population, job growth, and economic development expected in Castro Valley under the updated General Plan. In addition, continued development in eastern Alameda County and San Joaquin County will increase automobile traffic on I-580 and may increase the frequency of BART trains. An increase in traffic congestion may lower speeds on local roads and I-580, which could reduce noise levels. In addition, construction of proposed infill development will increase temporary point sources of noise. Because the Plan proposes to increase residential development within and near the Central Business District (CBD), the proportion of Castro Valley population that is exposed to noise generated along the I-580 corridor may be higher at build-out in 2025 than at present.

Figure 3.8-2 shows the expected future levels of noise generated by Castro Valley's transportation corridors. The map uses CNEL (Community Noise Equivalent Level) measurements, which are based on a noise measurement scale that reflects all noise received at the measurement point over a 24-hour period. Weighting factors of 5 and 10 dBA are applied to evening and night periods to allow for greater sensitivity to noise during these hours. As the map shows, weighted noise levels above 70 dB are only expected around I-580, with noise levels gradually dissipating to below 55 dB about a half a mile from the highway. The major surface streets in Castro Valley will generate some noise as well, with receptors along Lake Chabot Road experiencing up to 55 dB, and along Redwood Road, Center Street, and Crow Canyon Road receiving up to 60 dB. The Central Business District is largely in a 60 dB zone, due to sound from I-580.

³⁵ Alameda County Planning Department, *Eden Medical Center Replacement Acute Care Hospital and Ambulatory Care Center Project*, Initial Study, p. 38

Figure 3.8-1: Typical Sound Levels



(n ft.) = Distance in feet between source and listener

Source: California Office of Noise Control

Table 3.8-1 depicts the range of typical sound levels for various land use activities.

Table 3.8-1: Alameda County Exterior Noise Standards

<i>Cumulative Number of Minutes in any one hour time period</i>	<i>Daytime (7 AM to 10 PM)</i>	<i>Nighttime (10 PM to 7 AM)</i>
Residential uses, schools, hospitals, churches, and libraries		
30	50 dBA	45 dBA
15	55 dBA	50 dBA
5	60 dBA	55 dBA
1	65 dBA	60 dBA
Maximum (0)	70 dBA	65 dBA
Commercial uses		
30	65 dBA	60 dBA
15	70 dBA	65 dBA
5	75 dBA	70 dBA
1	80 dBA	75 dBA
Maximum (0)	85 dBA	80 dBA

Source: Alameda County General Code, Chapter 6.60

Helicopter Noise

The draft General Plan does not include any proposals that would change the frequency of helicopter flights. Eden Medical Center had proposed to temporarily relocate the helistop to the roof of its Lake Chabot Road parking structure during construction of a new hospital building and then to the roof of the new hospital.³⁶ Due to increased construction costs, the Medical Center is now considering retaining and retrofitting the existing hospital instead of constructing a new building.³⁷ Seismic repairs and reconstruction of the existing hospital building would probably be exempt from environmental review under CEQA.³⁸ Changes in flight paths are, however, subject to approval by the California Department of Aeronautics, based on construction clearance considerations, wind directions, and minimizing impacts on nearby land use.

Construction Noise

More than 2,000 additional dwelling units and close to 524,000 square feet of non-residential construction could occur under the proposed General Plan. About a quarter of the dwelling units would be built in existing residential areas, 42 percent would be in new neighborhoods, and the rest would be in the CBD. This construction would expose existing residences and businesses to construction noise

³⁶ Alameda County Planning Department, *Notice of Preparation of an Environmental Impact Report for the Eden Medical Center Replacement Acute Care Hospital and Ambulatory Care Center Project*, p. 4

³⁷ Karen Holzmeister, “Eden puts building plans on hold,” *Oakland Tribune*, January 1, 2007

³⁸ CEQA Guidelines, Section 15302

REGULATORY SETTING

Federal, State, and local agencies regulate different aspects of environmental noise. Generally, the federal government sets noise standards for transportation-related noise sources closely linked to interstate commerce. These include aircraft, locomotives, and trucks. The State government sets noise standards for those transportation noise sources such as automobiles, light trucks, and motorcycles. Noise sources associated with industrial, commercial, and construction activities are generally subject to local control through noise ordinances and General Plan policies. Local general plans identify general principles intended to guide and influence development plans.

State Standards

State law declares that excessive noise is a hazard to public health and safety and allows cities and counties to adopt and enforce regulations that are more stringent than state standards.³⁹ Title 24 of the California Administrative Code and Chapter 35 of the California Building Code establish an interior standard of 45 dBA for new multi-family residential construction and require acoustic analysis to show that new structures have been designed so that interior noise levels attributable to exterior sources do not exceed this level in any habitable room. The standards establish minimum requirements for protecting interior spaces from exterior noise and set minimum ratings for noise insulation of partitions between dwelling units.

The California Office of Noise Control has issued land use compatibility guidelines that were developed to assist local agencies' preparation of General Plan Noise Elements. Under these guidelines, establishing residences, churches, libraries, hospitals, and schools in areas exceeding 70 dB CNEL is normally unacceptable. These facilities are conditionally acceptable in areas that measure between 60 and 70 dB CNEL. Professional and commercial office buildings are normally unacceptable in areas exceeding 75 dB CNEL, and are conditionally acceptable in areas that measure between 67 dB and 77 dB CNEL. These guidelines, however, can be modified to reflect sensitivities of individual communities to noise.

Local Standards

The Alameda County Noise Element contains goals, objectives and implementation programs for the entire County to provide its residents with an environment that is free from excessive noise and promotes compatibility of land uses with respect to noise. The Countywide Noise Element does not explicitly state what the acceptable outdoor noise level is for the backyards of single-family homes or common outdoor spaces of multi-family housing projects but it recognizes the Federal Environmental Protection Agency (EPA) noise level standards for residential land uses. These standards are an exterior Ldn of 55 dBA and an interior Ldn of 45 dBA. (The Ldn measurement, which also includes a 10dB weighting for night-time sound, is approximately equal to the CNEL for most environmental settings.) The Noise Element also references noise and land use compatibility standards developed by an Association of Bay Area Governments (ABAG) sponsored study.

³⁹ California Health and Safety Code, Section 46000-46001

Alameda County's Noise Ordinance (County General Code, Chapter 6.60) allows higher noise levels for commercial properties than for residential uses, schools, hospitals, churches, or libraries. These standards augment the State-mandated requirements of the Alameda County Building Code, which establishes standards for interior noise levels consistent with the noise insulation standards in the California State Building Code. Table 3.8-1 shows the number of cumulative minutes that a particular external noise level is permitted, as well as the maximum noise allowed under the Alameda County General Code.

The County Zoning Ordinance (County General Code, Chapter 17) restricts noise from commercial activities by prohibiting any use that would generate a noise or vibration that is discernible without instruments beyond the property line.⁴⁰ This performance standard does not apply to transportation activities or temporary construction work.

The County Noise Ordinance also restricts the operation and use of electric and gas powered tools in residential areas and authorizes the imposition of more stringent noise limits on activities subject to a conditional use permit. The Noise Ordinance does not apply to noise associated with construction if such activities take place between 7 a.m. and 7 p.m. on weekdays or between 9 a.m. and 8 p.m. on weekends.⁴¹

IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

The proposed General Plan would have a significant effect on the environment with respect to noise if it would:

- expose persons to or generate exterior noise levels in excess of the standards established in the Alameda County Noise Ordinance (Alameda County General Ordinance Code, Chapter 6.60); or
- expose persons to or generate excessive ground-borne noise levels.

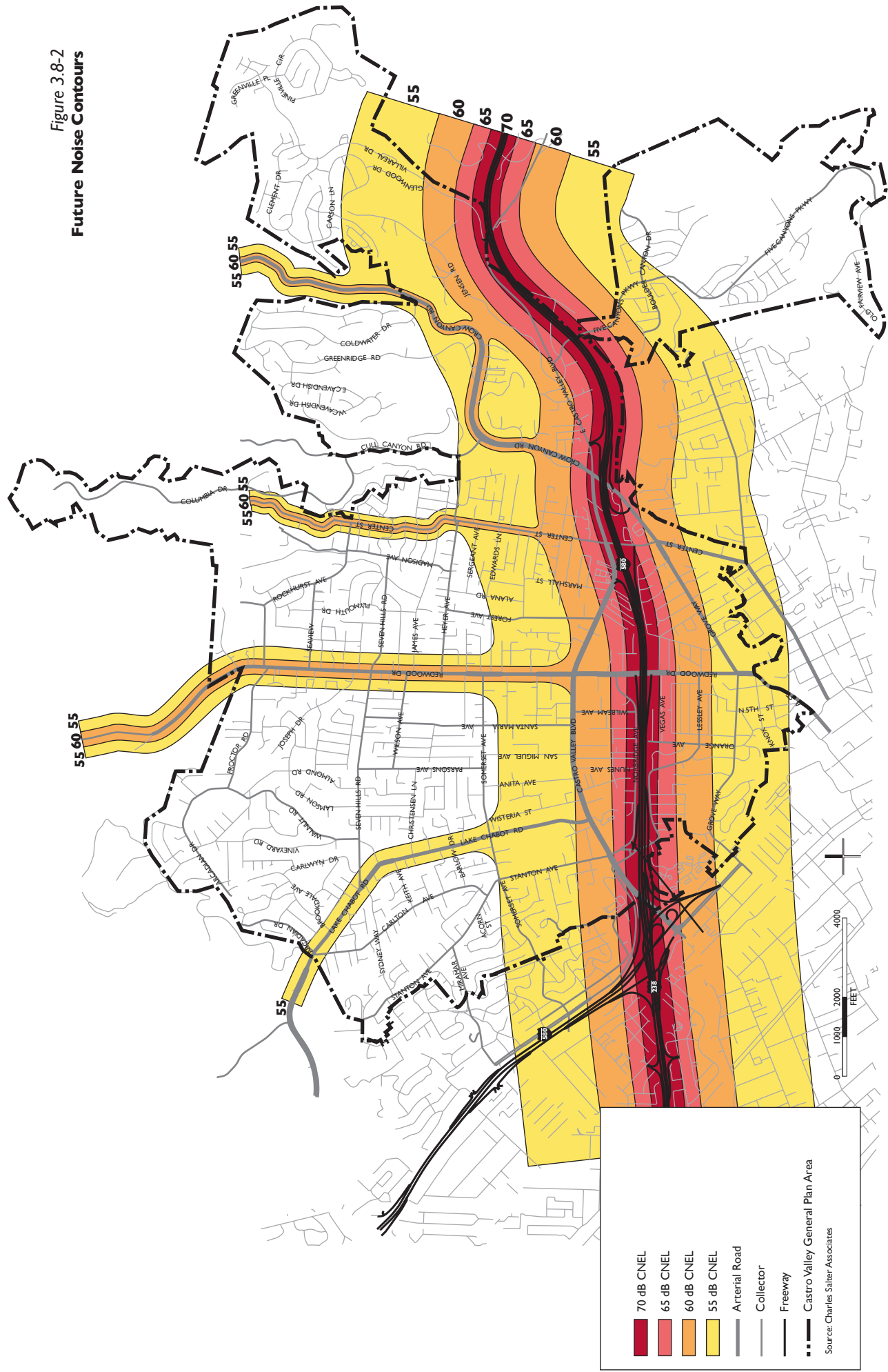
METHODOLOGY & ASSUMPTIONS

Noise exposure contours for future traffic were modeled by applying the Federal Highway Administration's noise modeling procedure. These noise contours are conservative, meaning that the contours are modeled with minimal noise attenuation by natural barriers, buildings, etc. The noise level measured at a specific location may be lower than what is shown on the noise contour map (see Figure 3.8-2).

⁴⁰ Alameda County General Code, Section 17.42.020

⁴¹ Alameda County General Code, Sections 6.60.050, 6.60.070.

Figure 3.8-2
Future Noise Contours



SUMMARY OF IMPACTS

Implementation of the proposed General Plan would result in increased traffic volumes thus increasing noise levels in some areas. However, policies aimed at buffering noise levels and locating sensitive receptors away from noise sources help to reduce these impacts. Increases in traffic levels can be counteracted by the implementation of alternate forms of transportation and land use design that factor in noise concerns. Locating noise-sensitive uses away from high-noise areas (e.g. major transportation routes), buffering noise levels through design and landscaping features, and restricting emergency helicopter flight paths to the least disruptive approach and departure corridors will help minimize future noise-related land use conflicts. Policies in the proposed General Plan establish review criteria for certain land uses to ensure that future noise levels will not exceed acceptable levels near noise-sensitive land uses.

IMPACTS AND MITIGATION MEASURES

Impact

New development under the proposed General Plan could expose persons to or generate noise levels in excess of 60 dB for single family, duplex, and mobile homes; 65 dB for residential multi-family and high density residential, mixed use, motels, and hotels; 70 dB for schools, libraries, churches, hospitals, nursing homes, playgrounds, neighborhood parks, and office buildings, business, commercial and professional uses. (*Less than Significant*)

About 58 percent of the additional residential development projected under the draft Plan is expected to be in new multi-family development and 74 percent of these units are anticipated in and near the Central Business District (CBD). This is the part of Castro Valley that has the highest noise levels. New development in the CBD is proposed to include housing in mixed-use projects around the BART station and multi-family residential near Castro Valley Boulevard east of the CBD and along Center Street south of I-580. Noise levels are projected to reach 70db near the BART station and 65db along Castro Valley Boulevard. The new Castro Valley library is also sited in an area where noise levels may reach 70dB. Medium-density multi-family development is also proposed north of the CBD in the area bounded by Lake Chabot Road, Somerset Avenue, and Redwood Road. Except for the Redwood Road frontage, noise levels in this area are projected to be within 55dB.

The draft Plan proposes to amend the County noise ordinance to allow longer periods during which noise levels could exceed 50 dBA, up to a maximum noise level of 70 dBA, for exterior areas of residential development within one half mile of the Castro Valley BART station. This could expose residents living close to BART to higher noise levels than would be acceptable in other parts of the community. At the same time, the Plan also proposes that projects close to BART be required to incorporate features to minimize outdoor noise levels. Development within a half mile of BART would also have to comply with the County's standards for indoor noise.

All new residential construction will have to comply with the County Building Code, which establishes standards for interior noise levels consistent with the noise insulation standards in the State Building Code using the A-weighted decibel scale (dBA). The County Building Code

also requires acoustic analysis to show that new structures have been designed so that interior noise levels attributable to exterior sources do not exceed 45 dB in any habitable room.

Proposed Castro Valley General Plan Policies that Further Reduce the Impact

The following proposed policies and actions, including some that relate to air quality impacts, would further reduce the less-than-significant impacts from General Plan implementation:

Policy 11.1-1 Avoid siting new noise-sensitive uses in areas with projected noise levels greater than 70 dBA. Where such uses are permitted, require incorporation of mitigation measures to ensure that interior noise levels are acceptable.

Policy 11.1-2 Limit traffic speeds to levels that do not produce noise in excess of established County noise standards.

Require the incorporation of noise mitigation measures in project site planning and design to meet County noise standards, including measures such as:

- Orienting building openings, decks, and outdoor open space areas associated with sensitive land uses (residential, schools, hospitals, convalescent homes, parks, etc.) away from I-580 and arterial roads;
- Double pane or triple pane windows; and
- Construction of perimeter sound walls.

Action 11.1-1 Amend County noise regulations to allow longer periods of noise levels above 50 dBA, up to a maximum noise level of 70 dBA, for exterior areas of residential development within one half mile of the Castro Valley BART station. Require noise mitigations to minimize outdoor noise levels and to fully achieve the standards for indoor noise.

Action 11.1-2 Require that applicants for new noise-sensitive development in areas subject to noise levels greater than those established by the County obtain the services of a professional acoustical engineer to provide a technical analysis and design of mitigation measures.

Action 11.1-3 Require placement of fixed equipment, such as air conditioning units and condensers, inside or in the walls of new buildings or on roof-tops of central units in order to reduce noise impacts on any nearby sensitive receptors.

Action 11.1-4 Make any adjustments to intersections along Castro Valley Boulevard and at entrance and exit points to I-580 in such a way to prevent vehicle speeds that would exceed County noise standards.

Policy 11.2-3 Protect sensitive receptors, including residential uses, schools, day care centers, parks with recreation facilities, and medical facilities, which are located within 1000 feet of the Interstate 580 corridors from air pollutants. Also consider the impacts of odors and toxic emissions on sensitive receptors.

Policy 11.2-4 Locate sensitive receptors at least 300 feet away, and ideally 500 feet away, from the edge of Interstate 580.

Action 11.2-3 Revise zoning to incorporate regulations limiting the location of sensitive receptors within 300 feet of Interstate 580.

Action 11.2-4 Establish site design criteria and standards for development sites adjacent to the Interstate 580 corridor through Castro Valley (particularly parcels located downwind of the prevailing winds) to help reduce potential adverse air quality impacts. Also consider if there are any odor sources near the sites and whether mitigations should be required. Examples of design requirements and mitigations include, but would not be limited to:

- Orienting building openings and open areas, such as patios and decks, associated with sensitive land uses (residential, schools, hospitals, convalescent homes, parks, etc.) away from I-580; and
- Requiring minimum landscaped setbacks for buffer areas.
- Introducing landscaping and vegetation, which can absorb carbon monoxide, to buffer sensitive land uses.

Mitigation Measures

No mitigation measures are required.

Impact

3.8-2 Construction and demolition activities associated with new development under the proposed General Plan would potentially expose noise-sensitive uses to construction-related noise. (*Less than Significant*)

Construction activities would occur intermittently at different locations in the Planning Area throughout implementation of the proposed General Plan. Although the noise impacts at any one location would be temporary, because most of the new development will occur in existing developed areas, the construction of individual projects could have adverse impacts on persons who live and work in most parts of the Planning Area. The largest construction projects are likely to occur in the Central Business District, where noise levels are already higher due to traffic in the I-580 corridor, along Castro Valley Boulevard, and from BART trains.

The Alameda County Noise Ordinance does not apply to noise associated with construction if such activities take place between 7 a.m. and 7 p.m. on weekdays or between 9 a.m. and 8 p.m. on weekends.⁴² The Noise Ordinance does, however, authorize the County to impose construction noise restrictions when a conditional use permit or other permit is required.

⁴² Alameda County General Code, Sections 6.60.050, 6.60.070.

Proposed Castro Valley General Plan Policies that Further Reduce the Impact

The following proposed action would further reduce the less-than-significant impacts from construction activities:

Action 11.1-6 Short-Term Noise Impacts of Construction. Develop standard conditions of approval applicable to all construction projects to reduce the short-term impacts of noise generated by construction equipment and traffic.

Mitigation Measures

No mitigation measures are required.

REFERENCES

Alameda County Community Development Agency, *Eden Medical Center Replacement Acute Care Hospital and Ambulatory Care Center Project*, Initial Study, June 2004.

Alameda County Planning Department, *Notice of Preparation of an Environmental Impact Report for the Eden Medical Center Replacement Acute Care Hospital and Ambulatory Care Center Project*, June 2004.

Alameda County General Code, Chapter 6.60 (Noise Ordinance)

Alameda County, General Plan Noise Element, Adopted January 8, 1976, Amended May 5, 1994.

Alameda County Building Code 15.08.030, Volume 1 Appendix Chapter 12, Division IIA, Section 1208 A

California Health and Safety Code, Section 46000 et. seq. (California Noise Control Act)

California Administrative Code, Title 24 (State Noise Insulation Standards)

Governor's Office of Planning and Research, *General Plan Guidelines, Appendix C (Guidelines for the Preparation and Content of the Noise Element of the General Plan)*, October 2003.

Karen Holzmeister, "Eden puts building plans on hold," *Oakland Tribune*, January 1, 2007

U.S. Department of Transportation, Federal Highway Administration, Highway Traffic Noise, <<http://www.fhwa.dot.gov/environment/htnoise.htm>

3.9 Seismic, Soils, and Landslide Hazards

This section describes the regional geologic and seismic characteristics influencing the Castro Valley Planning Area including local faulting and soils. The section reviews regulatory and physical settings and analyses the potential for soil, geologic, and seismic impacts based on specific impact significance criteria.

ENVIRONMENTAL SETTING

PHYSICAL SETTING

Topography and Soils

Elevations in Castro Valley range from approximately 100 feet above mean sea level (msl) to the west to approximately 500 feet above msl to the north and northeast. Located on the western flanks of the Diablo Range, Castro Valley lies within the physiographic region of California referred to as the Coast Ranges geomorphic province of California. Geomorphic provinces are geologic regions that display distinct landscapes or landforms and are defined based on geology, faults, topographic relief and climate. The Coast Ranges geomorphic province, extending approximately 600 miles from the Santa Ynez River in Santa Barbara County to the Oregon border, consists of northwestern trending mountain ranges, broad basins, and elongated valleys that run parallel to the San Andreas Fault system.

Much of the Coast Range province contains marine sedimentary and volcanic rocks that form the Franciscan Assemblage. In the valleys and lowland areas, these older, consolidated rocks are buried beneath younger, unconsolidated alluvial fan and fluvial sediment. Castro Valley, specifically, is largely underlain by Quaternary-age (1.6 million years old to the present) alluvial fan deposits consisting of sand, silt, gravel and clay. Upland areas of Castro Valley are underlain by bedrock deposits consisting mainly of sandstones and shales of Cretaceous/Jurassic age (65 to 190 million years old).

Seismicity and Seismic Hazards

Like the majority of California, Castro Valley is subject to risks from seismic activity. Castro Valley is located in the San Andreas Fault Zone, one of the most seismically active regions in the United States. The San Andreas Fault Zone has generated numerous moderate to strong earthquakes in northern California and the San Francisco Bay Area. The region experienced large and destructive earthquakes in 1838, 1868, 1906 and 1989. Earthquakes of equally destructive force are a certainty in the San Francisco Bay region according to the Working Group on California Earthquake Probabilities (Working Group on California Earthquake Probabilities, 2003), established by the United States Geological Survey (USGS).

Earthquakes can give rise to various secondary seismic hazards including ground shaking, liquefaction and subsidence, ground rupture and slope instability. These seismic hazards and their aftermath can give rise to structural damage, bodily harm and loss of human life.

Earthquake Faults

The Hayward Fault, one of ten major faults that make up the San Andreas Fault Zone, runs along the western edge of Castro Valley. Figure 3.9-1 shows the active faults in the Castro Valley vicinity. To the north, the Hayward Fault is linked with the Rodgers Creek Fault. The last major earthquake generated by the Hayward Fault was in 1868. However, pressure is slowly building up again in the Hayward Fault zone and eventually it will overcome the friction and other forces that are causing the fault zone to stick. The accumulated energy will be released in another big earthquake.

Castro Valley is within one of the Hayward fault zone's four subzones. Geologists have defined the subzones based on characteristics that result from changing location and deformation of the Hayward fault zone through geologic history. The Castro Valley subzone lies east of the Chabot fault and is bounded on the south by the Sheridan Creek fault.⁴³

According to the USGS, the fault system that includes the Hayward and Rodgers Creek faults has a 27 percent probability of generating an earthquake with a magnitude greater or equal to 6.7 on the Mercalli Richter Scale in the next 30 years (USGS, 2000). It is also the most likely fault in the Bay Area to be the site of a major earthquake in this time period. The Hayward Fault is of particular concern to the USGS because of the dense urban fabric along its length and the major infrastructure lines that cross it. A large earthquake on the Hayward Fault would, in all probability, cause extensive damage in Castro Valley.

A moderate to major earthquake on the Hayward Fault is most likely to generate the strongest ground shaking in the area, but other regional faults, including the San Andreas, Calaveras or Rodgers Creek, could also affect Castro Valley. A moderate to major earthquake on any of these faults could topple buildings, disrupt infrastructure, cripple the transportation system, and trigger landslides.

Ground Shaking Susceptibility

Ground movement during an earthquake can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and type of geologic material. The composition of underlying soils, even those relatively distant from faults, can intensify ground shaking. Areas that are underlain by bedrock tend to experience less ground shaking than those underlain by unconsolidated sediments such as artificial fill or unconsolidated alluvial fill. The strongest ground shaking is anticipated to occur as a result of an earthquake on the Hayward fault, due to immediate proximity. The Modified Mercalli (MM) intensity scale is commonly used to measure earthquake effects due to ground shaking. The MM values for intensity range from I (earthquake not felt) to XII (damage nearly total), and intensities ranging from IV to X could cause moderate to significant structural damage (see Table 3.9-1). Maximum anticipated ground shaking intensities within the Castro Valley area are illustrated in Figure 3.9-2. Based

⁴³ R.W. Graymer, D.L. Jones, E.E. Brabb. *Geology of the Hayward fault zone: A digital map database*, U.S. Geological Survey Open-File Report 95-597

upon the MM intensity scale, damage in areas immediately bordering the fault could be significant.

Table 3.9-1: Modified Mercalli Intensity Scale

<i>Intensity Value</i>	<i>Intensity Description</i>	<i>Average Peak Acceleration¹</i>
I	Felt by very few people, barely noticeable.	< 0.0017 g
II	Felt by persons at rest, on upper floors, or favorably placed.	< 0.014 g
III	Felt indoors. Hanging objects swing. Vibration like passing of light trucks. Duration estimated. May not be recognized as an earthquake.	< 0.014 g
IV	Hanging objects swing. Vibration like passing of heavy trucks; or sensation of a jolt like a heavy ball striking the walls. Standing motor cars rock. Windows, dishes, doors rattle. Glasses clink. Crockery clashes. In the upper range of IV, wooden walls and frames creak.	0.014–0.04 g
V	Felt outdoors; direction estimated. Sleepers wakened. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Doors swing, close, open. Shutters, pictures move. Pendulum clocks stop, start, change rate.	0.04–0.09 g
VI	Felt by all. Many frightened and run outdoors. Persons walk unsteadily. Windows, dishes, glassware broken. Knick-knacks, books, etc., off shelves. Pictures off walls. Furniture moved or overturned. Weak plaster and masonry D cracked. Small bells ring (church, school). Trees, bushes shaken (visibly, or heard to rustle).	0.09–0.18 g
VII	Difficult to stand. Noticed by drivers of motor cars. Hanging objects quiver. Furniture broken. Damage to masonry D, including cracks. Weak chimneys broken at roofline. Fall of plaster, loose bricks, stones, tiles, cornices (also unbraced parapets and architectural ornaments). Some cracks in masonry C. Waves on ponds; water turbid with mud. Small slides and caving in along sand or gravel banks. Large bells ring. Concrete irrigation ditches damaged.	0.18–0.34 g
VIII	Steering of motor cars affected. Damage to masonry C; partial collapse. Some damage to masonry B; none to masonry A. Stucco and some masonry walls fall. Twisting, fall of chimneys, factory stacks, monuments, towers, elevated tanks. Frame houses moved on foundations if not bolted down; loose panel walls thrown out. Decayed piling broken off. Branches broken from trees. Changes in flow or temperature of springs and wells. Cracks in wet ground and on steep slopes.	0.34–0.65 g
IX	General panic. Masonry D destroyed; masonry C heavily damaged, sometimes with complete collapse; masonry B seriously damaged. (General damage to foundations.) Frame structures, if not bolted, shifted off foundations. Frames cracked. Serious damage to reservoirs. Underground pipes broken. Conspicuous cracks in ground. In alluvial areas sand and mud ejected, earthquake fountains, sand craters.	0.65–1.24 g
X	Most masonry and frame structures destroyed with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes, embankments. Large landslides. Water thrown on banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flat land. Rails bent slightly.	> 1.24 g
XI	Rails bent greatly. Underground pipelines completely out of service.	> 1.24 g

Table 3.9-1: Modified Mercalli Intensity Scale

<i>Intensity Value</i>	<i>Intensity Description</i>	<i>Average Peak Acceleration¹</i>
XII	Damage nearly total. Large rock masses displaced. Lines of sight and level distorted. Objects thrown into the air.	> 1.24 g

NOTES: ¹g (gravity) = 980 centimeters per second squared. 1.0 g of acceleration is a rate of increase in speed equivalent to a car traveling 328 feet from rest in 4.5 seconds.

Masonry A: Good workmanship, mortar, and design; reinforced, especially laterally, and bound together by using steel, concrete, etc.; designed to resist lateral forces.

Masonry B: Good workmanship and mortar; reinforced, but not designed in detail to resist lateral forces.

Masonry C: Ordinary workmanship and mortar; no extreme weaknesses like failing to tie in at corners, but neither reinforced nor designed against horizontal forces.

Masonry D: Weak materials, such as adobe; poor mortar; low standards of workmanship; weak horizontally.

Source: ABAG, 2003.

Liquefaction

Liquefaction is a phenomenon whereby unconsolidated and/or near-saturated soils lose cohesion and are converted to a fluid state as a result of severe vibratory motion. The relatively rapid loss of soil shear strength during strong earthquake shaking results in temporary, fluid-like behavior of the soil. Soil liquefaction causes ground failure that can damage roads, pipelines, underground cables, and buildings with shallow foundations. Liquefaction more commonly occurs in looser, saturated unconsolidated or artificial fill sediments located in reclaimed areas along the margin of San Francisco Bay.

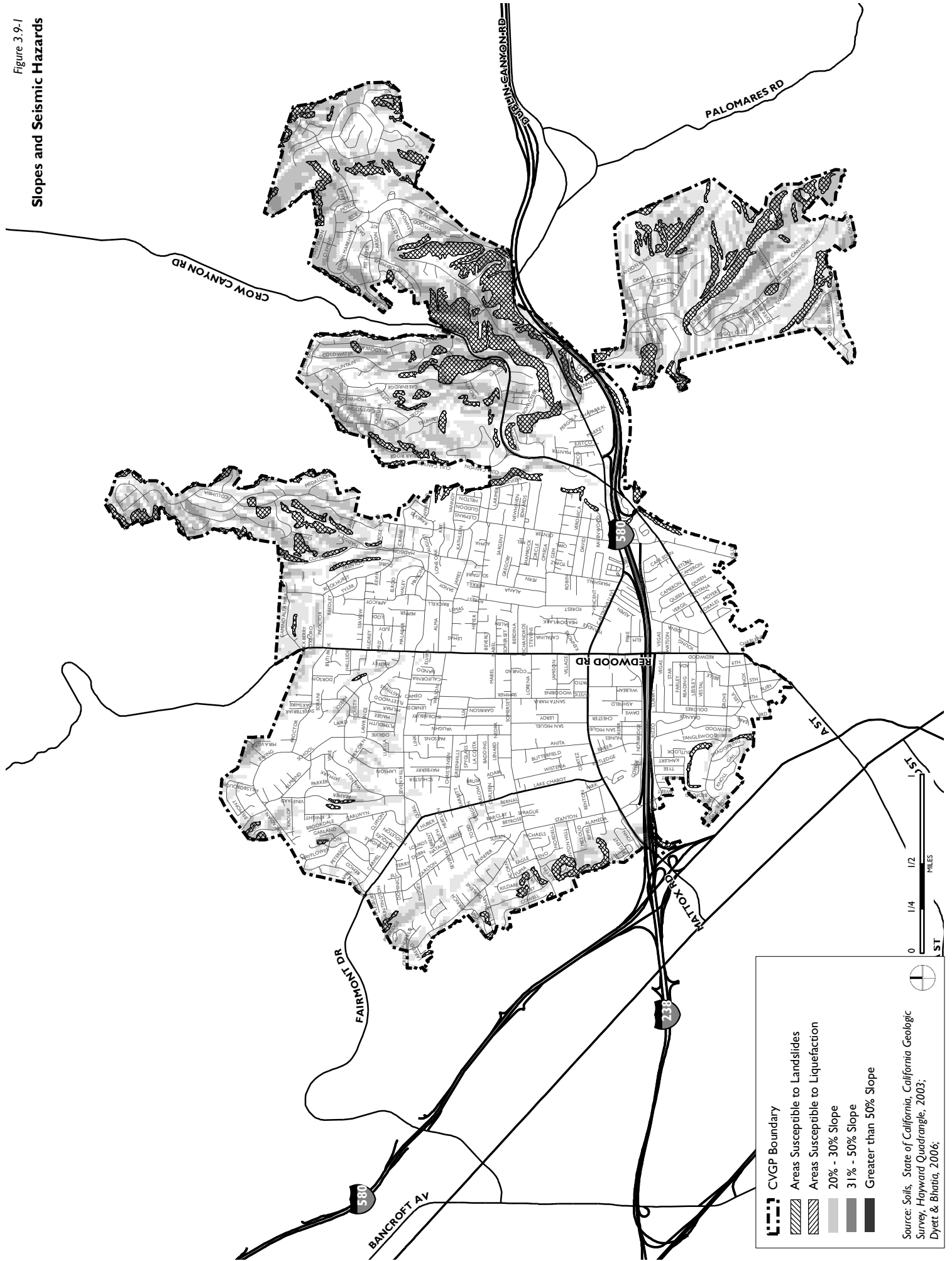
Regions within Castro Valley that have high to very high levels of liquefaction susceptibility include the western edge of the city and other areas underlain by alluvial deposits, as shown in Figure 3.9-1.

Landslides

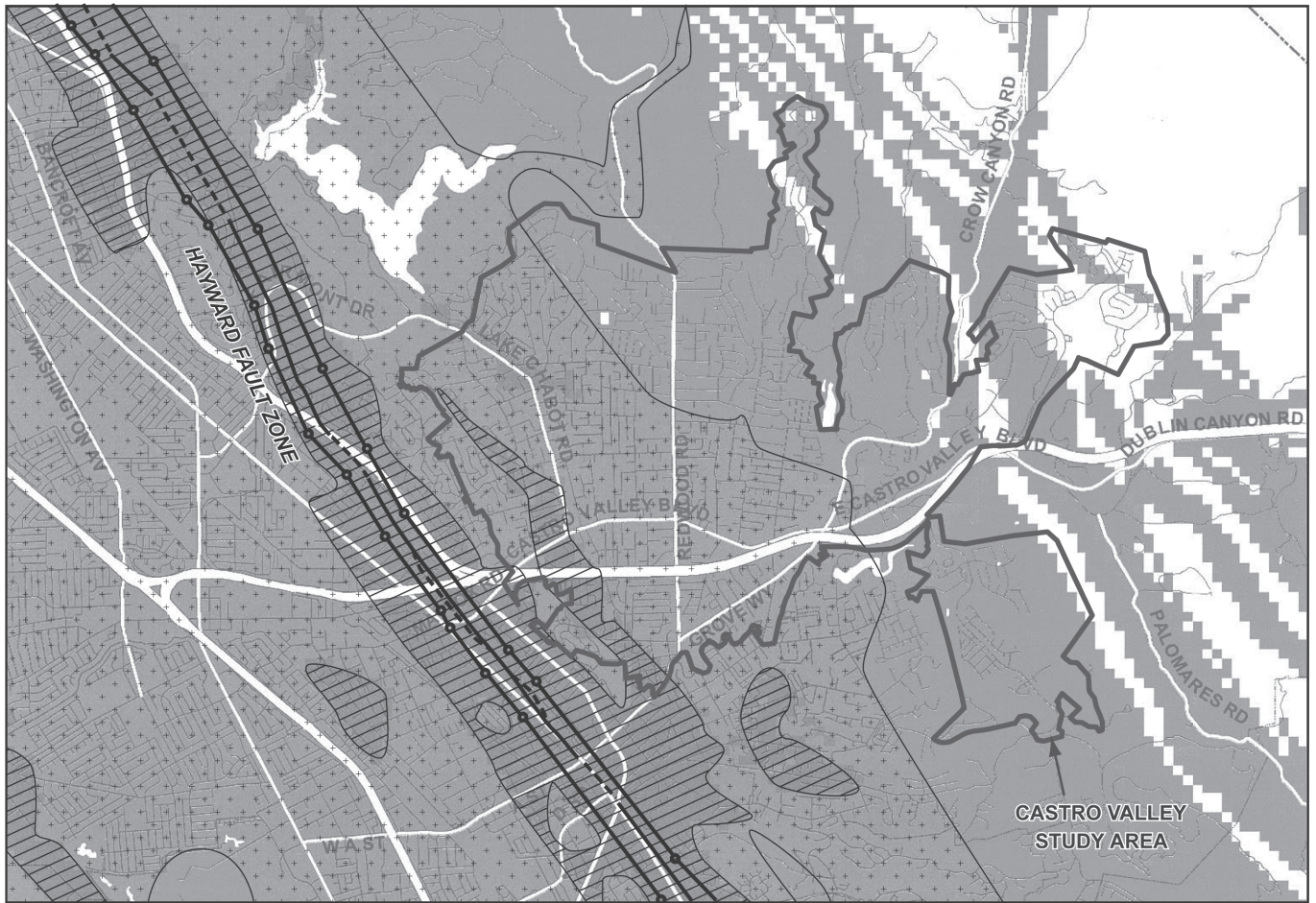
A landslide is a mass of rock, soil and debris displaced down slope by sliding, flowing, or falling. Ground failure is dependent on topography and underlying geologic materials, as well as factors such as rainfall, excavation, or seismic activities that can precipitate slope instability. Steep slopes and downslope creep of surface materials characterize areas most susceptible to landsliding. Landslides are least likely in topographically low alluvial fans and at the margin of the San Francisco Bay.

The highest susceptibility to landsliding in Castro Valley exists in the upland areas surrounding the city to the north, east and south, as illustrated in Figure 3.9-1.





Figure 3.9-1
Slopes and Seismic Hazards





Source: Soils, State of California, California Geologic Survey, Hayward Quadrangle, 2003; Dyrett & Bhatia, 2006;



**Modified Mercalli Intensity
Shaking Severity Level**

-  X Very Violent
-  IX Violent
-  VIII Very Strong
-  VII Strong

-  Fault Trace
(Dashed where concealed or uncertain)
-  Boundary of Alquist Priolo Earthquake



Source: Association of Bay Area Governments (2003)

Figure 3.9-2
Earthquake Shaking Scenario

REGULATORY SETTING

State

Alquist Priolo Earthquake Fault Zoning Act

The State legislation protecting the population of California from the effects of fault-line ground-surface rupture is the Alquist-Priolo Earthquake Fault Zoning Act. In 1972, California began delineating Earthquake Fault Zones (called Special Studies Zones prior to 1994) around active and potentially active faults to reduce fault rupture risks to structures for human occupancy. This Act has resulted in the preparation of maps delineating Earthquake Fault Zones to include, among others, recently active segments of the San Andreas fault zone. The Act provides for special seismic design considerations if developments are planned in areas adjacent to active or potentially active faults. None of the Castro Valley Planning Area is within the Alquist-Priolo Earthquake Fault Zone.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) enacted by the California Legislature in 1990, was developed to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and other hazards caused by earthquakes. SHMA requires the State Geologist to delineate various seismic hazards zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a seismic hazard zone, a geotechnical investigation of the site has to be conducted and appropriate mitigation measures incorporated into the project design. The CGS Special Publication 117, adopted in 1997 by the CGS in accordance with the SHMS, provides guidelines for evaluating seismic hazards other than surface faulting, and recommends mitigation measures as required by Public Resources Code Section 2695(a).

California Building Code

The State regulations protecting the public from geo-seismic hazards, other than surface faulting, are contained in the California Code of Regulations, Title 24, Part 2 (the California Building Code (CBC)) and California Public Resources Code, Division 2, Chapter 7.8 (the Seismic Hazards Mapping Act). Both of these regulations apply to public buildings (and a large percentage of private buildings) intended for human occupancy. The CBC is based on the current Uniform Building Code, but contains Additions, Amendments, and Repeals that are specific to building conditions and structural requirements in the State of California (International Conference of Building Officials, 1994). These amendments include criteria for seismic design. Castro Valley and the greater San Francisco Bay Area are located within Zone 4 which, of the four seismic zones designated in the United States, is expected to experience the greatest effects from earthquake ground shaking and therefore has the most stringent requirements for seismic design. City and county codes are permitted to be more stringent than Title 24, but are required to be no less stringent.

Local

Alameda County adopted the 2001 California Building Code (Title 15 of the Alameda County General Ordinance Code) as the basis for the building conditions and structural requirements

in the County. Section 15.36.320 also requires the preparation of a geotechnical investigation during the project planning phase when the project requires grading on slopes, when highly expansive soils are present, and in areas of known or suspected geological hazards.

Alameda County also includes a Seismic Safety and Safety Element (adopted 1982) that includes objectives, principles and implementation recommendations designed to minimize personal injury and loss of life due to environmental hazards. Principles and implementation policies from the County's Seismic Safety Element relevant to seismic hazards include:

Principle 2.2 All new development should be designed and constructed to minimize risk due to geologic and seismic hazards.

Implementation

- 2.2.1 Require geologic soils and engineering investigations for development proposed in geologic hazards areas. Condition projects to follow report recommendations.
- 2.2.2 Require structures and facilities to be designed and constructed to meet seismic safety and related design requirements of the most recent Uniform Building Code, or more stringent requirements applicable to critical, essential or high occupancy facilities; or as indicated by site investigations.
- 2.4.2 Develop a seismic educational program for use by Schools, developers and the public at large covering hazards, abatements and emergency plans and procedures.
- 2.4.3 Continue coordination among cities and the County in the development of rational land use policies in light of geologic/seismic hazards; emergency operations plans and emergency preparedness plans.
- 2.4.4 Coordinate with responsible officials in the development of emergency preparedness for public and private agencies and residential areas.

IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

Impacts of buildout of the proposed General Plan would be significant if they would:

- Expose people or structures to 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 (risk or exposure to fault rupture may result if structures intended for human occupancy are constructed over, or within 50 feet of an active fault trace);

- Strong seismic ground-shaking;
- Seismic-related ground failure, including liquefaction;
- Landslides or mudflows;
- Involve development on a geologic unit or soil that is unstable (or that would become un-stable as a result of the project) and could potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- Involve development on expansive soil that could create substantial risk to life and property, or hinder the development of necessary infrastructure;
- Result in substantial erosion or loss of topsoil from excavation, grading, or fill; or
- Develop in areas where soils are incapable of adequately supporting the use of septic tanks where sewers are not available for the disposal of wastewater.

METHODOLOGY & ASSUMPTIONS

Widely available industry sources were examined to document regional and local geology. Information regarding regional geology and seismically induced hazards was taken from various sources of the California Geological Survey and the United States Geological Survey. Planning Area geologic information, soil characteristics, liquefaction potential, and estimated maximum earthquake magnitudes resulting from potential seismic activity on various active faults in the area were obtained from previous environmental documentation prepared for projects in the general vicinity, as well as from USGS, CGS, and Association of Bay Area Governments sources. Where potential geological hazards are identified in the Planning Area, such hazards are expected to affect any potential development. The following analysis considers the potential effects of components of the proposed General Plan.

SUMMARY OF IMPACTS

The following impact analysis illustrates that the design-controllable aspects of building foundation support, protection from seismic ground motion, and slope instability are governed by existing regulations of the State of California and Alameda County. These regulations require that project designs reduce potential adverse soils, geology, and seismicity effects to less than significant levels. Compliance with these regulations is required, not optional. Compliance must be demonstrated by the project sponsor to have been incorporated in the project's design before permits for project construction would be issued.

There would be no impacts inside the Planning Area related to fault rupture or on soils incapable of adequately supporting the use of septic tanks. Fault-line surface rupture would not be an impact inside the Planning Area because this situation does not exist within the Planning Area (the Hayward Fault to the west of, but not within, the Planning Area boundaries).

There would be no impacts related to seismic groundshaking, seismic-related ground failure, landslides, mudflows, settlement and/or subsidence of the land, lateral spreading, expansive soils, or erosion because existing State and County regulations require that these hazards be

investigated during the project planning process and measures to eliminate them incorporated in the project design prior to completing the project approval process.

Adherence to the foundation support parameters in the County's Building Code, as required by State and County law, ensures the maximum practicable protection available from slope failures under static or dynamic conditions for structures and their associated trenches, temporary slopes and foundations. In view of the above, implementation of the proposed General Plan would have a less than significant impact regarding exposing people or structures to landslide hazards.

IMPACTS AND MITIGATION MEASURES

Impact

3.9-1 Buildout of the proposed General Plan would expose people or structures to strong seismic groundshaking or seismic-related ground failure. (Less than Significant)

As indicated above, the Castro Valley Planning Area is located in a seismically active region, and as such, strong ground shaking would be expected during the 25-year lifetime of the proposed General Plan. The active Hayward Fault show evidence of creep and has a high potential for rupture in the Castro Valley area. Because it would be located in a seismically active area, development associated with the implementation of the General Plan would result in the exposure of people or structures to potential substantial adverse effects.

Adherence to the Building Code, as required by State and County law, would ensure maximum practicable protection available to users of the buildings and associated infrastructure. Adherence would include:

- Use of CBC Seismic Zone 4 Standards, including Near-Source Factors, as the minimum seismic-resistant design for all proposed facilities;
- Additional seismic-resistant earthwork and construction design criteria, based on the site-specific recommendations of the geotechnical report;
- An engineering analysis that demonstrates satisfactory performance of alluvium or fill where either forms part or all of the support, especially where the possible occurrence of liquefiable soils exist; and
- An analysis of soil expansion potential and appropriate remediation (compaction, removal/replacement, etc.) prior to using any expansive soils for foundation support.
- The existing regulatory framework that addresses earthquake safety issues and requires compliance with the requirements of the Building Code would reduce the potential hazard posed by seismically-induced groundshaking to less than significant levels.
- As mentioned above, the Planning Area contains areas of liquefaction hazard zones and may contain unstable soil in the groundwater-saturated alluvial deposits. The threat of liquefaction generally occurs in the same areas that are susceptible to flooding (see Figure 3.10-1). Potentially unstable soils discovered during excavation are required by the provisions of the Building Code to be removed and replaced, or otherwise treated to

provide appropriate foundation support and to protect them from failures such as liquefaction. Adherence to Seismic Zone 4 soils and foundation support parameters and grading requirements in Chapter 15 of the Building Code ensures the maximum practicable protection from ground failure under static or dynamic conditions for structures and their associated trenches, temporary slopes and foundations. The policies and actions the Plan proposes to reduce potential hazards from flooding (see Section 3.10) would also mitigate the potential impact of damage caused by liquefaction. The Draft Plan's proposals include a policy to prohibit new structures within the 100-year flood plain (Action 102-20). Therefore, implementation of the proposed General Plan would have a less than significant impact regarding exposing people or structures to damage resulting from seismically-induced ground failure.

Proposed General Plan Policies that Reduce the Impact

Policy 10.3.1: Design and construct structures to withstand groundshaking forces of a minor earthquake without damage, of a moderate earthquake without structural damage, and of a major earthquake without collapse. Design and construct critical and essential structures and facilities to remain standing and functional following a major earthquake.

Action 10.3.1 – Require geotechnical studies prior to development approval in geologic and/or seismic hazard areas identified in Draft Plan Figure 10-3, Soils and Seismic Hazards, or as identified by future studies by federal State, and regional agencies. Require or undertake comprehensive geologic and engineering studies for critical structures regardless of location.

Critical structures are those most needed following a disaster or those that could pose hazards of their own if damaged. They include utility centers and substations, water reservoirs, hospitals, fire stations, police and emergency communications facilities, and bridges and overpasses.

Action 10.3.2 - Adopt and amend as needed updated versions of the California Building Code (CBC) so that optimal earthquake-protection standards are used in construction and renovation projects.

Earthquake-resistant design and materials must meet or exceed the current seismic engineering standards of the CBC Seismic Zone 4 requirements.

Action 10.3.3 – Establish a seismic retrofit program that would encourage property owners to, on a voluntary basis, seismically retrofit residential properties containing four or more units by waiving building permit fees.

Impact

3.9-2 Development under the proposed General Plan would be subject to risk from settlement and/or subsidence of land, lateral spreading, or expansive soils, creating substantial risks to life or property. (Less than Significant)

The existence of compressible, corrosive and expansive soils in the Planning Area makes it necessary to ensure the soils for foundation support are sound. Using unsuitable soils would have the potential to create future liquefaction, subsidence or collapse problems leading to

building settlement and/or utility line disruption. When weak soils are re-engineered specifically for stability prior to use, these potential effects can be reduced or eliminated. An acceptable degree of soil stability would be achieved for expansive, liquefaction-prone and compressible soils by the required incorporation of soil treatment programs (replacement, grouting, compaction, drainage control, etc.) in the excavation and construction plans to address site-specific soil conditions. A site-specific evaluation of soil conditions is required by the County's Building Code and must contain recommendations for ground preparation and earthwork specific to the site, which become an integral part of the construction design.

The existence of expansive soils inside the Planning Area raises concerns about foundation stability for dwellings, road, and utilities. The preceding discussions of soil and seismic issues indicate that the Building Code requires a site-specific foundation investigation and report for each construction site that (a) identifies unsuitable soil conditions and (b) contains appropriate recommendations for foundation type and design criteria that conform to the analysis and implementation criteria described in the County's Building Code.

Specific treatments to eliminate the effects of expansion of soils include, but are not limited to, grouting (cementing the soil particles together), recompaction (watering and compressing the soils), and replacement with a non-expansive material (excavation of unsuitable soil followed by filling with suitable material), all of which are commonly used methods throughout the County. The County's Building Code requires that each construction location be evaluated to determine the particular treatment, if any, that would be most appropriate.

As part of the construction permitting process, the County requires completed reports of soil conditions at the specific construction sites to identify potentially unsuitable soil conditions including liquefaction, subsidence and collapse. The evaluations must be conducted by registered soil professionals and measures to eliminate inappropriate soil conditions must be applied, depending on the soil conditions. The design of foundation support must conform to the analysis and implementation criteria described in the County's Building Code. Adherence to the County's codes and General Plan policies would ensure the maximum practicable protection available for users of buildings and infrastructure and their associated trenches, slopes and foundations. Thus, implementation of the proposed General Plan would have a less-than-significant impact regarding exposing property or people to the hazards of unstable geologic units or soils.

Impact

3.9-3 Buildout of the proposed General Plan may result in soil erosion. (Less than Significant)

Grading for most structures that would be built under the proposed General Plan is expected to be minimal, consisting of grading for foundations, building pads, access roads, and utility trenches. Excavations for utility trenches and foundations typically involve less than five feet of change in ground surface elevations. Most road and pad grading typically would be less than two feet deep. Nonetheless, deeper excavations could accompany the construction of larger scale commercial or institutional buildings and emplacement of underground facilities in the flatlands or road cuts in the uplands.

Because one of the major effects of loss of topsoil is sedimentation in receiving waters, erosion control standards are set by the Regional Water Quality Control Board (RWQCB) through administration of the NPDES permit process for storm drainage discharge. The NPDES permit requires implementation of nonpoint source control of stormwater runoff through the application of a number of Best Management Practices (BMPs). These BMPs are meant to reduce the amount of constituents, including eroded sediment, that enter streams and other water bodies. A Storm Water Pollution Prevention Plan (SWPPP), as required by the RWQCB, is required to describe the stormwater BMPs (structural and operational measures) that would control the quality (and quantity) of stormwater runoff. Erosion and sedimentation issues are addressed more fully in Section 3.10, Hydrology, Flooding and Water Resources, of this EIR. Because of these measures and proposed General Plan policies, erosion would not be a substantial hazard under the proposed General Plan and, implementation of the proposed General Plan would have a less than significant impact regarding soil erosion. Together with the Geologic and Seismic Hazard policies and actions discussed above, the measures to prevent erosion mentioned above would help to reduce the potential damage to properties caused by erosion and landslides. Other proposed General Plan policies to reduce this impact include proposals to establish a new hillside residential zone and development review standards and guidelines in areas with steep slopes (Policy 4.2-3 and Action 4.2-2).

REFERENCES

Alameda County, Seismic Safety Element, 1982.

California Department of Conservation, California Geological Survey, *Seismic Hazard Zone Report for the Hayward 7.5-Minute Quadrangle, Alameda County, California, 2003*, <http://gmw.consrv.ca.gov/shmp/MapProcessor.asp>

R.W. Graymer, D.L. Jones, E.E. Brabb. *Geology of the Hayward fault zone: A digital map database*, U.S. Geological Survey Open-File Report 95-597.

United States Geological Survey, *USGS Open House 2000 Field Trip – Hayward Fault Zone, Hayward*, <http://wrgis.wr.usgs.gov/wgmt/sfbay/oh2000-ha-ft.pdf>.

Working Group on California Earthquake Probabilities, *Earthquake Probabilities in the San Francisco Bay Region: 2003-2032*, U.S. Geological Survey Open File Report 03-214, 2003.

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3.10 Hydrology, Flooding, and Water Resources

This section describes the existing hydrological features, including surface waters, groundwater resources, and current flooding conditions in Castro Valley. Included is discussion of the current applicable federal, state, and local regulations and the analysis of the hydrological, water quality, and flooding impacts that could result from implementation of the proposed General Plan.

ENVIRONMENTAL SETTING

PHYSICAL SETTING

Castro Valley is an unincorporated area of Alameda County located in the southern San Francisco Bay hydrologic region. Watersheds within the region are defined by creeks, streams, and other surface water drainages that originate in the upland areas near Mount Diablo and flow downslope toward the Bay. Drainage patterns within Castro Valley are shaped by the region's topography, which consists of steeper areas located along the foothills of the Diablo Range which gradually flattens out onto an alluvial plain.

Castro Valley lies in the San Lorenzo Watershed, which includes Chabot, Castro Valley, Cull, Crow, and Sulphur Creeks. Several unnamed tributaries flow into these creeks. Portions of the creek segments are natural, concrete-lined, earthen, and/or within a closed conduit (culvert) as shown in Figure 3.10-1. San Lorenzo, Chabot, and Castro Valley Creeks have been improved over the years to convey adequate flows to avoid or reduce flooding. As a result of dam construction, several ponds are present at Cull, San Lorenzo and Chabot Creeks, which serve as detention basins for the County's flood control system. Natural ponds also occur within some of the creeks, such as the unnamed tributaries to San Lorenzo Creek. There is minor drainage to San Leandro Creek and Lake Chabot from some parts of the Planning Area, but, as shown, Castro Valley's creeks primarily flow into San Lorenzo Creek, which eventually drains into San Francisco Bay.

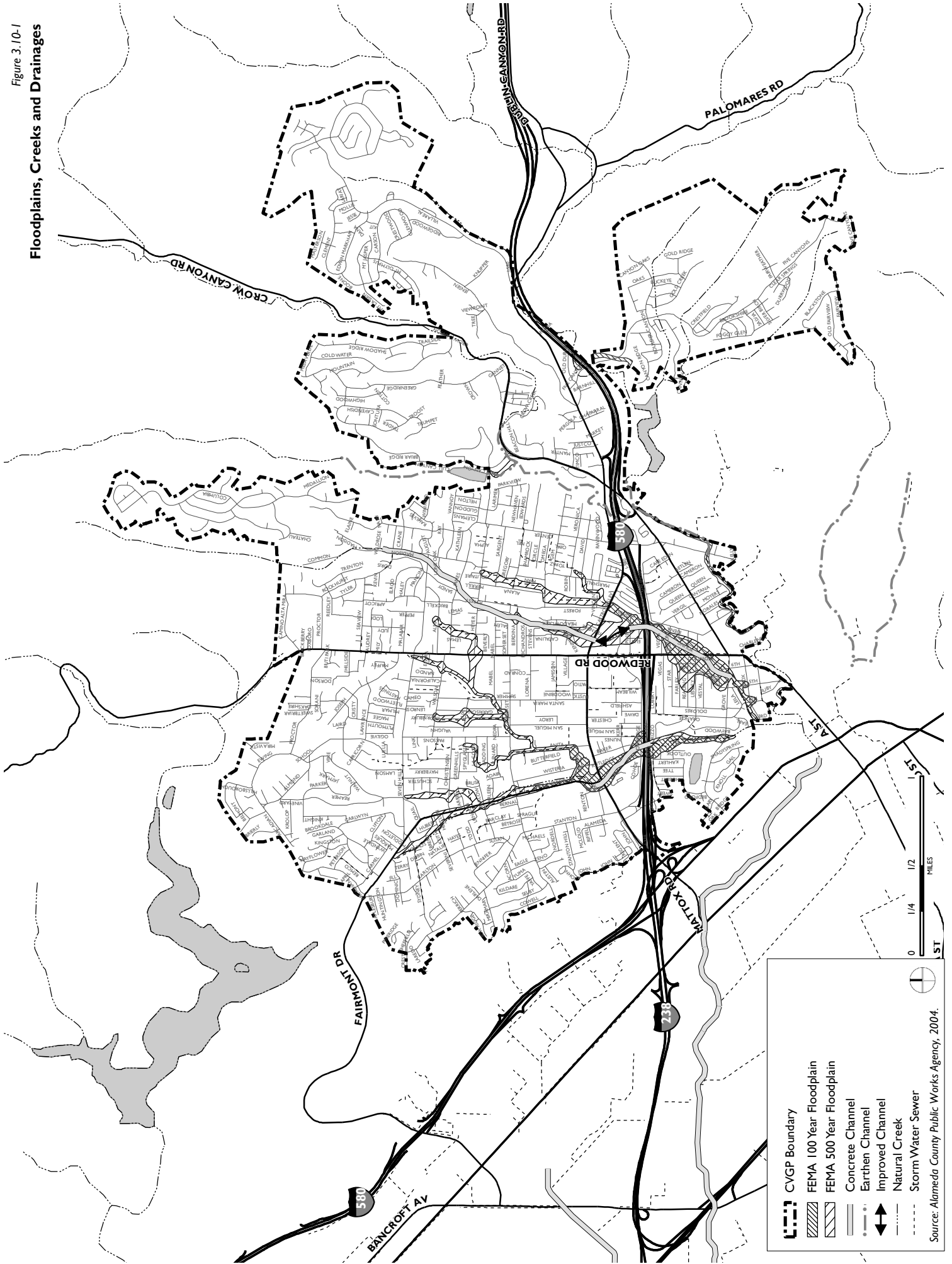
Surface Water Quality

Pollutant sources discharging into the creeks in Castro Valley include both point and nonpoint discharges. A point source is any discernible, confined, and discrete conveyance (e.g., a pipe discharge) of pollutants to a water body from such sources as industrial facilities or wastewater treatment plants. Nonpoint pollutant sources are sources that do not have a single, identifiable discharge point but are rather a combination of many sources.

Point sources in the General Plan area include discharges through pipelines and other discharges that drain into creeks. These are permitted discharges that are subject to prohibitions by regulatory agencies, water quality requirements, periodic monitoring, annual reporting, and other requirements designed to protect the overall water quality of the creeks and eventually the Bay.

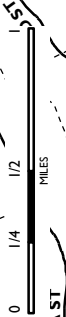
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Figure 3.10-1
Floodplains, Creeks and Drainages



	CVGP Boundary
	FEMA 100 Year Floodplain
	FEMA 500 Year Floodplain
	Concrete Channel
	Earthen Channel
	Improved Channel
	Natural Creek
	Storm Water Sewer

Source: Alameda County Public Works Agency, 2004.



A nonpoint source can be stormwater runoff from land that contains, for example, petroleum from parking lots, pesticides from farming operations, or sediment from soil erosion. San Lorenzo Creek is listed as impaired for the pollutant diazinon from urban runoff and storm sewers (RWQCB, 2003a), which indicates the flow of pollutants such as pesticides from agricultural lands into the creek through runoff and sewer lines.

Groundwater

Castro Valley is underlain by the Castro Valley groundwater basin (No. 2-8) within the San Francisco Bay hydrologic region. The basin is three square miles in area, bounded on the east by the San Lorenzo Creek and by the Hayward Fault on the west. The basin extends from Lake Chabot in the north to the intersection of Jackson Street with U.S. Highway 238 in the south. San Lorenzo Creek and its tributaries principally drain the basin and discharge to San Francisco Bay. The principal water bearing units within the basin are Pleistocene alluvial deposits including clays, silts, sands, and gravels. Groundwater quality in the basin is characterized by bicarbonates with calcium and sodium as the predominant cations. Uses of the groundwater should generally be restricted to non-potable purposes (DWR, 2004).

Castro Valley, Crow Canyon, and Cull Canyon are free groundwater areas that are replenished by direct infiltration and percolation of rainfall (approximately 18 to 24 inches annually), stream flow excesses of applied irrigation water and by subsurface inflow from adjacent foothills. These groundwater areas form the principal sources of recharge for the confined groundwater area of the East Bay Plain. Data on the number and yield of wells in the Castro Valley area is limited; the very few existing wells are principally domestic (Alameda County, 1985). Flooding

Flood-prone areas are generally located in topographic lows and in close proximity to shorelines, streams and creeks. Castro Valley lies in the Flood Zone 2 of the Alameda County Flood Control and Water Conservation District (ACFCWCD). Flooding could result from dam or reservoir failure and/or storm runoff from upstream watersheds or local areas. Dams and reservoirs in Castro Valley (on Cull and San Lorenzo Creeks) are relatively small and pose less extensive safety hazards (due to potential failure) than larger dams in the County. The dam failure inundation hazard map⁴⁴ for Castro Valley shows inundation areas for Cull and San Lorenzo Creeks (ABAG, 2006). Flood hazards resulting from stormwater runoff have been largely addressed through flood control projects by the ACFCWCD. Most drainage systems are adequate to carry runoff from a 10-year storm and a 15-year storm. During larger storms, flooding could occur primarily as sheet flow in streets and along stream channels (Alameda County, 1985).

Flood zone mapping by the Federal Emergency Management Authority (FEMA) indicates that the Castro Valley area is most prone to flooding along Chabot and Castro Valley Creeks. As shown on Figure 3.10-1, areas around the concrete and improved channels of the creeks in the

⁴⁴ The State Government Code requires owners to prepare inundation maps for all dams, which on failure would result in death or personal injury (Alameda County, 1985).

southern portion of Castro Valley are designated as 100-year flood plains,⁴⁵ and areas farther from the creeks and around the closed channels in the northern portion of Castro Valley are designated as 500-year flood plains. However, there are other creeks and culverts in the area that could experience localized flooding during large storm events.

REGULATORY SETTING

San Francisco Bay Regional Water Quality Control Board

Under the Clean Water Act (CWA) of 1977, the U.S. Environmental Protection Agency (USEPA) seeks to restore and maintain the chemical, physical, and biological integrity in the nation's waters. The CWA authorizes the USEPA to implement water quality regulations. The National Pollutant Discharge Elimination System (NPDES) program under section 402(p) of the CWA controls water pollution by regulating stormwater discharges into the waters of the U.S. California has an approved state NPDES program. The USEPA has delegated authority for water permitting to the California State Water Resources Control Board (SWRCB), which has nine regional boards. The San Francisco Bay Regional Water Quality Control Board (RWQCB) regulates water quality in Castro Valley.

San Francisco Bay Basin Plan

The RWQCB has prepared the San Francisco Bay Basin Plan (1995) that establishes water quality objectives and implementation programs to meet the stated objectives and to protect the beneficial uses of the Bay waters. The Basin Plan contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the region and describes beneficial uses of major surface waters and their tributaries. The beneficial uses for the water bodies in the project area are presented in Table 3.10-1.

Table 3.10-1: Beneficial Uses for Water Bodies in the Project Area

<i>Beneficial Uses</i>	<i>Water Bodies</i>	
	<i>San Francisco Bay, South Basin</i>	<i>San Lorenzo Creek</i>
Coldwater		•
Ocean, Commercial, and Sport Fishing	•	
Estuarine Habitat	•	
Freshwater		•
Groundwater		•
Industrial Service Supply	•	
Fish Migration	•	•
Municipal		•
Navigation	•	
Preservation of Rare and Endangered Species	•	

⁴⁵ A flood plain is an area near a river or creek that is prone to flooding. 100-year and 500-year flood plains are areas that are estimated to flood once in 100 and 500 years respectively.

Table 3.10-1: Beneficial Uses for Water Bodies in the Project Area

Beneficial Uses	Water Bodies	
	San Francisco Bay, South Basin	San Lorenzo Creek
Water Contact Recreation	•	•
Noncontact Recreation	•	•
Shellfish Harvesting	•	
Spawning		•
Warm water		•
Wildlife Habitat	•	•

Source: RWQCB, 1995

Total Maximum Daily Load

Section 303(d) of the CWA requires each state to identify water bodies or segments of water bodies that are “impaired” (i.e., not meeting one or more of the water quality standards established by the state). These waters are identified in the Section 303(d) list as waters that are polluted and need further attention to support their beneficial uses. Once the water body or segment is listed, the state is required to establish Total Maximum Daily Load or TMDL for the pollutant causing the conditions of impairment. TMDL is the maximum amount of a pollutant that a water body can receive and still meet water quality standards. Typically, TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The intent of the 303(d) list is to identify water bodies that require future development of a TMDL to maintain water quality.

In accordance with Section 303(d), the RWQCB has identified impaired water bodies within its jurisdiction, and the pollutant or stressor responsible for impairing the water quality. Within the project area, the RWQCB has designated the lower San Francisco Bay as an impaired water body. Pollutants that contribute to this impairment are chlordane, DDT, diazinon, dieldrin, dioxin compounds, exotic species, furan compounds, mercury, nickel, polychlorinated biphenyls. The potential sources of the pollutants listed are non-point sources, atmospheric deposition, ballast water, industrial and municipal point sources, resource extraction, atmospheric deposition, and natural sources (RWQCB, 2003a). As stated earlier, the RWQCB has identified San Lorenzo Creek as impaired for pollutant diazinon from urban runoff and storm sewers.

Construction Permitting

Construction activities on one acre or more are regulated by the RWQCB and are subject to the requirements of the NPDES General Permit for Discharges of Stormwater Runoff Associated with Construction Activity (General Construction Permit). The SWRCB established the General Construction Permit for the purpose of reducing impacts to surface waters that may occur due to construction activities. The project sponsor would be required to apply for the General Construction Permit that requires the preparation and implementation of a stormwater pollution prevention plan (SWPPP). The SWPPP is prepared before project

construction begins and includes specifications for best management practices (BMPs) that would be implemented during construction. BMPs are measures undertaken to control degradation of surface water by preventing soil erosion or the discharge of pollutants from the construction area. Additionally, the SWPPP describes measures to prevent or control runoff after construction is complete and identifies procedures for inspecting and maintaining facilities or other project elements. Required elements of a SWPPP include:

1. Site description addressing the elements and characteristics specific to the site,
2. Descriptions of BMPs for erosion and sediment controls,
3. BMPs for construction waste handling and disposal,
4. Implementation of approved local plans,
5. Proposed post-construction controls, and
6. Non-stormwater management.

The RWQCB has identified BMPs in the *California Storm Water Best Management Practice Handbook* (2003) to effectively reduce degradation of surface waters to an acceptable level. The NPDES permit of the Alameda Countywide Clean Water Program covers unincorporated portions of Alameda County, including Castro Valley. Any proposed development or grading activities would be required to comply with the permit requirements to control stormwater discharges from the construction site (see Alameda County discussion below).

Any development or construction activities that involve excavation and trenching in areas with shallow groundwater would require dewatering and would be subject to the RWQCB construction dewatering permit requirements. Dewatering operations are regulated under state requirements for stormwater pollution prevention and control. Discharge of non-stormwater from a trench or excavation that contains sediments or other pollutants to sanitary sewer, storm drain systems, creek bed (even if dry), or receiving waters is prohibited. Discharge of uncontaminated groundwater from dewatering is a conditionally exempted discharge by the RWQCB. However, the removed water could potentially be contaminated with chemicals released from construction equipment or sediments from excavation. Therefore, disposal of dewatering discharge would require permits either from the RWQCB for discharge to surface creeks and groundwater or from local agencies for discharge to storm or sanitary sewers. The RWQCB lists non-stormwater discharge controls specifically for dewatering operations (RWQCB, 2003b), including compliance with certain provisions in the permit such as treatment of the flows prior to discharge. The discharge of groundwater generated during dewatering to the sanitary sewer or storm drain system requires authorization of and required permits from the Alameda County Public Works Agency, the applicable regulatory agency for the Plan area. Discharge of water resulting from dewatering operations would also require an NPDES Permit, or a waiver (exemption) from the RWQCB, which would establish discharge limitations for specific chemicals (if they occur in the dewatering flows).

Alameda County Flood Control and Water Conservation District

The Alameda County Flood Control and Water Conservation District (ACFCWCD-Zone 2) is responsible for maintaining drainage facilities in Castro Valley. Zone 2 has over 80 miles of natural creeks including Cull, Crow, Bolinas, Norris, Eden, Hollis, and Palomares Creeks. Stormwater flows from these creeks in the hills to storm drains, channels, and pipelines in Castro Valley and Hayward, where it is then conveyed to San Lorenzo Creek, and eventually discharged to San Francisco Bay (ACFCWCD, 2006).

Construction and operation of new projects would be required to comply with requirements concerning drainage issues as a condition of receiving a drainage permit from ACFCWCD.

Alameda County Planning Department

As discussed in previous sections, Alameda County is concurrently updating its Resource Conservation, Open Space, and Agriculture (ROSA) elements. These elements will guide land use policies in the Castro Valley General Plan, which must reinforce and be consistent with the County ROSA. The updated ROSA will replace existing documents, including the 1966 Scenic Route Element, 1973 Open Space Element, 1977 Specific Plan for Areas of Environmental Significance, and the 1994 Conservation Element.

The ROSA elements include a variety of policies that would, if adopted, be applicable to the hydrology and water quality within Castro Valley. Many of these policies may also be relevant to Castro Valley's air quality and biological resources, discussed in Sections 3.5 (Biological Resources) and 3.8 (Air Quality) of this EIR:

Alameda County Public Works Agency

The Grading and Permits Division at the Alameda County Public Works Agency (ACPWA) administers the following ordinances (ACPWA, 2004):

- **Floodplain Management Ordinance:** This ordinance regulates development within those areas designated as flood hazard zones by the Federal Emergency Management Agency. The ordinance also establishes various flood protection design standards.
- **Grading Ordinance:** The purpose of this ordinance is to monitor construction projects in order to control sedimentation in the streams and creeks and, ultimately, the Bay.
- **Stormwater Management and Discharge Control Ordinance:** This ordinance establishes a County program of procedures and controls in response to the federal Clean Water Act.
- **Watercourse Protection Ordinance:** This ordinance regulates development on watercourses on private property. It provides for a permanent riparian way to assist in maintaining the delicate balance of the waterway ecosystem. The purpose of the ordinance is to safeguard and preserve watercourses, protect lives and property, prevent damage due to flooding, protect drainage facilities, control erosion and sedimentation, restrict discharge of polluted materials and enhance recreational and beneficial uses of watercourses.

The ordinances listed above may trigger specific permits or approvals necessary for any specific proposed construction or developmental projects.

Alameda Countywide Clean Water Program

The Alameda Countywide Clean Water Program (ACCWP) is a multi-jurisdictional program whose member agencies include Alameda County, the ACFCWCD, and Alameda County cities.⁴⁶ The RWQCB issued a NPDES permit (Permit No. CAS0029831) to the ACCWP that applies to Castro Valley and other unincorporated areas of Alameda County by Order 97-030 on February 19, 1997, and modified by Order No. 99-049 on July 21, 1999. The most recent Order R2-2003-021 for waste discharge requirements was adopted on February 19, 2003.

The permit contains requirements to prevent stormwater pollution and to protect and restore creek and wetland habitat. The member agencies have developed performance standards to clarify the requirements of the stormwater pollution prevention program, adopted stormwater management ordinances, conducted extensive education and training programs, and reduced stormwater pollutants from industrial areas and construction sites (ACCWP, 2002). In Castro Valley, the ACCWP administers the stormwater program to meet the CWA requirements by controlling pollution in the local storm drain sewer systems.

The ACCWP prepared the 2001 Stormwater Quality Management Plan that is effective through June 2008 (ACCWP, 2001). This plan describes the ACCWP's approach to reducing stormwater pollution. In conjunction with the stormwater discharge permit adopted by the RWQCB, the plan is designed to enable the ACCWP member agencies to meet CWA requirements. The plan provides a framework for protection and restoration of creeks and watersheds in Alameda County in part through effective and efficient implementation of appropriate control measures for pollutants. The plan addresses the following major program areas: regulatory compliance, focused watershed management, public information/participation, municipal maintenance activities, new development and construction controls, illicit discharge controls, industrial and commercial discharge controls, monitoring and special studies, control of specific pollutants of concern, and performance standards (ACCWP, 2001). New development and construction controls in the plan would apply to the project. The plan recommends tasks to implement source, site design, post-construction stormwater treatment and hydro-modification controls⁴⁷ (ACCWP, 2001).

Construction activities associated with implementation of the proposed General Plan would be subject to the NPDES permit requirements for stormwater management and discharges. The ACCWP NPDES permit also incorporates updated state and federal requirements related to the quantity and quality of post-construction stormwater discharges from new development and redevelopment projects.

⁴⁶ http://www.cleanwaterprogram.org/aboutus_home.htm

⁴⁷ Hydro-modification is alteration of the natural flow of water through a landscape.

C.3 Permit Requirements

The NPDES permit includes Provision C.3 that governs storm drain systems and regulates post-construction stormwater runoff. The provision requires new development and redevelopment projects to incorporate treatment measures and other appropriate source control and site design features to reduce the pollutant load in stormwater discharges and to manage runoff flows. All projects, regardless of size, should consider incorporating appropriate source control and site design measures that minimize stormwater pollutant discharges to the maximum extent practicable. New development and significant redevelopment projects that are subject to Provision C.3 include commercial, industrial or residential developments that create or one acre or more of impervious areas and significant redevelopment⁴⁸ projects on previously developed sites that result in the total addition or replacement of 10,000 square feet or more of impervious surface (reduced from one acre [43,560 sq.ft.] as of August 15, 2006. (ACCWP, 2003).

In addition to implementing treatment measures and appropriate source control and site design measures under the NPDES permit, applicable projects must meet specific conditions aimed at reducing stormwater flows and pre-project pollutant levels, to the maximum extent possible. (ACCWP, 2003) The C.3 provision requires preparation of a hydrograph modification management plan (HMP). An HMP is prepared to ensure that post-project runoff does not exceed estimated pre-project discharge rates and/or durations, in cases where increased stormwater discharge rates and/or durations will result in increased potential for erosion or other adverse effects (e.g., flooding and habitat loss).

IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

The proposed General Plan would have a significant effect on the environment with respect to hydrology and water quality issues if its implementation would:

- violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality;
- substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level;
- substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or offsite or that would substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site;

⁴⁸ “Redevelopment” is defined as a project on a previously developed site that results in the addition or replacement of impervious surface. The permit requires that in the case of a significant redevelopment project that would result in an increase of, or replacement of, more than 50 percent of the impervious surface of a previously existing development, and the existing development was not subject to stormwater treatment measures, the entire project be included in the treatment measure design.

- 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;
- place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map;
- place within a 100-year flood hazard area structures that would impede or redirect flood flows;
- expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or
- expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.

METHODOLOGY & ASSUMPTIONS

The following section provides an impact analysis for the buildout phase of the General Plan and discusses the thresholds listed above to determine the impact significance. The impacts analysis also discusses the significance of the changes from the existing conditions as a result of the project.

SUMMARY OF IMPACTS

Construction and post-construction activities associated with implementation of the General Plan could result in specific stormwater drainage, water quality, and flooding impacts, including dewatering, increased nonpoint pollutant discharges, and alterations to drainage patterns by increasing impervious surface areas. These impacts are considered less than significant given the regulatory requirements and standards to which existing and future development must comply. Additionally, General Plan polices have been proposed to ensure potential effects remain less than significant. Each impact is discussed in detail below followed by the proposed General Plan policies that apply to each impact.

IMPACTS AND MITIGATION MEASURES

Construction Period Impacts due to Increased Construction Activity

- 3.10-1 Implementation of the proposed General Plan would cause increased construction activity, which could violate water quality standards or waste discharge requirements and substantially degrade water quality. (*Less than Significant*)

Construction of new development and redevelopment envisioned by the Plan could include site clearing and grading activities with excavation and soil stockpiling. These activities would generate loose, erodable soils that, if not properly managed, could be washed into surface water by rain or by water used during grading operations or construction site management. Earthmoving and stockpiling would also expose soil to wind effects. Soil erosion and exposure would cause excess sediment loads and siltation in waterways and could affect the water quality of local creeks, including San Lorenzo Creek – the primary drainageway from Castro Valley to

San Francisco Bay. Additionally, construction activities typically involve fuels, paints, solvents, and other chemicals that, if not managed properly, could get washed into stormwater and waterways. Unregulated, this would be a significant impact.

The General Plan primarily proposes infill development on sites that are already developed or under-developed in and around the Central Business District (CBD) and through the subdivision of existing single-family lots that already have one dwelling unit. Minimal new development is anticipated on undeveloped land due to existing regulatory and physical restrictions (e.g., Urban Growth Boundary established by Measure D, limited site access, and existing zoning requirements) and steep slopes and sensitive areas protected by the proposed Biological Resources Overlay Zone. Overall, construction involving some level of earthwork that could loosen erodible soils and involve related pollutant chemicals would occur to some extent.

Consistent with existing requirements, construction of future projects on sites over one acre would comply with the existing General Construction Permit requirements (pursuant to the NPDES General Permit for Discharges of Stormwater Runoff Associated with Construction Activity), which are specifically aimed at reducing impacts to surface waters that may occur due to construction activities. As outlined in the *Regulatory Framework* discussion in this chapter, the General Construction Permit requires preparation of a stormwater pollution prevention plan (SWPPP) prior to the start of construction activities, and the SWPPP would incorporate best management practices (BMPs) to control degradation of surface water by preventing soil erosion, controlling and ensuring careful handling of chemicals and fuels during construction, and controlling the discharge of pollutants from construction areas. Examples of typical construction BMPs include scheduling or limiting activities to certain times of the year, installing sediment barriers such as silt fence and fiber rolls, maintaining equipment and vehicles used for construction, tracking controls such as stabilizing entrances to the construction site, and developing and implementing a spill prevention and cleanup plan. Non-stormwater management procedures include installing specific discharge controls during the activities such as paving operations, vehicle and equipment washing and fueling.

Also consistent with existing regulations, construction activities would be required to comply with the Alameda County's Grading Ordinance, Stormwater Management and Discharge Control Ordinance, and Watercourse Protection Ordinance, as well as any additional specific permits or approvals necessary for specific construction or development activities.

Proposed Castro Valley General Plan Policies that Further Reduce the Impact

Compliance with the above existing regulations and permitting requirements ensure that potential erosion and pollutant discharges would have a less than significant impact on area waterways during construction. The proposed General Plan includes draft policies and actions that support existing water quality regulations and requirements and also propose that the County adopt new standards that would limit development on steep slopes. Compliance with all existing regulations and permitting requirements and the supporting draft policies in the proposed General Plan will help to ensure that construction period water quality impacts resulting from erosion and pollutant discharge would remain less than significant.

Action 4.2-2 Establish a new zoning district for Hillside Residential that includes new standards and guidelines.

Action 10.2-1: Continue to ensure that all construction and development activities comply, to the maximum extent practicable, with all applicable San Francisco Bay RWQCB stormwater and water quality requirements, which may include but not be limited to, preparation and implementation of a SWPPP and implementation of effective BMPs for applicable construction and development activities.

Action 10.2-2: Ensure that all construction and development activities obtain all applicable permits and approvals from the County and the ACFCWD, as required through adherence to existing ordinances regarding grading and erosion control, stormwater management and discharge control, and watercourse protection.

Action 10.2-3: Dedicate adequate resources to ensure effective and timely inspection and monitoring for compliance with all water quality requirements, permits and ordinances throughout construction activities, especially for activities in hillside areas, large sites, creekside properties, and within the proposed Biological Resources Overlay Zone.

Action 10.2-4: Ensure that public-sector construction and maintenance projects conform to the same standards as private projects. Ensure that stormwater quality requirements are included in plans and contract specifications for public construction projects. *[From the Alameda County Stormwater Quality Master Plan: New Development and Construction Controls, Component Objective #3.]*

Action 10.2-5: Restrict grading and construction activities to dry periods, to the extent feasible. During the wet weather period from mid-October through mid-March, require additional erosion prevention measures when issuing grading permits; except where Public Works Agency and Flood Control District emergency and maintenance action necessary to protect life and property is required.

Mitigation Measures

No mitigation measures are required.

Construction Period Impacts due to Subsurface Activities

3.10-2 Excavation and dewatering that would occur during increased construction activity resulting from implementation of the proposed General Plan could substantially degrade surface water quality and interfere with groundwater recharge. (*Less than Significant*)

Excavation of soils or existing underground structures (such as foundations and utilities), as well as the construction of new structures with subsurface foundations or open trenches, can often intercept shallow groundwater. When this occurs, dewatering (the removal of groundwater by pumping) is conducted to lower groundwater levels and dry the area for construction. Depending on the nature of construction activities and the site-specific

subsurface water levels, existing groundwater could flow into excavations that extend below the groundwater table. Dewatering the excavation is a common practice employed to reduce groundwater inflow and pumps groundwater out of the excavation and to the surface, where it is then discharged, typically to either the storm drain or sanitary sewer. Water extracted during dewatering could contain chemical contaminants, be contaminated by chemicals released from construction equipment or become sediment-laden due to soils loosened during construction activities. Therefore, the discharge could potentially contaminate surface water.

As previously discussed, new development proposed by the General Plan primarily involves infill development as well as new development to a lesser extent on undeveloped land. Overall, it is anticipated that some construction would involve some level of excavation that could require dewatering. Although the depth of the Castro Valley Groundwater Basin is not documented, it is reasonable to consider that it may vary throughout the Plan areas and across specific development sites and could be intercepted by normal excavation activities. Furthermore, groundwater within the basin is known to have chemical contaminants.

Groundwater in the three-square-mile Castro Valley basin is recharged through direct natural infiltration and percolation of rainfall (approximately 18 to 24 inches per year), stream flow excesses of applied irrigation water, and by subsurface inflow of the adjacent foothills. The extent of new development proposed is not expected to require dewatering to levels that would substantially deplete or interfere with groundwater supplies or lower the groundwater table.

Any development or construction activities that require dewatering are subject to the RWQCB construction dewatering permit requirements and the state requirements for stormwater pollution prevention and control. As discussed under *Regulatory Framework* in this chapter, projects would be required to obtain appropriate permits for the disposal of dewatering discharge pursuant to the NPDES Permit (or a waiver or exemption) - either from the RWQCB for discharge to surface creeks and groundwater, or from the Alameda County Public Works Agency for discharge to storm or sanitary sewers. Also consistent with existing regulations, dewatering activities require compliance with all local ordinances regarding activities that could impair water quality during construction, as well as any specific permits or approvals necessary for specific construction or development activities.

Proposed Castro Valley General Plan Policies that Further Reduce the Impact

Existing compliance with the above existing dewatering regulations and permitting requirements ensures that impacts to groundwater and surface water resources would be less than significant. Additionally, the proposed General Plan includes draft policies that support existing ensure less-than-significant water quality impact resulting from dewatering activities. These policies include all the draft actions identified under Impact 3.10-1, plus:

Action 10.2-6 Where applicable, ensure that all construction and development activities adhere to all permitting and regulatory requirements regarding dewatering activities. Specifically, all activities shall comply with state requirements for stormwater pollution prevention and control and obtain a construction dewatering permit or waiver from the RWQCB prior to disposal of dewatering discharge for discharge to surface creeks and groundwater.

In summary, development under the proposed General Plan would not result in a significant impact to the availability of adequate groundwater supplies. Also, compliance with all existing regulations and permitting requirements and the supporting draft policies in the proposed General Plan would ensure less-than-significant construction period water quality impacts associated with excavation and dewatering.

Mitigation Measures

No mitigation measures are required.

Impacts due to Nonpoint Source Pollutant Discharges

3.10-3 New development could occur under the proposed General Plan that would result in additional releases of nonpoint source pollutants into the storm drain system or waterways, which could substantially degrade surface water quality. However, new development is not expected to add substantial sources of nonpoint pollutant runoff. (*Less than Significant*)

New development that could occur under the General Plan could involve or result in increased area, intensity, and/or type of land uses, which could lead to additional nonpoint source pollutant releases to storm drains or waterways (i.e., surface waters, including creeks, streams, lakes, reservoirs, and San Francisco Bay, and groundwater). Nonpoint source pollutants do not have a single, identifiable discharge point but are a combined effect from multiple sources collected primarily in urban runoff. As discussed in Impacts 3.10-1 and 3.10-2, construction activities and the use of related materials, chemicals and fuels during construction could cause soil erosion and sedimentation and cause contaminants to enter the storm drain system and waterways.

Once construction is complete, land use activities may also result in increased pollutants entering the storm drains and waterways. As currently occurs, new development, in particular those that increase impervious area, can allow storm and irrigation runoff to “wash” through motor vehicle fluids (motor oil, brake fluid, power steering fluid), by-products of brake pad dust from motor vehicles, pesticides and fertilizers, pet waste, uncovered trash enclosures, and unauthorized carwash areas. Pollutants and sediments also enter the system as a result of household materials being disposed of through house drains and rainfall on cumulative atmospheric dust collected during non-rainy months on new structures and roadways.

The Stormwater Quality Management Plan (2001) prepared by the Alameda County Clean Water Program (ACCWP) contains strategies for controlling discharge of pollutants from urban runoff flowing into municipal storm drains and waterways. In conjunction with the stormwater discharge permit ordinance adopted by the RWQCB, the plan is designed to enable the ACCWP member agencies (which includes Castro Valley) to meet Clean Water Act (CWA) requirements. The plan provides a framework for the protection and restoration of creeks and watersheds in Alameda County in part through effective and efficient implementation of appropriate control measures. The plan addresses several program areas including new development and construction controls, controls for specific pollutants of concern, and performance standards. Specific tasks include the implementation of source controls, site

design, post-construction stormwater treatment and hydromodification controls, as well as public outreach and monitoring efforts. (ACCWP, 2001).

Development proposed by the General Plan is not expected to result in significant land use changes, types or number of nonpoint pollutant sources compared to existing conditions. Castro Valley would continue to implement measures identified in the Clean Water Program, specifically practices outlined to prevent potential pollutant sources from coming in contact with rainfall and overland storm water flows. Development that would occur with the proposed General Plan would be required to adhere to ACCWP long-term stormwater controls and standards as well as all other existing federal, state and local regulations regarding water quality. Therefore, given the changes envisioned by the General Plan and Castro Valley's adherence to existing regulatory requirements, the impact is considered less than significant.

Proposed Castro Valley General Plan Policies that Further Reduce the Impact

As mentioned above the proposed Biological Resources Overlay Zone (Action 10.2-14) would limit or restrict development close to existing waterways. Other policies and actions that will reduce potential water quality impacts resulting from nonpoint pollutant sources after construction include the following:

Action 10.2-7 Protect surface water quality by reducing the release of nonpoint source pollutants into storm drain system and waterways.

Action 10.2-8: Continue to protect surface water quality by complying with the ACCWP Stormwater Quality Management Plan and require individual projects to prepare site-specific plans to demonstrate incorporation of appropriate source controls, site design strategies, and post-construction stormwater treatments to control and manage stormwater runoff and quality.

Action 10.2-9: Incorporate into all site development review materials to the public, information regarding model and recommended approaches to controlling the quality of surface runoff from urban development.

The proposed policies and actions identified under Impact 3.10-4 will help to ensure that the impact of nonpoint source pollutants is less than significant. Additionally, some of the wastewater policies and actions in the proposed General Plan should contribute to reducing the impact of nonpoint source pollutants on water quality. These include:

Policy 9.4-2 Reduce the need for sewer system improvements by requiring new development to incorporate water conservation measures.

Policy 9.4-3 Reduce the release of contaminants into the water system by requiring new development to minimize storm drain runoff on project sites.

Policy 9.4-4 Work with the East Bay Municipal Utilities District to develop wastewater reclamation programs to supplement the supplies of water available to new and proposed development in the planning area.

Policy 9.4-5 Reduce the need for expanding the capacity of the wastewater collection and treatment system by requiring new development to incorporate water conservation measures such as plumbing fixtures that allow reduced water usage and by educating the public about water conservation techniques.

Policy 9.4-6 Expand programs to replace and repair aging public and private sewer lines and stormwater collection systems to prevent water quality problems and comply with Federal and State requirements.

Action 9.4-1 Work with the Castro Valley Sanitary District to ensure adequate funding for sewer system improvements necessary to avoid public health hazards and maintain water quality in natural areas.

Action 9.4-2 Identify incentives to encourage the use of recycled water.

Action 9.4-3 Adopt an ordinance requiring property-owners to repair or replace deficient private sewer laterals or prove that private sewer lines are in good condition before sale of a property or before a major remodeling project.

In summary, application of existing ACCWP long-term stormwater controls and strategies to the maximum extent practicable and compliance with existing regulatory requirements, as well as adherence to the proposed supporting draft policies in the proposed General Plan would ensure that the impact would remain less than significant.

Mitigation Measures

No mitigation measures are required.

Impacts due to Altered Drainage Patterns / Increased Impervious Surfaces

3.10-4 New development that would occur under the proposed General Plan could alter drainage patterns and increase impervious surfaces, which would reduce infiltration and increase rates and amounts of runoff and pollutant levels. This could result in increased downstream flooding. (*Less than Significant*)

New development generally results in additional pavement and other impervious surfaces (building roofs, parking lots, driveways, etc.) that change natural or existing drainage patterns. Increases in impervious surface areas prevent or slow stormwater infiltration and thus cause increased storm runoff discharge rates and/or flow durations. This increase in runoff discharge rates and flow durations could result in erosion as well as riparian habitat loss along waterways and result in increased flooding. Also, increased impervious surface areas allow for increased nonpoint pollutant flows into storm drains, as discussed in Impact 3.10-3.

The General Plan proposes infill development in areas that are already developed or under-developed, primarily in the CBD. The Plan also proposes infill development through the subdivision of existing single-family lots that already have one dwelling unit. Minimal new development is anticipated on undeveloped land due to existing regulatory (e.g., Urban Growth Boundary established by Measure D, limited site access, and existing zoning

requirements) and steep slopes and sensitive areas protected by the proposed Biological Resources Overlay Zone. Overall, most areas proposed for new development are largely already developed and have substantial pavement, therefore, changes to existing drainage patterns and impervious surfaces as a result of changes proposed by the General Plan are expected to be negligible. Furthermore, the General Plan proposes an increase in pervious land area by introducing a new open space park area in the northwestern part of the Planning Area and converting an existing concrete channel creek segment within the CBD (discussed below under *General Plan Changes*). As a result, there would likely be a net reduction in impervious surfaces with full implementation of the Plan.

As summarized in the *Regulatory Framework* discussion in this chapter, development that would occur under the proposed General Plan is subject to the NPDES permit requirements for stormwater management and discharges, as well as existing state and federal requirements related to the quantity and quality of post-construction stormwater discharges from new development and redevelopment projects. The NPDES permit Provision C.3 governs storm drain systems and regulates post-construction stormwater runoff – specifically through requirements and methods to reduce the amount of impervious surface or to filter polluted runoff before it reaches creek channels or storm drains. Provision C.3 specifies the size, types, and characteristics of new development and redevelopment projects that are required to incorporate treatment measures and other appropriate source control and site design features to reduce the pollutant load in stormwater discharges and to manage runoff flows. All projects, even single family residences⁴⁹ which are normally excluded from Provision C.3 requirements, are to implement the following stormwater treatment measures, controls and features to the maximum extent practicable (ACCWP, 2003):

1. Implement site design/landscape characteristics which maximize infiltration (where appropriate), provide retention or detention, slow runoff, and minimize impervious land coverage, so that post-development pollutant loads from the site have been reduced to maximum extent possible, and
2. For new and redevelopment projects, such as the proposed project, that discharge directly to water bodies listed as impaired (under section 303(d) of CWA), ensure that post-project runoff does not exceed pre-project levels for such pollutants through implementation of the control measures addressed in the Provision C.3, to the maximum extent practicable. (ACCWP, 2003)

To facilitate Condition #2, Provision C.3 also requires preparation of a hydrograph modification management plan (HMP) for certain projects. An HMP ensures that post-project runoff does not exceed estimated pre-project discharge rates and/or durations in cases where increased stormwater discharge rates and/or durations would occur.

General Plan Changes Affecting Pervious Surfaces

⁴⁹ Single family residences not part of a larger common development plan.

As required for current development and redevelopment projects (as applicable), development that would occur with the proposed General Plan would adhere to the regulatory requirements of the NPDES Permit and specifically Provision C.3, to the maximum extent practicable, to reduce impervious surfaces or filter polluted runoff before it reaches creek channels or storm drains. All development also would continue to comply with all other existing federal, state and local regulations regarding stormwater quality and discharge. Therefore, water quality and flooding impacts resulting from the adverse affects of increased impervious surface would be less than significant given compliance with existing regulations and requirements.

Significant changes proposed by the General Plan include designating at least part of the 24-acre EBMUD property in northwest Castro Valley from “Residential Hillside (RI-H)” to “Open Space – Parks (OS-P)”, opening a concrete channel segment of Castro Valley Creek to make it a part of the parks and open space system, as well as establishing the proposed Biological Resources Overlay Zone. The proposed Biological Resources Overlay Zone maps “high priority” areas for limited or restricted development activities or that would warrant special development review. High priority areas include waterways, drainages, large open spaces, steep slopes, and certain riparian habitats and vegetated areas near creeks. The proposed Biological Resources Overlay Zone would effectively reduce the disturbance of undeveloped areas and new impervious surface that could occur without the overlay zone. As shown in **Figure 3.5-2** (see Section 3.5, Biological Resources), high priority areas are proposed in the east, north, and south areas of Castro Valley including along Crow and Castro Valley Creeks. Together, these proposed changes conserve existing natural areas and convert potential and existing impervious surfaces to natural surfaces (turf, riparian vegetation, landscaping, etc.). Additionally, policies proposed in the General Plan (discussed below) include exploring expansion of the existing maximum lot coverage limitations (required by the Alameda County Zoning Code) to lower density residential zones in Castro Valley.

Creeks and Flooding

In addition to the site-specific approaches to reduce post-construction stormwater discharges and pollutant flows, efforts should be made to minimize major impacts to creeks and waterways, such as eroded and destabilized natural creek banks which cause downstream siltation, loss of riparian habitat, and flooding. The County Flood Control and Water Conservation District identifies a number of flood control projects that have been completed within Flood Control Zone 2 (in which Castro Valley exists) since 2001. These projects include silt removal, creek restoration and bank stabilization projects “upstream” (Cull Canyon and Don Castro reservoirs, Crow and Palomares creeks) that have likely reduced the incidence of severe flooding downstream in Castro Valley.

The District reports that recent storms have resulted in stormwater flows over the banks of San Lorenzo Creek. However, anticipated runoff from projects completed during plan implementation is not expected to exceed the capacity of the existing or planned stormwater drainage system (Alameda County, 1985). As of September 2006, the District is preparing a master plan update which will include an assessment of current area flooding conditions and identify specific flood control projects for possible implementation. While Castro Valley may currently experience periodic flooding, it is not anticipated that the level of increased

development proposed by the Plan would exacerbate existing conditions to cause substantial increases in runoff with resultant flooding.

Proposed Castro Valley General Plan Policies that Further Reduce the Impact

To further maintain the less than significant impact, the draft General Plan includes proposed policies and actions that support existing regulations and requirements. In addition to Actions 10.2-4 and 10.2-5 listed above, the County may implement the following policies and actions to address any potential flooding impacts:

Action 10.2-10: Continue to ensure that all new development and redevelopment projects comply, to the maximum extent practicable, with all applicable San Francisco Bay RWQCB stormwater and water quality requirements, specifically requirements and recommendations of Provision C.3 regarding post-construction stormwater runoff.

Action 10.2-11: Follow the Alameda Countywide Clean Water Program's C.3 Stormwater Technical Guidance handbook to ensure that criteria or requirements are met for stormwater control for development less than 10,000 square feet in size, and particular projects that exceed the maximum lot coverage allowance per existing zoning regulations. Stormwater control measures should include, but not be limited to, maximizing pervious surface areas with use of riprap, flow-through permanent planter boxes, pervious pavement with subsurface treatment, detention basins (where appropriate), drains and downspouts flowing to landscaped areas and splash blocks, and any appropriate provisions recommended by ACCWP.

Action 10.2-12: Require new development to comply with the requirements and criteria for stormwater quantity controls established in the Alameda County Hydrology and Hydraulics Criteria Summary (HHCS) to control surface runoff from new development.

Action 10.2-13 Design drainage facilities to meet the County and/or the ACFCWCD's established design criteria and in consideration of existing facilities downstream. Dedicate adequate resources to ensure effective and timely monitoring and maintenance of public drainage facilities, including storm drains, to maintain adequate capacity for peak flows in the area.

Action 10.2-14 Adopt a Biological Resources Overlay Zone that identifies priority areas where development should be limited or restricted due to proximity to existing waterways, drainages, large open spaces, and certain riparian habitats and vegetated areas near creeks, and any other sensitive areas, such as steep slopes and endangered species and their habitats.

Action 10.2-15 Use the ACFCWCD's floodplain controls for Castro Valley when assessing flood risk, as well as ongoing risk after flood control and improvement projects are implemented.

Action 10.2-16 ACFCWCD, along with other agencies and jurisdictions shall identify, conduct feasibility studies, and implement flood control improvement projects, including, but not limited to, creek restoration, regional detention facilities in existing or proposed open space areas and/or parks, dredging existing area dams that are silted-up, and dredging existing facilities for increased capacity and recreation.

Action 10.2-17 Prioritize the use of bioengineering technologies aimed at using plants and natural materials to stabilize and reinforce open waterways and creeks to minimize erosion and siltation downstream.

Action 10.2-18 Establish design guidelines and setback requirements for development on properties that abut creeks and waterways, and require the replanting and restoration of riparian vegetation as part of any discretionary permit. Implement and enforce creek setback requirements for development for properties that abut creeks.

Action 10.2-19 Develop site design review criteria or zoning requirements that increase maximum lot coverage limitations in lower density residential zones to maximize pervious surface areas and vegetation within individual residential lots.

In addition to these Hydrology policies and actions, many of the Biological Resource policies and actions will contribute to reducing the potential for flooding due to development under the proposed General Plan. Refer to Policies 7.1-1, 7.1-5, 7.1-8, 7.1-10, 7.1-11, 7.2-1, 7.2-2, 7.2-4, 7.2-5 and Actions 7.1-2, 7.1-3, 7.2-1, 7.2-5, 7.2-6, 7.2-7 and 7.3-5 listed in Chapter Three, Section Seven, as well as the following:

Policy 7.1-4 Preserve as permanent open space the undeveloped areas designated as open space within planned unit developments.

Policy 7.2-3 Encourage use of natural or nonstructural stormwater drainage systems to the maximum extent feasible on sites outside the Central Business District and Residential Mixed Density Areas. (Reference – Draft ROSA Policy RC-9, Nonstructural Stormwater Drainage)

Action 7.2-4 Develop design criteria for on-site flood control features such as detention and retention ponds and for stream channel improvements that address multiple use objectives. Criteria shall address integrating visual and other multi-use concerns in to the physical design of flood control features and shall encourage use of permeable materials to enhance on-site percolation. (reference – Draft roSa Program 7 - Develop Criteria for Flood Control)

Action 7.3-2 Consider amending the County zoning ordinance to prohibit paving of planter strips.

In summary, compliance with existing NPDES Permit requirements and Provision C.3 conditions to the maximum extent practicable, compliance with all existing regulatory requirements regarding the quality and quantity of stormwater runoff, as well as adherence to

the proposed supporting draft policies in the proposed General Plan would ensure the impact would remain less than significant.

Mitigation Measures

No mitigation measures are required.

Impacts due to Flood Hazard Areas

3.10-5 The proposed General Plan does not propose residential uses or structures within 100-year flood hazard areas, nor would it expose people or structures to significant risk due to failure of a levee or dam. (*Less than Significant*)

As shown in Figure 3.10-1, the 100-year flood hazard areas are mainly the floodplain areas for Chabot and Castro Valley Creeks that are immediately north and south of I-580. The proposed General Plan does not propose new residential development or increased residential densities in these areas, which include an existing residential neighborhood along Redwood Road south of I-580.

As discussed in the Setting section, the dams and reservoirs in Castro Valley (on Cull and San Lorenzo Creeks) are relatively small and pose less extensive safety hazards (due to potential failure) than larger dams in the County. The General Plan would not significantly change the existing conditions and expose people or structures to significant risk due to failure of a levee or a dam. The impacts due to development in Flood Hazard Areas would be less than significant.

Proposed Castro Valley General Plan Policies that Further Reduce the Impact

To further maintain the less than significant impact due to development in the 100-year floodplains, the proposed General Plan includes draft policies and actions that support existing regulations and requirements. In addition to the previously mentioned draft hydrology, wastewater and biologic resources polices and actions that would contribute to a reduction in the impact of flooding, the Plan proposes the following actions that would further reduce potential flooding impacts due to development in the 100-year flood hazard area:

Action 10.2-20 Do not permit new development in the floodway of a 100-year flood with the exception of development that has been determined to have no impact as identified in the Alameda County development code.

Action 10.2-21 Require that new structures located within the fringe of a 100-year flood plain be sited and designed to be flood resistant. Prohibit or discourage flood protection measures that inhibit flood flows.

Mitigation Measures

No mitigation measures are required.

Impacts due to Inundation by Seiche, Tsunami, or Mudflow

The General Plan does not propose development that would expose people and building to significant risk due to inundation by seiche, tsunami, or mudflow. (*Less than Significant*)

Castro Valley is at risk of seismic activity, but because the Planning Area is located inland from the San Francisco Bay and the fault structures in the Bay Area displace laterally, it is highly likely that the influence of any ocean-borne tsunami wave would dissipate prior to reaching the area. Seiches, large waves caused by seismic or atmospheric disturbances, form in enclosed bodies of water. Because the lakes or reservoirs located in Castro Valley are relatively small, they have little risk of experiencing or sustaining a seiche; therefore risk of inundation due to a seiche is less than significant. Mudflows, similar to landslides, form on sloping terrain and could, therefore, create a risk to development in parts of Castro Valley. The policies and actions the Plan proposes to reduce the risk from landslide hazards would also reduce the potential risk from mudflows. The discussion of soil erosion and land slide impacts in Section 3.9: Seismic, Soils, and Landslide Hazards discusses reviews these proposed policies and actions.

Proposed Castro Valley General Plan Policies that Further Reduce the Impact

To further maintain the less than significant impact of inundation risks, the proposed General Plan includes draft policies and action that support existing regulations and requirements for geologic, seismic and landslide hazards, including:

Policy 10.3-1 Design and construct structures to withstand ground shaking forces of a minor earthquake without damage, of a moderate earthquake without structural damage, and of a major earthquake without collapse. Design and construct critical and essential structures and facilities to remain standing and functional following a major earthquake.

Action 10.3-1 Require geotechnical studies prior to development approval in geologic and/or seismic hazard areas identified in Figure 3.9-1, Soils and Seismic Hazards, or as identified by future studies by federal, state, and regional agencies. Require or undertake comprehensive geologic and engineering studies for critical structures regardless of location.

Action 10.3-2 Adopt and amend as needed updated versions of the California Building Code (CBC) so that optimal earthquake-protection standards are used in construction and renovation projects.

Action 10.3-3 Establish a seismic retrofit program that would encourage property owners to, on a voluntary basis, seismically retrofit residential properties containing four or more units by waiving building permit fees.

Action 10.3-5 Adopt and amend as needed a Hazards Mitigation Plan in order to maintain eligibility for full federal assistance in the event of a natural disaster, per the requirements of the federal Disaster Mitigation Act of 2000.

Mitigation Measures

No mitigation measures are required.

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U.S. Environmental Protection Agency, Clean Water Act, 1977

3.11 Hazardous Materials

This section of the EIR assesses potential adverse environmental, health, and safety impacts that could be caused by exposure to hazardous materials resulting from implementation of the proposed General Plan. Potential hazards include disturbing contaminated soil or groundwater and handling hazardous materials. Hazardous materials are chemicals or substances that pose hazards to human health or safety, or to the environment, particularly if released. Hazardous wastes are a subset of hazardous materials that pose potential hazards to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

ENVIRONMENTAL SETTING

PHYSICAL SETTING

Castro Valley, while primarily residential, also contains some properties with light industrial, commercial, and medical services, where current or historical activities may pose potential environmental and health and safety risks. These risks include accidents involving vehicles transporting hazardous materials or hazardous wastes (particularly along Castro Valley Boulevard and Interstate 580), accidental spills or leaks associated with seismic events, and improper use, handling, storage, transport, and disposal of hazardous materials. In addition, improper disposal of household-generated hazardous waste, such as used motor oil, paints, and solvents can also impact water quality in local waterways. Response to hazardous materials spills is provided by the Alameda County Department of Environmental Health (ACEH), which, in coordination with the Alameda County Fire District, provides emergency response services for the City.

Releases, leaks, or disposal of chemical compounds, such as petroleum hydrocarbons, on or below the ground surface can lead to contamination of underlying soil and groundwater. Disturbance of a previously contaminated area through grading or excavation operations could expose the public to health hazards from physical contact with contaminated materials or hazardous vapors. Improper handling or storage of contaminated soil and groundwater can further expose the public to these hazards, or potentially spread contamination through surface water runoff or air-borne dust. In addition, contaminated groundwater can spread down gradient, potentially contaminating subsurface areas of surrounding properties.

Areas where historic or on-going activities have resulted in the known or suspected release of hazardous materials to soil and groundwater or to the air, as identified by the San Francisco Bay Regional Water Quality Control Board and U.S. Environmental Protection Agency (U.S. EPA), are shown in Figure 3.11-1 and listed in Table 3.11-1. These sites are designated as either Leaking Underground Fuel Tanks (LUFT) sites, air emission sites, or SLIC (Spills, Leaks, Investigations, and Cleanups) sites, which are non-fuel contamination sites.

Within Castro Valley, the majority of the sites with contamination are clustered around the commercial area of Castro Valley Boulevard. This contamination may be the results of underground storage tank (UST) releases, spills, or accidental releases. As shown in Table 3.11-

1, there are 20 LUFT sites, 37 hazardous materials handling sites, one facility listed for air emissions, and one SLIC facility within Castro Valley.

Table 3.11-1: Location of LUFT, Air Emissions, and SLIC Sites within the Planning Area

Name	Location
<i>LUFT sites¹</i>	
Anthony Auto Service	19592 Center St.
VIP Service Stations	3889 Castro Valley Blvd.
Unocal	18950 Lake Cabot Rd.
Shell Xtra Oil Co.	3495 Castro Valley Blvd.
BP	3515 Castro Valley Blvd.
Merritt Tire Sales	3430 Castro Valley Blvd.
Unocal	20405 Redwood Rd.
Valley Car Wash	3369 Castro Valley Blvd.
Walt's Auto Tech	2896 Castro Valley Blvd.
Quality Tune UP	2780 Castro Valley Blvd.
Arco	2770 Castro Valley Blvd.
Varni Property	2691 Castro Valley Blvd.
BP	2504 Castro Valley Blvd.
Beacon	22315 Redwood Rd.
Chevron	2416 Grove Way
Chevron	5269 Crow Canyon Rd.
Jiffy Lube	2492 Castro Valley Blvd.
Chevron	2920 Castro Valley Blvd.
Stop-n-Save	20570 Stanton Ave.
Castro Valley Auto House	20697 Park Way
<i>Hazardous Material Handling Sites²</i>	
John Lawrence Trucking	4214 Lawrence Dr.
Industrial Weed Control	17647 Trenton Dr.
Segotta Trucking, Inc.	17868 Trenton Dr.
Chevron	5269 Crow Canyon Rd.
Dry Clean USA	3937 E. Castro Valley Blvd.
Rite Aid Corp.	3848 Castro Valley Blvd.
SK Specialties	19840 Center St.
Don Guffey Trucking	4166 David St.
The Dry Cleaner	3300 E. Castro Valley Blvd.

Table 3.11-1: Location of LUFT, Air Emissions, and SLIC Sites within the Planning Area

Caltrans	21195 Center St.
Chevron Station	3005 Grove Way
Dons Body Shop	2944 Grove Way
Marshall Steel Cleaners	20457 Redwood Rd.
Sherwin Williams	20650 Redwood Rd.
Mirandes One Hour Cleaners	21120 Redwood Rd.
Walgreens 101	3382 Castro Valley Blvd.
Rocky Auto Body	3142 Castro Valley Blvd.
Express Photo SVC	3028 Castro Valley Blvd.
Chevron Station	2920 Castro Valley Blvd.
Lamar and Co. Trucking Services Inc.	21054 Francis St.
Dry Clean Club of America	2960 Castro Valley Blvd.
Equilon Enterprises	2724 Castro Valley Blvd.
Service Maker of Hayward	2830 Castro Valley Blvd.
James Deangelis	2661 Renton Way, No. K
East Bay Magnetic Imaging	20130 Lake Chabot Rd.
Pac Bell	2610 Northbridge Ave.
Valley Cleaners of Castro Valley	2676 Castro Valley Blvd.
Tosco 30470	2445 Castro Valley Blvd.
RJ Quick Clean	2522 Castro Valley Blvd.
Tosco Northwest Co. No. 02486	2504 Castro Valley Blvd.
Castro Valley Unocal 76	2425 Castro Valley Blvd.
Tosco Northwest Co. No. 11131	21494 Foothill Blvd.
Walgreens 2401	21463 Foothill Blvd.
Castro Valley Auto House	20697 Park Way
Don Williams & Son Auto Repair	N. 6th St.
George Barrett	2439 Grove Way
Robert C. Borris MD	2457 Grove Way Ste. 103A
	<i>Air Emission Site³</i>
Tool Network, Inc	3659 Santa Maria Ct.
	<i>SLIC Sites⁴</i>
Castro Valley Auto House	20697 Park Way

Table 3.11-1: Location of LUFT, Air Emissions, and SLIC Sites within the Planning Area

Note:

1. RWQCB listed Leaking Underground Fuel Tanks.
 2. Facilities regulated by the U.S. EPA that handle hazardous waste. (Not shown on figure)
 3. Facilities regulated by the U.S. EPA that produce and release pollutants into the air.
 4. RWQCB listed Spills, Leaks, Investigations, and Cleanups sites.
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Sources: SWRCB Geotracker website: <http://geotracker.swrcb.ca.gov>; EPA Enviro/RCRA website: <http://www.epa.gov/enviro/index.html>; Dyett and Bhatia. 2006

It should also be noted that according to the EPA's Resource Conservation and Recovery Act information site, there are 37 facilities in Castro Valley that have reported hazardous waste activities, of which 23 are small quantity generators, 3 are large quantity generators, and 6 are transporters. The majority of these sites are auto-oriented commercial uses or dry-cleaning facilities.

REGULATORY SETTING

The U.S. Environmental Protection Agency (U.S. EPA) is the federal administering agency for hazardous waste regulations. State agencies include the California Environmental Protection Agency (Cal EPA), Department of Toxic Substances Control (DTSC), the San Francisco Bay Regional Water Quality Control Board (RWQCB), the Air Resources Board (ARB), and the Bay Area Air Quality Management District (BAAQMD). Locally, the Alameda County Department of Environmental Health (ACEH) is responsible for hazardous materials regulation enforcement, and the Alameda County Fire Department acts as first responder to hazardous material incidents in Castro Valley.

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. Government Code section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

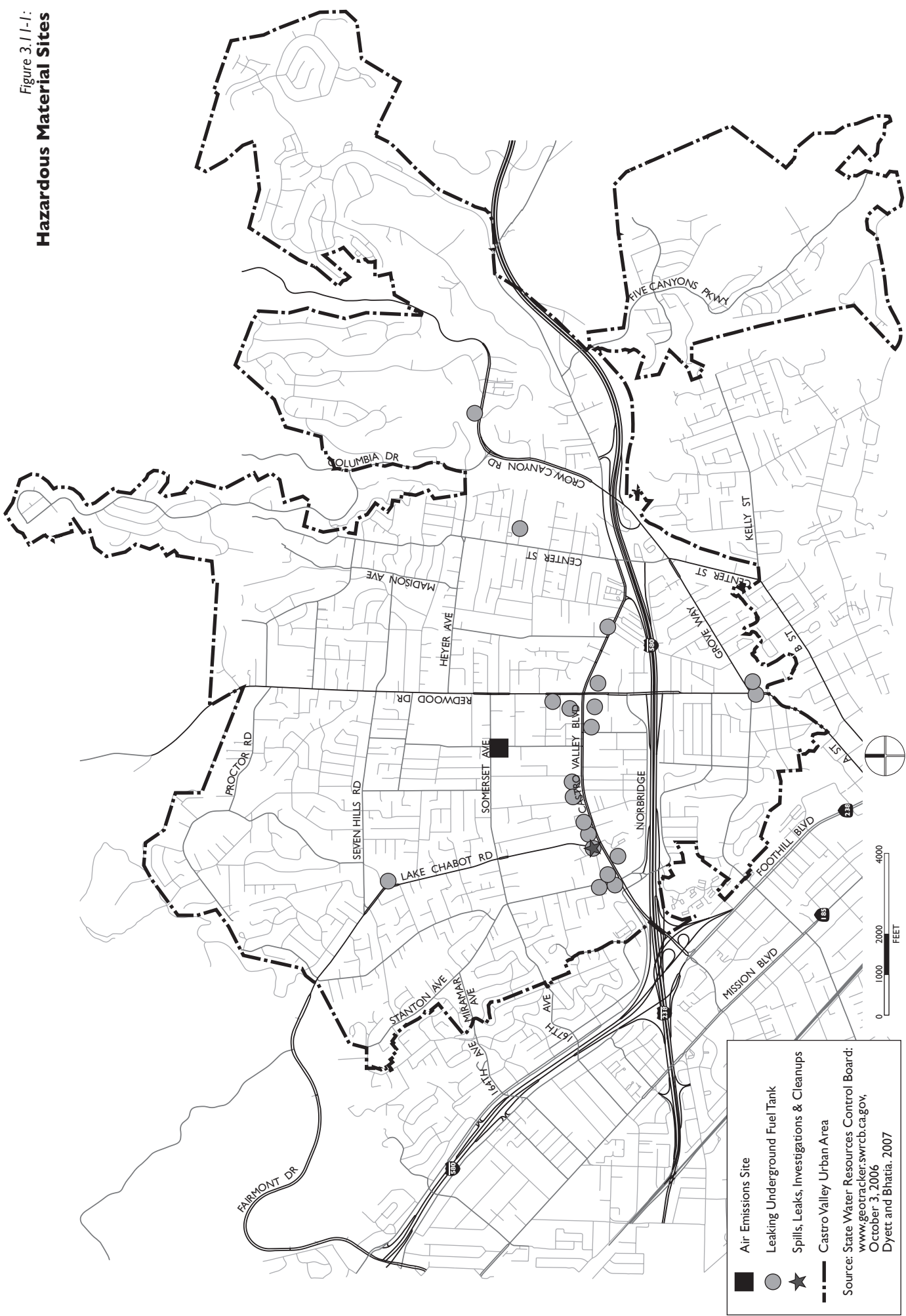
Castro Valley is located within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (RWQCB). The RWQCB is authorized by the Porter-Cologne Water Quality Control Act of 1969 to protect the waters of the State. The RWQCB may act as lead agency and provide oversight for sites where the quality of groundwater or surface waters is threatened. A permit from the RWQCB would be required for discharge of contaminated water (including contaminated groundwater from investigation and/or remediation activities or dewatering during construction) to storm drains, surface water, or land. A permit from the local sanitary treatment facility would be required if water were discharged to the sanitary sewer.

Castro Valley is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), the local enforcement agency for air quality regulations, including asbestos and lead paint abatement and removal activities.

The California Toxic “Hot Spots” Information and Assessment Act of 1987 requires that industry provide information to the public on emissions of toxic air contaminants and their impact on public health. The Act requires the Air Resources Board (ARB) and local air quality districts, including the Bay Area Air Quality Management District for Alameda, to inventory

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Figure 3.11-1:
Hazardous Material Sites



Air Emissions Site
 Leaking Underground Fuel Tank
 Spills, Leaks, Investigations & Cleanups
 Castro Valley Urban Area

Source: State Water Resources Control Board:
www.geotracker.swrcb.ca.gov,
 October 3, 2006
 Dyett and Bhatia, 2007

sources of over 200 toxic air contaminants, to identify high priority emission sources, and to prepare a health risk assessment for each of these priority sources.

The Alameda County Department of Environmental Health (ACEH) is the Certified Unified Program Agency (CUPA) that enforces state and local regulations pertaining to hazardous waste generators and risk management prevention programs. In addition, the ACEH acts as lead agency to ensure proper remediation of leaking underground petroleum storage tank sites and certain other contaminated sites. ACEH also enforces hazardous materials and waste management regulations within Castro Valley.

The Alameda County Waste Management Authority (Authority) is a public agency formed in 1976 by a Joint Exercise of Powers Agreement among the County of Alameda, each of the fourteen cities within the county, and two sanitary districts that provide refuse and recycling collection services. The Authority is responsible for preparation of the Alameda County Integrated Waste Management Plan and Alameda County Hazardous Waste Management Plan. It manages a long-range program for development of solid waste facilities and offers a wide variety of other programs in the areas of source reduction and recycling, market development, technical assistance and public education.

The Alameda County Source Reduction and Recycling Board (Recycling Board) was created in 1990 by the voters of Alameda County through a ballot initiative, "Measure D". The eleven-member board includes six citizen experts appointed by the Alameda County Board of Supervisors and five elected officials from the Alameda County Waste Management Authority. The Recycling Board is responsible for programs that promote source reduction, residential and commercial recycling, recycled product procurement and market development.

StopWaste.Org is the Alameda County Waste Management Authority and the Alameda County Source Reduction and Recycling Board operating as one public agency. Stopwaste.org provides educational opportunities to businesses and residents which address not only the proper use, storage, and disposal of hazardous materials, but also ways to reduce or eliminate the use of hazardous materials, including the use of non-toxic or less-toxic alternatives.⁵⁰

Occupational Safety

Cal/OSHA and Fed/OSHA are the agencies responsible for ensuring worker safety in the handling and use of chemicals in the workplace. Within the State, Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations. Cal/OSHA standards are generally more stringent than federal regulations.

Under the authority of the Occupational Safety and Health Act of 1970, Fed/OSHA has adopted numerous regulations pertaining to worker safety (29 CFR). These regulations set standards for safe workplaces and work practices, including the reporting of accidents and occupational injuries. Some Fed/OSHA regulations contain standards relating to hazardous materials handling, including workplace conditions, employee protection requirements, first

⁵⁰ Stopwaste.org Website: <http://stopwaste.org/home/index.asp?page=1>. October 5, 2006.

aid and fire protection, as well as material handling and storage. Because California has a federally-approved OSHA program, it is required to adopt regulations that are at least as stringent as those found in 29 CFR.

Cal/OSHA regulations (8 CCR) concerning the use of hazardous materials in the workplace require employee safety training, safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces hazard communication program regulations, which contain training and information requirements, including procedures for identifying and labeling hazardous substances, and communicating hazard information relating to hazardous substances and their handling. The hazard communication program also requires that Material Safety Data Sheets (MSDS) be available to employees and that employee information and training programs be documented. These regulations also require preparation of emergency action plans (escape and evacuation procedures, rescue and medical duties, alarm systems, and training in emergency evacuation).

Both federal and State laws include special provisions for hazard communication to employees in research laboratories, including training in chemical work practices. The training must address methods of safe handling of hazardous materials, Material Safety Data Sheets, emergency response equipment and supplies, and building emergency response plans and procedures. Chemical safety information must be available. Specifically, more detailed training and monitoring is required for the use of carcinogens, ethylene oxide, lead, asbestos, and certain other chemicals listed in 29 CFR. Emergency equipment and supplies, such as fire extinguishers, safety showers, and eyewashes, must also be kept in accessible places.

Cal/OSHA and Fed/OSHA regulations (29 CFR and 8 CCR) include extensive, detailed requirements for worker protection applicable to any activity that could disturb asbestos-containing materials, including maintenance, renovation, and demolition. These regulations are designed to ensure that persons working near the maintenance, renovation, or demolition activity are not exposed to asbestos.

Hazardous Materials Emergency Response

Pursuant to the Emergency Services Act, California has developed an Emergency Response Plan to coordinate emergency services provided by federal, State, and local governmental agencies and private persons. Response to hazardous materials incidents is one part of this plan. The plan is administered by the California Office of Emergency Services. The Office of Emergency Services coordinates the responses of other agencies, including EPA, the CHP, the Department of Fish and Game, the RWQCB, the Bay Area Air Quality Management District, and the ACEH.

Hazardous Materials Reporting/Business Plan Program

State codes require all businesses to disclose the use, handling, or storage of hazardous materials, and/or waste. This information is essential to the City's fire fighters, health officials, planners, elected officials, workers, and their representatives so that they can plan for and respond to potential exposures to hazardous materials. In addition, it provides information to the community on chemical use, storage, handling, and disposal.

California Accidental Release Prevention Program (CalARP)

The goal of the CalARP program is to reduce the likelihood and severity of consequences of extremely hazardous materials releases. Any business which handles Regulated Substances (including Federally listed Extremely Hazardous Substances and State listed Acutely Hazardous Materials) is required to prepare a Risk Management Plan. The Risk Management Plan describes current and past practices and releases, what the impact of releases may be, and what they do or plan to do to prevent releases and minimize their impact if one occurs.

Hazardous Waste Generator

The Toxics Management Division (TMD) ensures the safe and legal handling, storage, and disposal of hazardous waste. Businesses that generate any quantity of hazardous waste are considered hazardous waste generators and subject to TMD oversight. Hazardous wastes including obsolete or expired chemicals, waste oil, coolant, parts cleaner, photo developer, printing inks, dry cleaning solvent, paint and spray booth filters. There are 37 hazardous waste sites dispersed throughout Castro Valley.

Small Quantity Generator (SQG): An enterprise that produces 220 to 2200 pounds per month of hazardous waste. As the largest number of hazardous waste generators, SQGs include automotive shops, dry cleaners, photographic developers, and many other small businesses.

Large Quantity Generator (LQG): A facility generating more than 2200 pounds of hazardous waste per month. Such generators produce about 90 percent of the nation's hazardous waste, and are subject to all RCRA requirements.

Aboveground Petroleum Storage Tanks

The Aboveground Petroleum Storage Act was enacted to protect the state's people and natural resources from aboveground petroleum storage tank spills. Facilities storing petroleum products (gasoline, diesel, lubricants, etc.) in aboveground tanks with a capacity greater than 1,320 gallons or the total capacity for the facility greater than 1,320 gallons are subject to the Act. Owners or operators of aboveground tanks are required to file a storage statement with the California Regional Water Quality Control Board and prepare and implement a Spill Prevention Control and Countermeasure (SPCC) Plan in accordance with Federal Regulations.

Underground Storage Tanks

Federal laws and regulations relating to underground storage tanks used to store hazardous materials (including petroleum products) require that underground storage tank owners and operators register their tanks with the Environmental Protection Agency (EPA) or delegated agencies. Federal regulations require extensive remodeling and upgrading of underground storage tanks, including installation of leak detection systems. Tank removal and testing procedures are specified by the regulations.

State laws relating to underground storage tanks include permitting, monitoring, closure, and cleanup requirements. Regulations set forth construction and monitoring standards, monitoring standards for existing tanks, release reporting requirements, and closure requirements. Old tanks must eventually be replaced. All new tanks must be double-walled, with an interstitial monitoring device to detect leaks. All soil and groundwater contamination must be cleaned up. The regulations for this program are contained in Chapter 6.7, Division 20 of the Health and Safety Code and Subchapter 16 of Title 23 of the California Code of Regulations, California Underground Storage Tank Regulations, and are implemented by the Regional Water Quality Control Board (RWQCB). Underground storage tank permitting is handled through local governmental agencies. There are 20 open Leaking Underground Fuel Tanks (LUFT) sites dispersed throughout Castro Valley.

EPA's Aerometric Information Retrieval System (AIRS)

The AIRS database is maintained by the EPA and provides information on facilities that produce and release air pollutants. The AIRS data comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, refineries, universities, and other facilities both large and small. One such facility is located in Castro Valley.

The Spills, Leaks, Investigations, and Cleanups (SLIC) Section

The Spills, Leaks, Investigations, and Cleanups (SLIC) Section of the RWQCB oversees activities at non-UST sites where soil or groundwater contamination have occurred. Many of these sites are former industrial facilities and dry cleaners, where chlorinated solvents were spilled, or have leaked into the soil or groundwater. The SLIC Program is set up so that reasonable expenses incurred by the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCBs) in overseeing water quality matters can be recovered from the responsible party. Facilities are assigned a site specific program cost account to track expenditures. One reported SLIC facility is in Castro Valley.

Polychlorinated Biphenyls

PCBs are organic oils that were formerly placed in many types of electrical equipment, including transformers and capacitors, primarily as electrical insulators. Years after their widespread and commonplace installation, it was discovered that exposure to PCBs may cause various health effects, and that PCBs are highly persistent in the environment.

In 1979, EPA banned the use of PCBs in most new electrical equipment and began a program to phase out certain existing PCB-containing equipment. The use and management of PCBs in electrical equipment is regulated pursuant to the Toxic Substances Control Act (40 CFR). These regulations generally require labeling and periodic inspection of certain types of PCB equipment and set forth detailed safeguards to be followed in disposal of such items.

Asbestos

Asbestos, a naturally-occurring fibrous material, was used as a fireproofing and insulating agent in building construction before such uses were banned by EPA in the 1970s. Asbestos can cause lung diseases in persons exposed to its airborne fibers. Because it was widely used prior to the discovery of its health effects, asbestos may be found in a variety of building materials and components including walls, ceilings, floors (tile), fireproofing, and pipe insulation.

Federal and State laws and regulations also pertain to building materials containing asbestos. Inhalation of airborne fibers is the primary mode of asbestos entry into the body, making friable (easily crumbled) materials the greatest health threat. For this reason, the substance is regulated both as a hazardous air pollutant under the Clean Air Act and as a potential worker safety hazard under the authority of the Federal Occupational Safety and Health Administration (Fed/OSHA). These regulations prohibit emissions of asbestos from asbestos-related manufacturing, demolition, or construction activities; require medical examinations and monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers; and require notice to federal and local governmental agencies prior to beginning renovation or demolition that could disturb asbestos. In the San Francisco Bay Area, the agencies with primary responsibility for asbestos safety are the Bay Area Air Quality Management District and the California Division of Occupational Safety and Health Administration (Cal/OSHA). Some State regulations on asbestos are more stringent than federal regulations. For example, California requires licensing of contractors who conduct abatement activities.

IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

Implementation of the General Plan would have a potentially significant impact if it were to result in one or more of the following:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.
- Be located in an area covered by an airport land use plan (or, where such a plan has not been adopted, within two miles of a public airport, or a public use airport), if it would result in a safety hazard for people residing or working in the project area;

- Be located within the vicinity of a private airstrip, if it would result in a safety hazard for people residing or working in the project area; and
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

METHODOLOGY & ASSUMPTIONS

The analysis considered existing hazardous materials conditions in Castro Valley plus the applicable regulations and guidelines. Implementation of the proposed General Plan would promote development and growth within Castro Valley. Much of this development would occur on in-fill sites including redevelopment of underdeveloped sites, especially in and around the Central Business District. Sites with historic industrial and commercial activities which have contaminated or could contaminate the soil or groundwater and thereby impact current or future construction workers, employees, or residents have been identified.

SUMMARY OF IMPACTS

Implementation of the proposed General Plan is anticipated to result in a moderate increase in Castro Valley's population, particularly in areas that have been in predominantly non-residential use. In addition, the Plan proposes creation of a new Professional-Medical District in the area near Castro Valley Boulevard that includes the Eden Medical Center. This could expose people or the environment to hazardous materials or hazardous waste associated with future development. However, because Castro Valley is now and will continue to be primarily residential in nature, has no areas zoned for industrial uses, and because hazardous materials use and disposal is heavily regulated, the likelihood of conflicting uses, or potential exposure to hazardous materials or conditions, would be limited. Impacts related to routine transport, use, or disposal of hazardous materials; or accidental release of hazardous materials in Castro Valley would also be less than significant because existing federal, State, and City regulations require that these hazards be investigated during the project planning process and measures to eliminate them be incorporated in the project design prior to completing the project approval process. There are no sites within Castro Valley that are on the DTSC's Hazardous Waste and Substances Site List - Site Cleanup (Cortese List).

Prior to approval of final maps and improvement plans for any development project within Castro Valley, plan review and approval by the Alameda County Fire District is required. Internal roadways and ingress/egress for each site would be required to meet State and local standards regarding turning radius, road width, and emergency vehicle access, thereby preventing potential impacts to emergency evacuation or response. Castro Valley is not located within two miles of a private or public airstrip or within an area covered by an airport land use plan.

IMPACTS AND MITIGATION MEASURES

Impact

3.11-1 Activities attributed to development under the General Plan could increase the transportation, use, and disposal of hazardous materials within Castro Valley. (*Less than Significant*)

Build-out of Castro Valley under the proposed Plan is projected to increase the number of residents by about 5,000. This additional population would likely result in the increased usage

of common household hazardous materials, such as cleaning solutions, pool supplies, pesticides, herbicides, solvents, paints, and vehicle lubricants and fuel.

The Plan could also result in the development of about 524,000 square feet of commercial space, about two-thirds of which would occur through redevelopment of existing sites. Although Eden Medical Center is not projecting any increase in employment, the Plan proposes the creation of a Hospital-Medical Office District around the hospital. This could increase the amount of hazardous waste that is generated and disposed of in the community. There is no existing industrial land use designation in Castro Valley and the Plan does not propose such activity. The Plan does propose to designate a few areas for General Commercial Use which could include automotive and equipment repair, printing, and some other activities that might use hazardous chemicals. Common chemical used in commercial and office settings include cleaners, toners, correction fluid, paints, and maintenance materials. The health effects associated with using these materials for commercial or residential purposes are generally not as significant as industrial uses as they are used in much smaller quantities.

Improper disposal of hazardous materials, such as those indicated above, could increase the risk of exposure for residents through direct contact or by adversely affecting soil, groundwater, or surface waters.

As previously indicated, 37 facilities in Castro Valley report handling hazardous materials. Twenty-three of these facilities are small quantity generators and three are large quantity generators. The majority of these facilities are auto-oriented commercial uses or residential community services such as dry-cleaning facilities. These types of uses are not widely considered incompatible or hazardous in nature. The ACEH requires businesses storing sizeable quantities of hazardous materials to file an annual hazardous materials business plan which establishes incident prevention measures, hazardous materials handling protocols, and emergency response and evacuation procedures. Although the risk of releases cannot be fully eliminated, any future handling or generation of hazardous materials would not be expected to create a public health or environmental hazard if adequate safety precautions are employed in accordance with existing federal state and local laws and regulations.

3.11-2 In addition, any new hazardous materials transportation, use, and disposal would be subject to state and federal hazardous materials laws and regulations. The transport of hazardous materials is regulated by the U.S. Department of Transportation. Hazardous materials use, storage, and disposal would be subject to hazardous materials programs administered by ACEH. Future development under the General Plan would likely be subject to regulatory programs such as the Hazardous Materials Business Plan, aboveground and under-ground storage tank programs, and Resource Conservation and Recovery Act (RCRA) hazardous waste generator programs.

Hazardous materials policies contained in the General Plan would further ensure appropriate siting of uses, soils testing to identify contaminated sites, while also increasing public awareness of the proper use, storage, and disposal of hazardous materials and ways to reduce or eliminate the use of hazardous materials. Compliance with all federal, state and local regulations, and General Plan Programs and Policies would ensure that implementation of the proposed General Plan would not cause an adverse effect on the environment with respect to the use, storage, or

disposal of general household and commercial hazardous substances generated from future development or uses; therefore, less than significant impacts are anticipated.

General Plan Policies that Reduce the Impact

Action 10.4-1 Educate businesses and residents (for example through information on the County's website, etc.) about the proper use, storage, and disposal of hazardous materials, but also ways to reduce or eliminate the use of hazardous materials, including the use of non-toxic or less-toxic alternatives.

Action 10.4-2 Amend County zoning regulations and project review processes to ensure that uses involving the use, storage, or transport of highly flammable, toxic, and/or highly water-reactive materials are located at an adequate distance from other uses, and regulate these uses to minimize the risk of on-site or off-site personal injury and property damage. These uses should be located where they will not be adversely affected by disasters such as major fires, floods, or earthquakes.

Action 10.4-3 Coordinate with the Alameda County Department of Environmental Health, Hazardous Materials Division and other appropriate regulatory agencies during the review process of all proposals for the use of hazardous materials or those involving properties that may have toxic contamination such as petroleum hydrocarbons, asbestos, and lead.

Action 10.4-4 Require applicants of projects in areas of known hazardous materials occurrences such as petroleum hydrocarbon contamination, USTs, location of asbestos rocks and other such contamination to perform comprehensive soil and groundwater contamination assessments in accordance with regulatory agency testing standards, and if contamination exceeds regulatory action levels, require the project applicant to undertake remediation procedures prior to grading and development under the supervision of appropriate agencies such as Alameda County Department of Environmental Health, Department of Toxic Substances Control, or regional Water Quality Control Board.

Mitigation Measures

No mitigation measures are required.

Impact

3.11-2 Development on land impacted by petroleum hydrocarbons or other chemical constituents, or resulting in the demolition of existing buildings containing hazardous building materials, could potentially expose people or the environment to hazardous conditions. (*Less than Significant*)

No land within the Planning Area is on the DTSC's Hazardous Waste and Substances Site List - Site Cleanup (Cortese List). Development of parcels that are impacted by petroleum hydrocarbons from USTs or other chemical constituents could expose individuals to hazardous conditions. If buildings are erected over contaminated materials, volatile contaminants, such as

benzene, may migrate from soil and groundwater via soil gases and enter indoor air spaces through foundation cracks, potentially posing health risks to future workers, patrons, employees, and residents.

Future development in Castro Valley could require the demolition of existing buildings. Buildings constructed prior to 1979 often include building materials containing asbestos. Any such buildings would need appropriate abatement of identified asbestos prior to demolition. Asbestos-containing material is regulated both as a hazardous air pollutant under the federal Clean Air Act and as a potential worker safety hazard under the authority of Cal-OSHA. The Bay Area Air Quality Management District (BAAQMD) Enforcement Division should be consulted prior to commencing demolition of a building containing asbestos building materials. Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable Federal regulations regarding hazardous air pollutants, including asbestos.

In addition, lead-based paint could become separated from building materials during the demolition process. Separated paint can be classified as a hazardous waste and would need to be disposed of accordingly. Lead-based paint flakes can pose a hazard to workers and adjacent sensitive land uses. Both Federal and Cal-OSHA regulate all worker exposure during construction or demolition activities which involves lead-based paint. All projects involving exposure to lead-based paint are required to comply with regulations and guidelines pertaining to abatement of and protection from exposure to lead-based paint. Demolition must comply with Title 17, California Code of Regulations, Division 1, Chapter 8: Accreditation, Certification and Work Practices for Lead-Based Paint and Lead Hazards and Title 8, California Code of Regulations, Section 1532.1 Cal/OSHA Construction Safety Orders, Lead. Title 17 includes work practice standards related to the evaluation and abatement of lead in public and residential buildings. Title 8 covers construction work where an employee may be exposed to lead, including metallic lead, inorganic lead compounds, and organic lead.

Development within Castro Valley would be required to comply with Section 19827.5 of the California Health and Safety Code, Title 17 and Title 8 of the California Code of Regulations, all other applicable Federal, State, and local State regulations, and with the City's General Plan hazardous materials policies and actions listed above. Full compliance would reduce potential exposure of people and the environment to hazardous materials associated with development or demolition of impacted properties to a less-than-significant level.

Mitigation Measures

No mitigation measures are required.

REFERENCES

Alameda County Environmental Health Division. Website: <http://www.acgov.org/aceh/hazard.htm>. July 29, 2006.

California Code of Regulations, Title 17 , Division 1, Chapter 8, Accreditation, Certification, and Work Practices for Lead-based Paint and Lead Hazards

California Code of Regulations, Title 8 , Division 1, Chapter 4.4, Section 1532.1, Cal/OSHA Construction Safety Orders, Lead

Hazardous Waste and Substances Sites (Cortese) List Website:
http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm, July 29, 2006

San Francisco Bay Regional Water Quality Control Board. Geotracker website:
<http://geotracker.swrcb.ca.gov>. July 28, 2006.

Stopwaste.org. Website: <http://stopwaste.org/home/index.asp?page=1>. October 5, 2006

U.S. Environmental Protection Agency: Conservation and Recovery Act. EPA Enviro/RCRA website: <http://www.epa.gov/enviro/index.html>. July 28, 2006

3.12 Cultural Resources

This section evaluates the proposed Castro Valley General Plan's potential impact on cultural resources. These include prehistoric and historic sites, structures, and districts, or any other physical evidence associated with human activity considered important to a culture, subculture, or community for scientific, traditional, religious, or any other reason. For analytical purposes, cultural resources are typically divided into three categories: archaeological resources, historic resources, and contemporary Native American resources.

Archaeological resources are places where human activity has measurably altered the earth or left deposits of physical remains. Archaeological resources may be either prehistoric (before the introduction of writing in a particular area) or historic (after the introduction of writing). The majority of such places in this region are associated with either Native American or Euroamerican occupation of the area. The most frequently encountered prehistoric and early historic Native American archaeological sites are village settlements with residential areas and sometimes cemeteries; temporary camps where food and raw materials were collected; smaller, briefly occupied sites where tools were manufactured or repaired; and special-use areas like caves, rock shelters, and sites of rock art. Historic archaeological sites may include foundations or features such as privies, corrals, and trash dumps.

Historic resources are standing structures of historic or aesthetic significance that are generally 50 years of age or older. In California, historic resources usually considered for protection tend to focus on architectural sites dating from the Spanish Period (1529-1822) through the early years of the Depression (1929-1930). Historic resources are often associated with archaeological deposits of the same age.

Contemporary Native American resources, also called ethnographic resources, can include archaeological resources, rock art, and the prominent topographical areas, features, habitats, plants, animals, and minerals that contemporary Native Americans value and consider essential for the preservation of their traditional values.

The following cultural, historical, and ethnographic baseline information is extracted from a variety of sources including an overview document prepared by the Northwest Information Center at Sonoma State University (Northwest Information Center, 2006).

ENVIRONMENTAL SETTING

Historic and cultural resources include buildings and neighborhoods of historic architectural significance, places of special historic or archaeological interest, and other features that have special value to the community. In the following sections, the terms prehistoric resource, archaeological resource, and Native American resource are used synonymously, referring to a type of resource that dates back to pre-Euroamerican contact. Historic (or historic-period) resources date back no farther than the time of Euroamerican contact.

PHYSICAL SETTING

Archaeological Resources

The first inhabitants of the Castro Valley area were the native Ohlone, or Coastanoan (meaning “coast people”) tribes, who lived in the area several hundred years before European influence arrived in the late 1700s. At the time of Euroamerican contact, the Native Americans who lived in the area spoke *Chochenyo*, one of the Coastanoan languages (Levy, 1978).

The central basin of the San Lorenzo watershed, surrounded by rolling hills and steep canyons, made the area attractive to the first Native American settlers who lived by hunting and fishing. Review of historical literature and maps indicates numerous archaeological resources within the Planning Area including one prehistoric archaeological site (CA-ALA-60) that has been found eligible for listing in the National Register of Historic Places. This site, at the confluence of San Lorenzo and Crow Canyon creeks near the present intersection of I-580, is important because of its location along a major trail between San Francisco Bay and the Amador and Livermore valleys to the east. Archaeologists consider the site to be one of the oldest that has been excavated in the Bay Area dating from 4630-5530 B.C.⁵¹

Native American cultural resources in this part of Alameda County have been found on ridges, mid-slope terraces, and adjacent to seasonal and perennial watercourses. The Planning Area includes the type of environmental settings and features associated with known sites. For this reason, there is a high likelihood that unrecorded Native American cultural resources exist in the Castro Valley Planning Area and that additional prehistoric-period archaeological resources could be identified as development occurs under the proposed Plan.

Architectural Resources

European settlement in Castro Valley began in the 1830s when Don Guillermo Castro, a land surveyor from San Jose, acquired a 28,000-acre land grant for the area that includes present-day Hayward, San Lorenzo, Castro Valley and Cull, Crow and Palomares Canyons. Castro used the property to graze cattle, sheep and horses, but lost the land due to gambling debts. There are no known dwellings or features that remain from the Hispanic period.

In the mid-19th century, with the start of the California Gold Rush in 1848 and completion of the transcontinental railroad in 1869, there was increased settlement of the Castro Valley area and subdivision of the land. The climate and soils created optimal conditions for cultivating vegetables and fruit orchards while proximity to the redwood groves that flourished in the nearby East Bay hills stimulated the development of logging and sawmill operations.⁵²

During the first half of the 20th century, chicken ranching was one of Castro Valley’s primary industries and the long, narrow lots that were created to accommodate this agricultural industry left its mark on the city’s development pattern. These lots are now primarily

⁵¹ Alameda County Planning Department, *Re-circulated Draft Environmental Impact Report, Boundary Creek Subdivision*, August, 2005, pp. 6-15-16.

⁵² Lucille Lorge, et. al, *Images of America: Castro Valley*, Arcadia Publishing, 2005.

concentrated in the northern portion of the planning area, west of Redwood Road. After World War II, the chicken ranching business slowed and Castro Valley's open agricultural fields and orchards were replaced with tract housing.

Most of Castro Valley's 19th century structures and some of those built in the first half of the 20th century were demolished during the building boom following World War II and continuing through the 1970s. A few of the community's older structures remain and some have been officially recognized as historic sites. The County has commissioned an inventory of potentially historic sites in Castro Valley and surrounding unincorporated areas. The National Register does not, at present, list any Castro Valley properties.⁵³ In addition to prehistoric archaeological site (CA-ALA-60) mentioned above, two bridges—the Grove Street Bridge (1915) and the Crow Creek Bridge (1913)—have been found eligible for listing on the National Register.

One site in the Planning Area is listed on the California Register of Historical Resources as a State Historic Landmark. The Redwood Schoolhouse Site (SHL-0776-0000), 19200 Redwood Road, between James and Alma streets, was the location of the first public school in Castro Valley and was part of the original Don Castro Land Grant. In 1866, pioneer settler Josiah Grover Brickell donated it for 'educational purposes only' and paid the salary of the teacher who taught the children in the one-room schoolhouse by day and farmhands by candlelight at night.⁵⁴

Two other properties have been identified as State Points of Historic Interest (but are not listed on the California Register).

- **Stanton House**, 1620 Strobridge Avenue, c. 1860 (State Point of Historic Interest #028). The Stanton House was built by the Mattox family and purchased in 1868 by Michael Stanton, who once owned 500 acres of land along Castro Valley Boulevard. Streets in Castro Valley named for the Stanton family include Anita Avenue, John Street, and Stanton Avenue. The house, which is the oldest surviving residence in Castro Valley, was moved to its current location from its original site on Lake Chabot Road in 1975.
- **Herrick-Strobridge House**, 21026 Wilbeam Avenue, 1894 (State Point of Historic Interest #037). Built for A.F. Herrick in 1894, this was the home of E.K. Strobridge, a State Senator and son of James Harvey Strobridge, who supervised construction on the Central Pacific line through the Sierra Mountains before coming to the Castro Valley area with a contract to build a railroad from Niles to Oakland.

The following list identifies some additional Castro Valley sites and structures, a few of which are included on the State Historical Resources Inventory (SHRI). Some of these sites may meet the criteria for inclusion in the State Register.

- **Palomares School Site (1868)** A one-room school was built on land that was originally part of Guillermo Castro's Rancho San Lorenzo. William Hayward squatted on the

⁵³ The results of the County's historic resources survey were not available at the time this report was prepared.

⁵⁴ http://ohp.parks.ca.gov/default.asp?page_id=21388

land about 1850. He declined Castro's offer to sell him the site and, instead, bought about 80 acres in what is now downtown Hayward. In 1955, after a larger three-room school was built across the creek from the original site, the school building was leased to the Chanticleer's Theatre Group, who remodeled it and used it as a theatrical playhouse until July 7, 1976 when it was completely destroyed by a fire. SHRI #00093⁵⁵, SHRI #00096

- **Jensen House (1872)** Built by brothers E.R. and J.C. Jensen on land purchased from Atherton in 1867 in a "salt box" design, the only major alterations were dormer window in 1882 and extra bed and bathrooms in 1939. It is probably one of the oldest homes in Alameda County continually lived in by descendants of the original family.
- **Castro Valley Exchange Site (1881)** I.W. Thomford operated what was probably Castro Valley's first business on the site at the intersection of Redwood Road and Grove Way now occupied by Trader Joe's. The exchange included a storefront that served as a saloon, a barn, and a fenced area used as a stockyard. SHRI #00083
- **Alcorn Chicken Ranch (1905)** 4605 Malabar Avenue. The site has been determined ineligible for listing on the National Register but due to its association with the chicken ranching history of Castro Valley, may be eligible for the California Register based on its local historic significance. The ranch was owned and operated by George Alcorn who also served as the Director of the Agricultural Extension at the University of California-Berkeley. The remaining ranch buildings have been proposed for demolition as part of a proposed 16-unit residential subdivision on the site.
- **Auguste Borloz (McDoulette) Farm, 5238 Proctor Road.** This site on Proctor Road has been proposed for residential development and is undergoing environmental review. The site appears eligible for the California Register under Criterion 1, at the local level, as a complete and relatively early example of a chicken farm in Castro Valley.
- **Adobe Art Center (1938), 20395 San Miguel.** Built by the Works Project Administration, the adobe structure was originally used as headquarters for the Castro Valley Elementary School District.
- **Castro Village Center (1949)** Developed by R.T. Nahas, the Center was one of the first shopping centers in Alameda County.
- **Feed Store Building, 2544 Castro Valley Boulevard.** Orin Crowe's Feed Store Building (with barn to the rear) is now occupied by B. A. Morrison Heating and Air.
- **Valley Cathedral at the Crossroads (1969), 20600 John Drive.** Now known as the Neighborhood Church, this is one of the few East Bay buildings by architect Welton Beckett. He is best-known for Los Angeles area icons, including the cylindrical Hollywood Capitol Records building, the Los Angeles International Airport (with Pereira, Luckman and Paul R. Williams), and the Los Angeles Music Center. Beckett and Associates were also architects for the Kaiser Center in Oakland (1959), many San Francisco office buildings, and the Serramonte, Hillsdale, and Stanford Shopping Centers.⁵⁶

⁵⁵ <http://www.palomares.cv.k12.ca.us/history/index.html>

⁵⁶ David Gebhard, et. al., *A Guide to Architecture in San Francisco & Northern California*, p. 311.

In addition to specific properties, Castro Valley's character is described by a variety of architectural styles and development patterns that typify different parts of the community. One of the most prevalent older building types is the California or Craftsman bungalow, which is typically a one-story structure with a low-pitched roof and front porch. Another common style in neighborhoods dating from the 1920s to 1940s is called Period Revival architecture. These buildings include homes with features associated with California's Spanish and Mexican periods, such as stucco walls and tile roofs.

Castro Valley also boasts a number of well-preserved Eichler homes in the Greenridge development. Eichlers are architect-designed mid-century modern homes built by merchant builder Joseph Eichler between 1949 and 1974. Eichler was a prominent developer who built more than 11,000 single-family homes throughout California. Eichler's approach emphasized building affordable homes that were characterized by bold, modernist designs. Opposed to racial discrimination, Eichler was one of the first large tract builders to sell to non-white homebuyers. (Eichler Network, 1996-2006).

REGULATORY SETTING

Federal

The 1966 National Historic Preservation Act (NHPA) established the National Register of Historic Places, authorized funding for state programs with participation by local governments, created the Advisory Council on Historic Preservation, and established a review process for protecting cultural resources. The NHPA provides the legal framework for most state and local preservation laws. The National Register of Historic Places is the nation's official list of cultural resources worthy of preservation. Section 106 of NHPA requires federal agencies to consider the effects of their actions on historic properties in as provided for in the Advisory Council's regulations. The regulations apply to state and local activities that are funded by or require approval from federal agencies as well as projects and programs that are undertaken directly by federal agencies.

The Native American Graves Protection and Repatriation Act (NAGPRA) requires that Native American cultural items be returned to their respective peoples if and when they have been excavated, and allows archeological teams a short time for analysis before the remains must be returned. "Cultural items" include human remains, funerary objects, sacred objects, and objects of cultural patrimony. This legislation also applies to many Native American artifacts, especially burial items and religious artifacts.

State

The California Register of Historical Resources was established in 1992 by amendments to the Public Resources Code. The Register includes resources that are formally determined eligible for, or listed in, the National Register, State Historical Landmarks numbered 770 or higher; Points of Historical Interest recommended for listing by the State Historical Resources Commission (SHRC); resources nominated for listing and determined eligible in accordance with criteria and procedures adopted by the SHRC, and resources and districts designated as city or county landmarks when the designation criteria are consistent with California Register criteria.

California Historical Landmarks (CHLs) are buildings, structures, sites, or places that have been determined to have statewide historical significance by meeting at least one of the criteria in the State law. The County Board of Supervisors or the City/Town Council in whose jurisdiction the resource is located and the State Historical Resources Commission must also approve the designation. California Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value.

The California Environmental Quality Act (CEQA) defines historical resources as those listed in (or determined eligible for listing in) the California Register; included in a local register of historical resources or identified as significant in a historical resource survey that meets certain requirements; and any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be significant. Generally, a resource is considered to be historically significant if it meets the criteria for listing in the California Register. However, a lead agency under CEQA is not precluded from determining a resource is significant that is not listed in (or determined eligible for listing in) the California Register, not included in a local register, or identified in a historical resources survey as a historical resource, as defined in the Public Resources Code.

Under CEQA, any project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. Projects that may affect archaeological sites are also subject to review under CEQA even if the site does not meet the law's criteria for defining historic resources but is a "unique archaeological resource" as defined by the law.

The California Historical Resources Information System (CHRIS) is a statewide system for managing information on the full range of historical resources identified in California. CHRIS is a cooperative partnership between the citizens of California, historic preservation professionals, twelve Information Centers, and various agencies. The purpose of the system is to:

- Integrate newly recorded sites and information on known resources into the California Historical Resources Inventory;
- Furnish information on known resources and surveys to governments, institutions, and individuals who have a justifiable need to know; and
- Supply a list of consultants who are qualified to do work within their area.

Typically, the initial step in addressing cultural resources in the project review process involves contacting the appropriate Information Center to conduct a record search. A record search should identify any previously recorded historical resources and archaeological studies within the project area, as well as provide recommendations for additional work that may be warranted. Depending on the nature and location of the project, the project proponent or lead agency may also want to contact appropriate Native American representatives to aid in the identification of traditional cultural properties.

If known cultural resources are present within the proposed project area or if the area has not been previously investigated for the presence of such resources, the Information Center may recommend a survey for historical, archaeological and paleontological sites. Cultural resources that may be adversely affected by an undertaking should be evaluated for significance. For archaeological sites, a significance evaluation typically involves conducting test excavations. For historical sites or structures, historical research should be conducted and an architectural evaluation may be warranted. If significant, the resource should be protected from adverse impacts. Data recovery excavations may be warranted in the case of unavoidable damage to archaeological sites. If human burials are present, the appropriate Coroner's office must be contacted. A professional archaeologist and appropriate Native American representatives should also be consulted.

Several state laws address the importance of Native American involvement in the development review process and provide requirements for the treatment of human remains and grave goods and protection of cultural places. Among these is the California Native American Graves Protection and Repatriation Act of 2001. This Act was adopted to conform to the federal Native American Graves Protection and Repatriation Act, and is intended to ensure that all California Indian human remains and cultural items are treated with dignity and respect. In addition, sections of the California Health and Safety Code address the discovery of human remains outside a dedicated cemetery and provide requirements for consultation with appropriate Native American individuals for disposition of the remains.

When an initial study identifies the existence, or the probable likelihood, of Native American human remains within the project area, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code §5097.98. The applicant may develop an agreement for treating or disposing, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans. Government Code Sections 65352.3, 65352.4, 65562.5 also require local agencies to consult with identified California Native American Tribes, as part of the general plan adoption or amendment process and prior to the dedication of open space. To comply with these requirements, the County contacted representatives of the Ohlone, Costanoan, Miwok, and Patwin tribes and provided copies of draft policies and other materials but did not receive any response.

Local

Alameda County has a 15-member Parks, Recreation, and Historical Commission that advises the Planning Commission and the Board of Supervisors on matters related to historic resources. The duties and powers of the committee include: promoting preservation of historic resources associated with the unincorporated areas of Alameda County; recommending that certain sites be designated as historic resources; advising on the administration of historic sites and landmarks; and advising on all matters relating to the historic and cultural preservation of the unincorporated areas of the County, in particular State and federal designations and registration of historical landmarks.

The County has not adopted an ordinance that provides for the designation of landmarks or regulation of projects that propose demolition or alteration of historic or potentially historic structures. As a result, the County uses the environmental review process to evaluate and

mitigate impacts on potentially historic and cultural resources on a case-by-case basis. The County has contracted with consultants to survey historic resources in Castro Valley and other unincorporated areas in the western part of the County and draft an historic preservation ordinance. Once adopted, an ordinance would provide a legal basis for designating sites and structures that should be protected because they contribute to Castro Valley's special character and identity and regulating their alterations. The County has no zoning standards or design guidelines that the Planning Commission, Municipal Advisory Council, or Staff can use to promote design that maintains the historical character of older neighborhoods or older structures that are good examples of the community's historical architectural styles.

IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

Impacts of buildout of the proposed General Plan would be significant if they:

- Change the significance of a historical resource through physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historic resource would be materially impaired (Guidelines Section 15064.5);
- Disrupt or adversely affect a "unique" archaeological resource (Public Resources Code Section 21083.2 (g) by materially impairing its significance;
- Result, either direct or indirectly, in the destruction of a unique paleontological resource; or
- Disrupt or adversely affect any site of historic or cultural significance to a community or ethnic or social group including disturbing any human remains interred within or outside of formal cemeteries.

METHODOLOGY & ASSUMPTIONS

A complete records search was conducted by the Northwest Information Center at Sonoma State University, which reviewed the State of California Office of Historic Preservation records, base maps, historic maps, and literature for Sonoma County on file. This information included a complete list of known prehistoric and historic archaeological sites as well as information on historic architectural resources that have been listed on the local, state, or national registers.

Because this EIR is a Program EIR on a general plan, site-specific analysis of potential impacts on cultural and historical resources is not appropriate. Instead, this analysis identifies the type and magnitude of impacts that may result from the proposed General Plan as a whole.

SUMMARY OF IMPACTS

The primary impact that could occur would be disturbance of cultural resources as a result of new construction or alteration of existing structures that occurs under the proposed Plan. Implementation of the proposed Plan will result in development of vacant sites and redevelopment of currently developed parcels, primarily on infill sites within existing built-up areas. Specific projects implied through General Plan policy will require supplemental environmental analysis prior to implementation, in compliance with CEQA requirements.

According to the Northwest Information Center at Sonoma State University, there is a high possibility of uncovering and identifying additional archaeological deposits in the Castro Valley Planning Area. Existing national, state, and local laws as well as policies in the proposed General Plan would reduce these potential impacts on historic and archaeological resources to less than significant levels. The Planning Area also includes sites and structures associated with Castro Valley's cultural history and development, some of which may meet the criteria for inclusion in the California Register of Historic Places. No known significant paleontological resources exist in the study area.

IMPACTS AND MITIGATION MEASURES

Impact

3.12-1 New development under the proposed General Plan has the potential to adversely affect historic resources that appear on State historical or archaeological inventories or may be eligible for inclusion on such lists. (*Less than Significant*)

Even though Castro Valley is essentially built out, development or redevelopment under the proposed plan may adversely affect historic resources primarily during the construction phase. In addition to affecting known resources, the high probability of identifying additional Native American and historical archaeological resources in the Planning Area warrants the need for further archival and field study by an archaeologist on a project-specific basis. Archaeological surveys may also be appropriate as part of large project development activities. State and county law would protect any newly identified resources.

If evidence of prehistoric or historic artifacts or remains is known to exist, the County requires that the developer contact a qualified archaeologist so that a mitigation program can be defined before development may occur. If evidence is uncovered during the course of excavation for a development project, grading shall cease until a qualified archaeologist develops a mitigation program.

Proposed General Plan Policies that Reduce the Impact

Policy 5.4-1 Protect and preserve Federal and State-designated historic sites and structures and properties that are deemed eligible for designation to the maximum extent feasible. Enhance the maintenance of key historic structures such as the Stanton House, Strobridge House, and the Adobe Art Center, and ensure that they remain or are relocated to attractive and prominent settings consistent with their character and history.

Policy 5.4-3 Integrate consideration of historical and cultural resources into the development review process to promote early resolution of conflicts between cultural resources preservation and other community goals and objectives.

Policy 5.4-5 Promote the maintenance, restoration, and rehabilitation of historic and cultural resources through a variety of financial and regulatory incentives.

Action 5.4-1 Complete the Historical Resources Survey of the Castro Valley Planning Area, an inventory of historic and local cultural resources.

Prior identification and evaluation of historic resources will facilitate the development of appropriate strategies for their preservation and protection in advance of the development review process.

Action 5.4-2 Adopt regulations to protect and preserve historic and local cultural resources in the Castro Valley Planning Area based on the results of the Historical Resources Survey of the Castro Valley Planning Area. Establish the following three different categories of historic and local cultural resources, and regulations for alterations, additions, and demolition commensurate with the value of the resources:

- Historic that qualify for federal or state designation;
- Local Historic Resources that may not qualify for federal or state designation but are of local interest and are worthy of preservation; and
- Local cultural resources that are not historic resources as defined by CEQA but enhance the character of the community through their architectural character or their connection to local history.
- Because the County has not had a preservation ordinance or other regulations or guidelines to protect historic and cultural resources, Staff and decision-makers have used the environmental review process to identify and evaluate potentially significant resources on a project-by-project basis. The adoption of a preservation ordinance and formulation of other preservation tools, such as design standards and guidelines, will allow a more proactive approach to resource protection.

Action 5.4-3 Adopt regulations for the protection of historic and local cultural resources that provide clear guidance and criteria to determine when demolition of a historic or local cultural resource is permitted. Specify appropriate mitigations in cases where demolition is permitted, consistent with the CEQA and commensurate with the size and scale of the project and the value of the resource. Such mitigations may, for example, include donations to programs that restore historic or cultural resources.

Action 5.4-4 Revise the project review process to ensure that regulations and policies related to preservation of historic and local cultural resources are enforced.

- Establish or designate the review process through which additions, alterations, and demolition of historic or local cultural resources will be reviewed, for example through design review, site plan review, etc.
- Refer all projects subject to environmental review, and all projects on creekside properties (as defined in [General Plan] Chapter 7) that involve more than one new residential unit or more than 10,000 square feet, to the Northwest Information Center to conduct project review to determine whether known historic or archaeological resources

are present and whether a study has been conducted on all or a portion of the project site.

- Require a staff evaluation of structures more than 50 years old proposed for demolition to determine if a structure is a historic or local cultural resource.

Action 5.4-6 Work with County departments, the Alameda County Parks, Recreation and Historical Commission; the East Bay Regional Parks District; the Hayward Area Historical Society; other public agencies; businesses; and nonprofit organizations to establish programs for preservation of historic and local cultural resources. Consider establishing the following types of programs:

- A historic preservation fund that provides a monetary source for local preservation incentives such as an architectural assistance program and archaeological site protection plan. The fund may be supported through grants, private or public donations, or other sources.
- Permanent displays for the new Castro Valley Library describing the culture of Native American communities who lived in the area and the history and development of the community since European settlement in the 19th century.
- A “receiver site” program that provides relocation sites for historical resources (buildings, structures or objects) that cannot be preserved onsite. Receiver sites should be located within the community in which the resource was originally located and should maintain a context and setting comparable to the original location.
- An “adopt a resource” program. These programs encourage and assist the public and local businesses to become involved in the protection and preservation of historical and cultural resources, sponsor preservation of individual properties, and conduct the necessary fund-raising.

Mitigation Measures

No additional mitigation measures are required.

Impact

3.12-2 New development has the potential to disturb known or previously unidentified cultural resources that are not eligible for a federal or State listing but may have historic or cultural significance to the community or an ethnic or social group. (*Less than Significant*)

Proposed General Plan Policies that Reduce the Impact

In addition to the proposed policies and actions listed above, the draft Plan includes policies and actions would ensure protection of sites and structures with local historical and cultural importance. As discussed in Section 3.13: Visual Quality, these features are important because they contribute to the overall character of the community. In addition to the proposed policies and actions to protect listed or eligible resources and in Section 3.13 to protect features that

contribute to the Castro Valley's visual character, the following provisions would help to avoid potentially significant adverse impacts to structures and sites that are cultural resources:

Policy 5.4-2 Establish appropriate strategies to protect local cultural resources that do not qualify for designation as historic resources but still reflect Castro Valley's history and traditions. Possible strategies include:

- Conservation districts for older neighborhoods with a unified distinctive character such as the neighborhood of Eichler homes;
- Lower densities or conservation easements in environmentally sensitive areas that reflect Castro Valley's agricultural history such as: Palomares Canyon, and properties with barns and stables located along creek beds and Crow and Cull Canyon roads.

Action 5.4-5 Consider adopting design review districts, specific plans, or other similar mechanisms to preserve the character of neighborhoods that have a unique design character. These may be considered for designation as historic districts, or may be designated as local cultural or design districts if they do not qualify for designation as a historic district.

Design review criteria, standards, and guidelines can be established through an overlay district in the Zoning Ordinance or through a specific plan. Modified setback, height, and other standards can be prescribed to ensure the consistency of new buildings and additions with the existing neighborhood development patterns. Design guidelines can be written and illustrated in order to preserve the design character of neighborhoods.

Mitigation Measures

No additional mitigation measures are required.

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3.13 Visual Quality

This section presents information about the visual and aesthetic resources in the Castro Valley Planning Area including scenic views of the Diablo Range and the San Leandro and Palomares hills and evaluates the effects of implementing the proposed General Plan on these features.

ENVIRONMENTAL SETTING

PHYSICAL SETTING

Castro Valley's visual character is defined by its natural setting as well as by the style and pattern of the built environment including buildings, streets, trees, and other landscaping.

The 38-square mile Planning Area is a flat to gently sloping valley bowl surrounded by steep hills and canyons. The hills above Castro Valley are visible from its Central Business District and the BART station. In addition to its hills, Castro Valley is traversed by several creeks which make their way from the hills to San Lorenzo Creek south of the community. Crow Creek and Cull Creek pass through east Castro Valley while Castro Valley Creek runs through the northeast and central neighborhoods of the community.

The segment of I-580 that passes through Castro Valley is eligible to be a California Scenic Highway, although it has not been officially designated as such. The County General Plan's Scenic Highways Element designates Crow Canyon, Cull Canyon, and Lake Chabot roads as scenic routes. In addition, many residential streets in Castro Valley are lined with mature trees. Many residential areas of the community are located on rolling, thickly vegetated hills and canyons. The lack of curbs and gutters on the streets gives some neighborhoods a semi-rural character.

Most of Castro Valley's 19th century structures and some of those built in the first half of the 20th century were demolished during the building boom following World War II and continuing through the 1970's, but a few of the community's older structures remain. Some have been officially recognized as historic sites. In addition to specific properties, Castro Valley's character is described by the variety of architectural styles and development patterns that typify different parts of the community. One of the most prevalent older building types is the California or Craftsman bungalow, which is typically a one-story structure with a low-pitched roof and front porch. Another common style in neighborhoods dating from the 1920's to 1940's is what is called Period Revival architecture. These buildings include homes with features associated with California's Spanish and Mexican periods, such as stucco walls and tile roofs. Castro Valley also boasts a number of well-preserved Eichler homes in the Greenridge development. The Eden Medical Center Hospital Building is another distinguishing building in the Planning Area, due to its visibility from many parts of the community.

The Planning Area's visual character is also defined by negative features such as transmission towers, an absence of sidewalks in residential areas, unlandscaped or poorly landscaped medians in arterials including Redwood Road and Castro Valley Boulevard, overly-broad arterials with little or no landscaping (e.g. Castro Valley Blvd, Redwood Road, and Center Street), and commercial areas dominated by parking lots, billboards and unattractive signage.

Castro Valley Boulevard, formerly a State highway, retains much of its highway-oriented visual quality, with an automobile-oriented street design; an absence of pedestrian amenities such as street trees, plazas, and pedestrian-scale lighting; an inconsistent and incompatible mix of land uses; and commercial signs that create visual clutter.

REGULATORY SETTING

Inside the Castro Valley Planning Area, public parks preserve the forested hillsides to the west of Cull Canyon (Deerview Park), to the east of Crow Canyon (Palomares Hills Park), and above the Five Canyons neighborhood (Five Canyons Park). Visual resources outside the Planning Area are preserved by the East Bay Regional Park District: the hills to the north of the Castro Valley Planning Area and west of Redwood Drive are protected by Anthony Chabot Regional Park; Cull Canyon and its lagoon are preserved by a separate regional park; and Don Castro Regional Park contains a fishing lake and swimming lagoon visible south of I-580.

All of the land to the north and east of Castro Valley, up to Redwood Drive, is protected from urban or suburban development by an urban growth boundary established by County voters with the approval of Measure D in 2000.

The Scenic Route Element of the County General Plan establishes policies to preserve and enhance scenic qualities and natural scenic areas adjacent to and visible from scenic routes. The County also adopted a Specific Plan for Areas of Environmental Significance, which creates a Site Development Review process for designated areas of environmental significance, which are riparian areas and along scenic route corridors. The County's upcoming new Resource Conservation, Open Space, and Agriculture (ROSA) elements will replace this plan.

As State and regional agencies, Caltrans and BART are not subject to local regulation, but their actions and policies have a significant effect on visual character.

IMPACT ANALYSIS

SIGNIFICANCE CRITERIA

Impacts of buildout of the proposed General Plan would be significant if they:

- Have a substantial adverse effect on views of the hills surrounding Castro Valley, or any scenic routes identified under the California Scenic Highway Program, which could be caused by blocking panoramic views or views of significant landscape features or landforms as seen from public viewing areas;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway corridor;
- Substantially degrade the existing visual character or quality of the study area and its surroundings; or
- Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

Generally, the greater the change from existing conditions, the more substantial the impact. For example, the construction of a new development on open rural land usually has a greater visual impact than redevelopment on infill land. Likewise, the construction of a new roadway generally has a greater visual impact than the widening of an existing one. New development and redevelopment can have significant local impacts where they would require the removal of trees and other important landscape buffers or other contrasting visual elements.

METHODOLOGY & ASSUMPTIONS

To evaluate potential impacts on Castro Valley's visual resources, the Plan was examined to determine if it would:

- increase building heights and/or bulk that would block views from public viewpoints, such as parks, community centers, and streets;
- change land uses in a way that would impact scenic vistas;
- expand roadways in scenic areas;
- permit the loss of historic resources;
- allow new development inconsistent with the visual character of neighborhoods that are seen as a source of positive community identity; or
- promote a significant nighttime light source or large amounts of glass that would generate daytime glare.

SUMMARY OF IMPACTS

The proposed Plan would change permitted land uses and increase the residential density allowed at certain locations. This could result in infill development or redevelopment that block views of the hills surrounding Castro Valley due to its height and bulk. However, no roadway expansions are planned and none of the proposed Plan policies would alter the views along scenic routes or result in the redevelopment of historic resources.

Overall, new development resulting from the proposed Plan will not have a significant effect on the visual character of Castro Valley because new development is likely to be similar in scale and character to existing development. Infill development is not expected to have a substantial adverse impact on panoramic views or create incongruous visual elements because the height and massing of new development will be similar to existing developments. Proposed General Plan Policies and site planning criteria will reduce any potentially significant impacts to levels that are not significant.

IMPACTS AND MITIGATION MEASURES

Impact

3.13-1 Changes to land use and residential density could affect scenic vistas and visual character along scenic routes and from public viewpoints. (*Less than Significant*)

The following land use changes are proposed in the proposed General Plan:

- A segment of Crow Canyon Road is proposed for re-designation from agricultural to rural residential single-family use.
- The west side of the intersection of Lake Chabot and Seven Hills roads is proposed for a change in land use designation from Planned Development to Neighborhood Commercial Mixed Use.
- A Neighborhood Commercial Mixed Use designation is proposed around the intersections of Lake Chabot and Seven Hills roads; and Wilson Avenue, James Avenue, and Redwood Drive. Tall or bulky development on these sites could obscure the view of hills above Castro Valley from the Castro Valley Park/Community Center and Castro Valley High School, respectively.
- A Residential Mixed Density area proposed to the north of Adobe Art Center could permit taller development that blocks views from that public viewpoint.
- Proposals for transit-oriented development on the BART parking lot and high density residential mixed use at the eastern end of Castro Valley Boulevard could create tall and bulky structures that prevent views to the hills from Castro Valley's downtown.

Proposed General Plan Policies that Reduce the Impact:

Policy 4.4-1 Require new development to comply with zoning standards and be compatible with the scale and character of surrounding development.

Policy 4.5-5 Development in neighborhood commercial areas shall be designed to be compatible with the surrounding residential area and minimize impacts on adjoining residential properties, with respect to height, bulk, building massing, architectural design, building orientation, parking location, signage and other features.

Action 4.5-4 Prepare Design Standards and Guidelines for mixed use development on neighborhood commercial sites. Include provisions to address the following issues:

- Height should generally be no more than three stories.
- Require some variety in building massing such as two-story elements, dormers, or bay windows. Allow some taller elements as focal points for a small percentage of the building footprint.
- Require height and step-back transitions from neighborhood commercial to adjoining residential properties.
- Provide adequate short-term parking on the site or on the street for customers.
- Provide safe bicycle and pedestrian access and secure bicycle parking.
- Strongly encourage or require shared driveways and joint access easements on parking lots on adjoining properties to reduce circulation conflicts and improve safety.

Action 4.6-7 Amend the zoning code and establish design standards and/or guidelines to ensure high quality design in new development. Establish standards for uses that may have potential negative impacts such as auto repair or check-cashing.

Establish criteria in the zoning ordinance for site plan and design review. review and establish design standards and guidelines to address the following issues:

- Building relationship to the Street
- Building to Public Spaces
- Quality of Building Materials and Design Features
- Ground Floor Design (Transparency, of Materials, and articulation)
- Building Bulk and articulation

Action 4.9-5 Develop design review standards and guidelines for general commercial, community commercial, and community services and offices districts, including ministerial check list design review for smaller projects and discretionary review for larger projects and development at identified catalyst sites. Standards and/or guidelines must address the following issues:

- Parking lot landscaping
- Pedestrian access from Sidewalks and Parking areas to Store entrances
- Location of Surface Parking
- Building Design - articulation, architectural interest, quality of materials
- Location of Entrances
- Streetscape Improvements including street trees

Action 5.1-1 During the review of public and private development projects, require visual impact analysis to ensure protection of views to natural areas from public streets, parks, trails, and community facilities.

Action 5.4-2 Establish appropriate strategies to protect local cultural resources that do not qualify for designation as historic resources but still reflect Castro Valley's history and traditions. Possible strategies include:

- Conservation districts for older neighborhoods with a unified, distinctive character such as the neighborhood of Eichler homes.

Mitigation Measures

No additional mitigation measures are required.

Impact

3.13-2 Taller infill development may use glass or other reflective materials that would generate substantial glare and obscure visual resources. (*Less than Significant*)

An increase in the permitted intensities of retail and office uses in the Central Business District may result in multi-story glass structures that reflect the sun strongly and make viewing the surrounding hillsides difficult.

Proposed General Plan Policies that Reduce the Impact:

In addition to Policy 4.4-1 and Actions 4.6-7, 4.9-5 and 5.1-1 listed above,

Action 4.7-11 Update the standards and guidelines in the CBD Specific Plan to provide additional guidance regarding building design. Require discretionary design review, and enforce existing standards and guidelines during project review.

Action 4.7-12 Amend the [CBD] Specific Plan as necessary to include design standards and regulations to protect and enhance the appearance of early to mid-20th century commercial buildings that enhance the historic and small town character of the Central Business District. The zoning ordinance should include provisions that would encourage adaptive reuse of such structures such as reduced parking requirements.

Mitigation Measures

No additional mitigation measures are required.

Impact

Encouragement of school recreation fields and public parks for dual use may result in nighttime activities that require strong lights, which may create a visual annoyance. Residential development in formerly agricultural parcels along Crow Canyon Road may also result in nighttime lighting that would disrupt the visual character of that scenic route. (*Less than Significant*)

Proposed General Plan Policies that Reduce the Impact:

Policy 4.2-7 Establish a comprehensive design review process that creates an appropriate level of review for each type of project. Balance the goals for better project design with the impacts in terms of review time and cost for property owners. Consider staff resources.

Establish development standards and guidelines specific to each zoning district and/or building type. Develop a checklist of standards that can be applied to all development applications. Use the new standards as the basis for review of development applications. Establish different levels of review based on the number of units, number of new lots, and/or acreage of the project.

Policy 4.4-1 Require new development to comply with zoning standards and be compatible with the scale and character of surrounding development.

Mitigation Measures

No additional mitigation measures are required.

Impact

The reconstruction of Eden Medical Center to meet State seismic standards, which is accommodated by the proposed Plan, may result in building heights and siting that could have a significant impact on visual character. (*Less than Significant*)

Proposed General Plan Policies that Reduce the Impact

Reconstruction work on the Eden Medical Center will require visual simulations, community participation in design review, and County review of plans to ensure that new buildings do not loom over surrounding residential neighborhood and that the site is attractively landscaped.

Policy 4.8-2 Create a high-quality image on the Eden Medical Center site and on surrounding properties in the district through design, landscaping, and maintenance.

Policy 4.8-4 Plan new development to minimize adverse effects on surrounding residential areas.

Action 4.8-1 Amend specific plan standards and guidelines and establish design review procedures to ensure that development in the district, including Eden Medical Center, achieves a high quality of building design and site planning, and includes ample landscaping. Standards and guidelines must address the following issues:

- New buildings at Eden Medical Center to be located and designed so they do not loom over adjacent small scale residential.
- Access points for emergency vehicles to minimize impacts on surrounding residential.
- Entrance and exit points into parking to minimize impacts on surrounding residential.
- Minimum setbacks from residential properties
- Quality of building design – materials, articulation, architectural interest, design integrity
- Relationship of buildings to surrounding streets
- Street trees and street improvements to make units facing the street more livable

Mitigation Measures

No additional mitigation measures are required.

REFERENCES

Alameda County General Plan, Scenic Routes Element, 1966.

Alameda County, Specific Plan for Areas of Environmental Significance, 1977.

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