

## 3.2 CEQA Required Conclusions

This chapter summarizes the impacts of the proposed Plan in several subject areas specifically required by CEQA, including significant irreversible changes, significant unavoidable impacts, growth inducing impacts, cumulative impacts, and impacts found to be not significant. These subject areas are evaluated based on the analysis in *Part Two: Settings, Impacts, and Mitigation Measures*, of this EIR.

### **SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES**

Significant irreversible environmental changes are those irretrievable commitments that consign non-renewable resources to uses that future generations will probably be unable to reverse. Irretrievable commitments of non-renewable resources associated with the land development pattern and transportation improvements in the proposed Plan would include:

- Consumption of significant amounts of nonrenewable energy for construction, maintenance, and operation of new development or transportation improvements, even if energy use rates do not exceed existing use rates;
- Use of building materials, fossil fuels, and other resources for construction, maintenance, and operation of new development or transportation improvements;
- Conversion of some resource lands, such as agricultural land, habitat areas, and other undeveloped lands into urbanized land or transportation uses.
- Degradation of ambient air quality through the increase of harmful particulate matter caused by a cumulative increase in vehicle exhaust; and
- Emission of greenhouse gases that will contribute to global climate change.

### **SIGNIFICANT UNAVOIDABLE IMPACTS**

Significant unavoidable impacts are those that cannot be mitigated to a level that is less than significant. Part Two of this EIR identifies the following significant unavoidable impacts when comparing the proposed Plan to existing conditions:

- Increase in per capita vehicle miles traveled at Level of Service F at AM peak hours, at PM peak hours, and for the day as a whole when compared to existing conditions.
- Substantial net increase in construction-related emissions.
- Increased emissions of PM<sub>10</sub> over existing conditions.

- Net increase in sensitive receptors located in Transit Priority Project (TPP) corridors where TACs or fine particulate matter (PM<sub>2.5</sub>) concentrations result in a cancer risk greater than 100/million or a concentration of PM<sub>2.5</sub> greater than 0.8 ug/m<sup>3</sup>.
- Localized net increase in sensitive receptors located in Transit Priority Project (TPP) corridors within set distances (Table 2.2-10) to mobile or stationary sources of TAC or PM<sub>2.5</sub> emissions.
- Localized larger increase or smaller decrease of TACs and or PM<sub>2.5</sub> emissions in disproportionately impacted communities compared to the remainder of the Bay Area communities.
- Residential or business disruption or displacement of substantial numbers of existing population and housing.
- Permanent alterations to an existing neighborhood or community by separating residences from community facilities and services, restricting access to commercial or residential areas, or eliminating community amenities.
- Convert substantial amounts of important agricultural lands and open space or lands under Williamson Act contract to non-agricultural use.
- Loss of forest land, conversion of forest land to non-forest use, or conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.
- Net increase in transportation investments within areas regularly inundated by sea level rise by midcentury.
- Net increase in the number of people residing within areas regularly inundated by sea level rise by midcentury.
- Increase in land use development within areas regularly inundated by sea level rise by midcentury.
- Exposure of persons to or generation of temporary construction noise levels and/or groundborne vibration levels in excess of standards established by local jurisdictions or transportation agencies.
- Increased traffic volumes that could result in roadside noise levels that approach or exceed the FHWA Noise Abatement Criteria.
- Increased noise exposure from transit sources that exceed FTA exposure thresholds.
- Increased vibration exposure from transit sources that exceed FTA exposure thresholds.
- Substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
- Substantial adverse impacts on designated critical habitat for federally listed plant and wildlife species.
- Adversely affect non-listed nesting raptor species considered special-status by CDFW under CDFW Code 3503.5 and non-listed nesting bird species considered special-status by the USFWS under the federal Migratory Bird Treaty Act, and by CDFW under CDFW Code 3503 and 3513.

- Substantial adverse effect on riparian habitat, federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.), or other sensitive natural communities identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service, 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 corridor, or impede the use of native wildlife nursery sites.
- Affect visual resources by blocking panoramic views or views of significant landscape features or landforms (mountains, oceans, rivers, or significant man-made structures) as seen from a transportation facility or from public viewing areas.
- Affect visual resources by substantially damaging scenic resources (such as trees, rock outcroppings, and historic buildings) that would alter the appearance of or from state- or county-designated or eligible scenic highways.
- Affect visual resources by creating significant contrasts with the scale, form, line, color, and/or overall visual character of the existing community.
- Affect visual resources by adding a visual element of urban character to an existing rural or open space area or adding a modern element to a historic area.
- Adversely affect visual resources by creating new substantial sources of light and glare.
- Cast a substantial shadow in such a way as to cause a public hazard or substantially degrade the existing visual/aesthetic character or quality of a public place for a sustained period of time.
- Cause a substantial adverse change in the significance of a historic resource such that the significance of the resource would be materially impaired.
- Cause a substantial adverse change in the significance of a unique archaeological resource.
- Destroy, directly or indirectly, a unique paleontological resource or site or unique geologic feature.
- Result in insufficient water supplies from existing entitlements and resources to serve expected development.
- Result in inadequate wastewater treatment capacity to serve new development.
- Require and result in the construction of new or expanded stormwater drainage facilities as a result of new development, which could cause significant environmental impacts.
- Require and result in the construction of new or expanded water and wastewater treatment facilities as a result of new development, which could cause significant environmental impacts.
- Result in insufficient landfill capacity to serve new development while complying with applicable regulations.
- Locate projects 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, would create a significant hazard to the public or the environment.

- Result in the need for expanded facilities, the construction of which causes significant environmental impacts, in order to maintain adequate schools, emergency services, police, fire, and park and recreation services.
- Result in increased use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

## **GROWTH-INDUCING IMPACTS**

Growth-inducing impacts are ways in which the proposed Plan may remove obstacles to growth or foster economic or population growth directly or indirectly in the surrounding environment. New housing and commercial development contribute directly to growth by providing the necessary amenities for new residents. Transportation projects provide a more indirect but important contribution by making traveling within a region and between regions easier, cheaper, and/or more attractive.

This section analyzes the proposed Plan’s potential to generate population and employment growth beyond levels currently anticipated in regional and local plans. It describes the projected population and employment growth for the Bay Area through the year 2040. It also discusses various population characteristics (e.g., age and income) and identifies trends in the balance of jobs and housing throughout the region.

The EIR must examine the potential growth-inducing impacts of the proposed Plan. More specifically, CEQA Guidelines require that the EIR “discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly” (CEQA Guidelines Section 15126.2(d)). This analysis must also consider the removal of obstacles to population growth, such as improvements in the regional transportation system. Examples of projects likely to have growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or office complexes in areas that are currently only sparsely developed or are undeveloped. Infill development may lead to additional demand for housing and jobs but is considered to result in fewer growth inducing impacts because it builds on existing infrastructure.

The CEQA Guidelines are clear that while an analysis of growth-inducing effects is required, it should not be assumed that induced growth is necessarily significant or adverse.

## **Environmental Setting**

### ***Population and Employment: Growth Trends and Projections***

The Bay Area’s population increased by 13 percent (764,000) from 1990 to 2000 and only by 5.4 percent (367,000) between 2000 and 2010, reflecting national growth and economic downturn trends. Employment increased from 1990 to 2000 by 17 percent, reflecting the dot-com boom and general economic growth, while employment decreased by 9.8 percent between 2000 and 2010 as a result of the “dot-com bust” at the beginning of the decade and the severe national economic recession that started in 2007. Looking ahead to 2040, the horizon year for the proposed Plan, ABAG projects that the Bay Area’s population will grow another 30 percent from the 2010 level (over 2.1 million more residents), and employment will increase by 33 percent (over 1.1 million additional jobs). This growth is summarized in

**Table 3.2-1.** Two major demographic changes shape these forecasts as they relate to household and job growth: the increase in the senior population and the increase in the Latino and Asian populations.<sup>1</sup>

**TABLE 3.2-1: TOTAL PROJECTED GROWTH FOR THE BAY AREA, 1990-2040**

	1990	2000	2010	2040	Projected 2010 – 2040		Annual Growth Rates		
					Growth	Change	1990- 2000	2000- 2010	2010- 2040
Population	6,020,000	6,784,000	7,151,000	9,299,000	2,148,000	30%	1.2%	0.5%	0.9%
Households	2,246,000	2,466,000	2,608,000	3,308,000	700,000	27%	0.9%	0.6%	0.8%
Housing Units	2,365,000	2,552,000	2,786,000	3,446,000	660,000	24%	0.8%	0.9%	0.7%
Jobs	3,206,000	3,753,000	3,385,000	4,505,000	1,120,000	33%	1.6%	-1.0%	1.0%

Sources: Association of Bay Area Governments, Plan Bay Area Jobs-Housing Connection Strategy, revised May 16, 2012; California Department of Finance, E-8 *Historical Population and Housing Estimates for Cities, Counties and the State, 1990-2000*, August 2007; ABAG Projections 2000 and 2009 for historic jobs estimates.

During the past 40 years, the distribution of people has become more dispersed in the Bay Area as new urban centers have formed and cities on the edge of the region have gained population. As outlined in *Chapter 2.3: Land Use*, Santa Clara, Alameda, and San Francisco counties have the highest number of jobs, and Santa Clara, Alameda, and Contra Costa counties are the most populous.

### Age

According to the U.S. Census 2010, the median age in the Bay Area counties is 44.5 in Marin, 39.9 in Sonoma, 39.7 in Napa, 39.3 in San Mateo, 38.5 in Contra Costa and San Francisco, 36.9 in Solano, 36.6 in Alameda, and 36.2 in Santa Clara.<sup>2</sup>

The population of the Bay Area is expected to increase across all age groups, but with the largest increase (137 percent) happening in the age bracket of 65 and over, and the smallest increase (1 percent) happening in the age bracket of 45 to 64 years, as shown in **Table 3.2-2**. This indicates a change in overall composition of Bay Area residents towards an aging population. Effects of the growing senior population are expected to include an increase in the amount of residential care facilities and a decline in the labor force.<sup>3</sup>

<sup>1</sup> Association of Bay Area Governments, Plan Bay Area Jobs-Housing Connection Strategy, revised May 16, 2012.

<sup>2</sup> U.S. Census, 2010.

<sup>3</sup> Association of Bay Area Governments, Plan Bay Area Jobs-Housing Connection Strategy, revised May 16, 2012.

**TABLE 3.2-2: FORECASTED GROWTH BY AGE GROUP AS A PERCENT OF THE TOTAL (2010-2040)**

<i>Age Bracket</i>	<i>Percent Growth in Population. 2010-2040</i>
0-24 years	25%
25-44 years	17%
45-64 years	1%
65 years and over	137%

Source: Association of Bay Area Governments, Plan Bay Area Jobs-Housing Connection Strategy, revised May 16, 2012; 2010 Census, California Department of Finance.

### *Income*

Median incomes in the Bay Area range from a low of \$59,055 in Sonoma County to a high of \$85,002 in Santa Clara County, as shown in **Table 3.2-3**.

**TABLE 3.2-3: 2010 MEDIAN INCOME IN THE BAY AREA BY COUNTY**

<i>County</i>	<i>Median Household Income</i>
Alameda	\$ 67,169
Contra Costa	\$ 73,721
Marin	\$ 83,967
Napa	\$ 64,401
San Francisco	\$ 71,745
San Mateo	\$ 82,748
Santa Clara	\$ 85,002
Solano	\$ 63,384
Sonoma	\$ 59,055

Source: U.S. Census, 2010.

Population growth is expected to be reflected in all income groups through 2040 with small changes in the distribution: higher shares for the very low and low-income households and lower shares for the moderate and above moderate-income households.

### *Car Ownership*

Approximately 9.6 percent of Bay Area households did not own a vehicle as of 2010, down from 10 percent in 2000. As shown in **Table 3.2-4**, average car ownership per household has increased slightly from 1.91 to 2.03 from 2000 to 2010.<sup>4</sup> Changes in car ownership in the Bay Area over time would be tied to income, with high-income households more likely to own cars, but also to transit access and proximity

<sup>4</sup> Metropolitan Transportation Commission, Vehicle Ownership Forecasts for the San Francisco Bay Area 1990 – 2030, 2005.

to work and other daily destinations.<sup>5</sup> Somewhat lower car ownership may be expected in households residing in transit-oriented developments,<sup>6</sup> although this depends greatly on the quality and density of the transit network. Overall in the Bay Area, commuting patterns remained largely consistent between 2000 and 2010, with the private automobile providing transportation for 80 percent of workers.<sup>7</sup>

**TABLE 3.2-4: AUTO OWNERSHIP PER HOUSEHOLD IN THE BAY AREA, 2000 AND 2010**

<i>County</i>	<i>2000</i>	<i>2010</i>
Alameda	1.79	1.93
Contra Costa	2.02	2.14
Marin	2.03	2.16
Napa	1.98	2.11
San Francisco	1.21	1.30
San Mateo	2.05	2.19
Santa Clara	2.17	2.26
Solano	2.07	2.20
Sonoma	2.07	2.18
<b>Bay Area</b>	<b>1.91</b>	<b>2.03</b>

Source: MTC Report, Growth in Auto Ownership by Bay Area Counties, 1930-2010, [http://www.mtc.ca.gov/maps\\_and\\_data/datamart/forecast/ao/tablea1.htm](http://www.mtc.ca.gov/maps_and_data/datamart/forecast/ao/tablea1.htm).

MTC’s 2006 report, “*Transit-Oriented Development: New Places, New Choices in the San Francisco Bay Area*,” supports the proposition that transit-oriented development can reduce the rate of car ownership. According to this report, almost 30 percent of households living within a half-mile of a rail or ferry station do not own cars. Households closer to transit also log fewer daily miles on the cars they do own (20 miles per day for households less than a half-mile from transit, versus 39 to 55 miles per day for households living more than one mile from transit). Furthermore, households close to transit report a higher share of daily work and non-work trips on foot or by bike than households farther from transit.

### **Jobs and Housing**

Over the last 10 years, the supply of affordable housing in the Bay Area has not kept pace with job growth. Thus, new workers filling jobs must either pay high prices to own or rent housing near their places of employment or move further away and face correspondingly longer commutes. **Table 3.2-5** compares the number of employed residents with the number of jobs for each county and indicates which counties are exporters of workers and which counties are importers.

<sup>5</sup> Association of Bay Area Governments, Plan Bay Area Jobs-Housing Connection Strategy, revised May 16, 2012.

<sup>6</sup> Association of Bay Area Governments, Bay Area Air Quality Management District, Bay Conservation and Development Commission, and Metropolitan Transportation Commission, *Transit-Oriented Development in the San Francisco Bay Area: New Places, New Choices*, 2006.

<sup>7</sup> U.S. Census, 2000 and 2010.

**Table 3.2-5** shows that in 2010, there were approximately 3.3 million employed residents and 3.4 million jobs in the Bay Area. Based on these numbers, there are more jobs than residents, therefore resulting in about 116,000 commuters from outside the Bay Area filling jobs within the nine-county region.

Growth-inducing potential can be affected at the local and regional level by changes in the jobs-housing balance as local communities update general plans and zoning and developers respond to perceived opportunities where there is an imbalance. A jobs-housing balance ratio compares the available housing and available jobs within a community, city or other geographically defined sub-region. Planning for a jobs-housing balance is based on the premise that the number of work trips by car, the overall number of vehicle trips, and the resultant vehicle miles traveled can be reduced when there are sufficient jobs available locally to balance the employment demands of the community.

**TABLE 3.2-5: 2010 EMPLOYMENT BY COUNTY – NET IMPORTERS/EXPORTERS OF WORKERS AND JOBS/HOUSING BALANCE**

<i>County</i>	<i>Employed Residents</i>	<i>Jobs</i>	<i>Difference (Jobs/Employed Residents)</i>	<i>Jobs/Employed Residents Ratio</i>	<i>Imports/Exports Workers</i>
Alameda	667,750	694,450	26,700	1.04	Imports
Contra Costa	442,300	344,920	-97,380	0.78	Exports
Marin	118,430	110,730	-7,700	0.93	Equal <sup>1</sup>
Napa	57,230	70,650	13,420	1.23	Imports
San Francisco	413,730	568,720	154,990	1.37	Imports
San Mateo	346,650	345,200	-1,450	1.00	Equal <sup>1</sup>
Santa Clara	822,740	926,260	103,520	1.13	Imports
Solano	174,370	132,350	-33,390	1.00	Exports
Sonoma	225,490	192,010	-33,480	0.85	Exports
<b>Region</b>	<b>3,268,700</b>	<b>3,385,290</b>	<b>116,590</b>	<b>1.04</b>	<b>Imports</b>

**Note:**

1. Defined as difference of 10,000 or less.

Source: Association of Bay Area Governments, Plan Bay Area Jobs-Housing Connection Strategy, revised May 16, 2012.

Planning for a jobs-housing balance builds on and integrates analyses of employment potential (existing and projected), housing demand (by income level and housing type), new housing production, and the relationship between employment opportunities and housing availability. Improving the jobs-housing balance so that the number of jobs is approximately the same as the number of employed residents—a ratio of 1:1—requires carefully planning for the location, intensity, and nature of jobs and housing in order to encourage a reduction in vehicle trips and miles traveled and a corresponding increase in the use of mass transit and alternative modes of transportation, such as carpools, bicycling, and walking. Market forces also play an important role in determining the size and location of growth, however, and may not always correspond with regional planning priorities and policies.

**Table 3.2-5** shows the current and projected jobs-employed residents balance by county. In theory, a 1:1 ratio would indicate balance and improved opportunities for reduced commuting distances when the types of jobs match the skills of the local residents (although commuting is not reduced where there are

mismatches between jobs and worker skills, and income and housing affordability). An imbalance, particularly where there are fewer jobs than employed residents and the ratio is less than 1.0, can result in growth inducement as local officials and developers take actions to add non-residential land uses and increase the job base. These actions, in turn, can create pressure for additional growth. Also, if there is an imbalance in jobs and housing within a particular city, other cities may seek to fill the gap, whether it be housing or jobs to meet market demand. This can result in pressure for creation of jobs or housing in distant communities, and create a demand for additional infrastructure and services growth.

## **Impact Analysis**

### ***Method of Analysis***

This analysis evaluates growth implications related to new land use patterns and new/expanded transportation systems (i.e., where demand for housing growth may increase based on increased transportation access or growth in employment), including potential impacts on areas outside the San Francisco Bay Area. UrbanSim, the regional land use forecasting model, was used to develop land use scenarios for the Bay Area that reflect policy and market forces based on historic trends, as well as the impact of transportation improvements (i.e., reduced highway congestion or increased demand for housing near a new transit station). Regional growth forecasts for the model were derived from the *Jobs-Housing Connection Strategy* completed by ABAG (available on the project website at [www.onebayarea.org](http://www.onebayarea.org)).<sup>8</sup> Based on the projected levels of household and job growth in the region, UrbanSim analyzed the impact of specific policy inputs, such as zoning, fees, incentives, and growth boundaries, on the regional development pattern. Analysis was conducted using an economic framework, meaning that the economic feasibility of residential and commercial development was evaluated in order to allocate housing based on market demands and trends. This data ranged from housing choice preferences (single-family versus multi-family) to job classifications' geographical distributions (concentrated versus distributed). In order to appropriately consider the symbiotic relationship of transportation and land use, Travel Model One and UrbanSim were unified in an integrated model framework. This allowed for analysis of how transportation projects affect the surrounding land use pattern, as well as how changes to household and employment locations affect transportation demand. More on the modeling process can be found in *Chapter 2.1: Land Use*.

This analysis therefore does not assess the total projected growth assumption, but evaluates the locational differences in growth that could occur as a result of the implementation of the proposed Plan. In particular, the analysis considers the impacts (regional and inter-regional) of the balance of jobs and employed residents, the amount of forecasted urbanized land in the Bay Area, and the role of transportation investments in influencing development over time. In general, growth impacts of the proposed Plan are compared to existing conditions as of 2010; however, where appropriate, comparison is made to the No Project alternative in order to analyze growth inducing impacts assuming no new plan is adopted.

### ***Growth-inducing Effects of Plan Bay Area***

Over the next 30 years, with or without Plan Bay Area, the Bay Area population is anticipated to continue to grow, increasing by 30 percent. The proposed Plan is intended to help shape and accommodate this

---

<sup>8</sup> Association of Bay Area Governments, Plan Bay Area Jobs-Housing Connection Strategy, revised May 16, 2012.

growth in a manner that is more efficient, sustainable, and compact. The goal is to encourage land use patterns that provide a more diverse mix of uses and a diverse range of transportation options to residents. It would be inaccurate to describe the Plan as growth-inducing as it was designed to accommodate, rather than to encourage, projected regional growth in a sustainable manner consistent with the goals of SB 375. The proposed Plan includes a compact land use development strategy, departing from the business-as-usual development pattern through:

- Defining a land use strategy designed to balance the location of new development regionally, direct jobs toward population (and vice versa), and locate new development within the existing urbanized areas; and
- Linking transportation projects with land development goals, targeting the type and location of transportation investments to more efficiently make use of existing infrastructure, serve the regional population, and promote balanced, compact growth.

The proposed Plan provides a coordinated strategy for managing land use patterns and transportation investments to accommodate projected population growth. As the proposed Plan's transportation projects are tied to the proposed land use development pattern and the region's population projections, they are inherently designed to not promote growth in other locations in the region, or growth beyond projections. That is, the transportation projects in the proposed Plan are deliberately selected to complement a certain type of land development (balanced and compact) and discourage another type of development (imbalanced, sprawling, and on greenfields). Finally, the proposed Plan encourages localities to adopt land use policies and programs that promote focused growth rather than growth beyond targeted areas, such as urban growth boundaries and reduced parking requirements.

## ***Land Use Projects***

### ***Regional Effects***

#### **Jobs to Employed Residents**

Under the proposed Plan, the overall ratio of jobs to employed residents will remain stable at 1.04 at the regional level from 2010 to 2040. **Table 3.2-6** shows that the number of jobs (4.5 million in 2040) will outpace employed residents (4.35 million in 2040) by approximately 155,000. This job surplus is due in part to the historic inability of the Bay Area to provide affordable housing to meet demand. Generally speaking, there are people living outside the nine-county region that commute into the Bay Area to work. While improvements to specific transit stations or roadways may make parts of the Bay Area relatively more attractive places to live or work than they have been in the past, virtually all parts of the Bay Area are already in high demand, and the proposed Plan does not alleviate the existing challenges of restricted housing supply or escalating housing costs. This ratio of out-of-region workers remains constant with historic trends; therefore, as the overall number of jobs increases, the total number of in-commuting workers would be expected to increase proportionately.

At the county level, seven counties will see a slight increase in the ratio of jobs to employed residents, although in most cases the change is small. **Table 3.2-6** shows that all nine counties will maintain their existing status as net importers or exporters of workers from 2010 to 2040 under the proposed Plan. When comparing the jobs to employed residents balance in the proposed Plan to the 2040 No Project scenario (which assumes no changes to existing general plans), some variations are notable at the county level. Specifically, the distribution of jobs shifts under the proposed Plan with an increased concentration

in Alameda, San Francisco, and Santa Clara Counties and a decreased concentration in Contra Costa, Solano, and Sonoma counties. Under the No Project Alternative, net import/export of workers changes for two counties: San Mateo would shift to importing workers, and Santa Clara would begin to export workers.

**TABLE 3.2-6: 2010 & 2040 EMPLOYED RESIDENTS AND JOBS BY COUNTY AND NET IMPORTERS/EXPORTERS OF WORKERS**

County	Employed Residents			Jobs			Difference (Jobs – Employed Residents)			Jobs/ Employed Residents Ratio			Imports/Exports Workers		
	2010	2040 No Project	2040 Preferred Plan	2010	2040 No Project	2040 Preferred Plan	2010	2040 No Project	2040 Preferred Plan	2010	2040 No Project	2040 Preferred Plan	2010	2040 No Project	2040 Preferred Plan
Alameda	667,748	891,298	891,295	694,447	921,759	947,613	26,699	30,461	56,318	1.04	1.03	1.06	Imports	Imports	Imports
Contra Costa	442,299	579,093	579,088	344,921	539,131	465,453	-97,377	-39,962	-113,635	0.78	0.93	0.80	Exports	Exports	Exports
Marin	118,433	136,478	136,476	110,733	126,343	129,118	-7,700	-10,135	-7,358	0.93	0.93	0.95	Equal <sup>1</sup>	Equal <sup>1</sup>	Equal <sup>1</sup>
Napa	57,233	69,372	69,370	70,651	106,519	89,573	13,418	37,147	20,203	1.23	1.54	1.29	Imports	Imports	Imports
San Francisco	413,729	559,751	559,753	568,724	711,917	760,227	154,994	152,166	200,474	1.37	1.27	1.36	Imports	Imports	Imports
San Mateo	346,654	446,427	446,423	345,200	506,139	445,487	-1,454	59,712	-936	1.00	1.13	1.00	Equal <sup>1</sup>	Imports	Equal <sup>1</sup>
Santa Clara	822,743	1,158,874	1,158,878	926,264	1,135,257	1,229,756	103,522	-23,617	70,878	1.13	0.98	1.06	Imports	Exports	Imports
Solano	174,367	223,933	223,935	132,346	190,133	180,159	-42,021	-33,800	-43,776	0.76	0.85	0.80	Exports	Exports	Exports
Sonoma	225,494	284,825	284,828	192,013	268,021	257,833	-33,481	-16,804	-26,995	0.85	0.94	0.91	Exports	Exports	Exports
<b>Region</b>	<b>3,268,700</b>	<b>4,350,051</b>	<b>4,350,045</b>	<b>3,385,300</b>	<b>4,505,218</b>	<b>4,505,218</b>	<b>116,600</b>	<b>155,167</b>	<b>155,173</b>	<b>1.04</b>	<b>1.04</b>	<b>1.04</b>	<b>Imports</b>	<b>Imports</b>	<b>Imports</b>

1. Defined as difference of 15,000 or less.

Source: Association of Bay Area Governments, Metropolitan Transportation Commission, Dyett & Bhatia, 2012.

### Urbanized Land

Most of the local agencies in the Bay Area with land use jurisdiction over territory that lies along the urban/rural boundaries have adopted growth management plans, urban limit lines, urban reserve areas, community separators, conservation easements, parks, greenbelts, agricultural land preservation trusts, performance standards, and large lot rural and agricultural zoning to manage urban sprawl, irrespective of the presence or absence of interregional transportation facilities that connect urban centers (see research cited in *Chapter 2.3: Land Use*).

Through the FOCUS effort, which is a regional development and conservation strategy that promotes a more compact land use pattern for the Bay Area, regional agencies (MTC, ABAG, BCDC, and BAAQMD) are working together with local jurisdictions to create complete, livable communities in PDAs and preserve open space. Consistent with this effort, many jurisdictions have adopted incentive programs for infill development, particularly in transit corridors and around rail transit stations, some of which are supported by MTC's OneBayArea Grant (OBAG) program. By limiting sprawl, these policies reduce pressures for growth extending beyond the urbanized footprint.

The proposed Plan seeks to further focus growth in the urbanized footprint, with only 10,800 new acres of urbanized land in 2040, an increase of one percent over existing conditions. Anticipated urbanized land based on UrbanSim modeling is shown in **Table 3.2-7** by county. Urbanized land maintains a consistent ratio to overall land by county, within one percent throughout the region.

**TABLE 3.2-7: URBANIZED LAND BY COUNTY**

<i>County</i>	<i>Land Acres</i>	<i>2010 Urban Footprint<sup>1</sup></i>	<i>2010 Percent Urban Footprint</i>	<i>Increase in Urban Footprint<sup>2</sup></i>	<i>2040 Percent Urban Footprint</i>
Alameda	476,000	146,000	31%	1,900	31%
Contra Costa	481,000	152,000	32%	2,500	32%
Marin	336,000	42,000	13%	500	13%
Napa	505,000	24,000	5%	200	5%
San Francisco	30,000	24,000	80%	200	81%
San Mateo	290,000	73,000	25%	900	25%
Santa Clara	831,000	189,000	23%	1,000	23%
Solano	544,000	60,000	11%	1,800	11%
Sonoma	1,016,000	75,000	7%	1,500	8%
<b>Total</b>	<b>4,509,000</b>	<b>785,000</b>	<b>17%</b>	<b>10,500</b>	<b>18%</b>

1. Data for San Francisco is from 2008.

2. Future urbanized footprint is based on modeled future development of over eight people per acre and/or ten jobs per acre.

**Note:** Numbers may not sum due to independent rounding.

Source: MTC UrbanSim Data Rasters, 2012; Urban and Built Up Land, Farmland Mapping and Monitoring Program, Department of Conservation; 2010 Census TIGER/Line Shapefiles; Dyett & Bhatia, 2013.

### *Localized Effects*

Under the proposed Plan, employment and housing opportunities will be increasingly focused within PDAs. Locales identified as PDAs are nominated by local jurisdictions and are typically already important employment centers in the region. For example, in the three counties containing the highest number of jobs—Alameda, San Francisco, and Santa Clara—PDAs currently account for 44, 83, and 49 percent of total countywide jobs, respectively (see **Table 3.2-8**). By 2040, the percentage of jobs located in PDAs is anticipated to rise in all counties and in the region as a whole. Furthermore, the rate of job growth between 2010 and 2040 will increase more quickly in PDAs (47 percent) than in the rest of the region (33 percent).

Similarly, the percentage of employed residents that reside in PDAs varies significantly by county, from a low of 2 percent in Napa to a high of 48 percent in San Francisco. Under the proposed Plan, the percentage of employed residents that reside in PDAs is anticipated to increase significantly. On a regional basis, the percentage will increase to 35 percent in 2040 from 24 percent in 2010 (see **Table 3.2-9**). The rate of growth between 2010 and 2040 will also increase much more quickly in PDAs (90 percent) than in the rest of the region (33 percent).

As they are currently, PDAs will remain net importers of workers over the time horizon of the proposed Plan, although the imbalance between jobs and employed residents in PDAs will be less substantial over time. Overall, PDAs will shift from 1.98 jobs for each employed resident to 1.53 jobs for each employed resident. This shift occurs as a result of efforts in PDAs to draw new housing into these areas.

**TABLE 3.2-8: 2010 & 2040 JOB GROWTH IN COUNTIES AND PDA'S**

<i>Counties</i>	<i>Jobs in County</i>	<i>Jobs in PDAs</i>	<i>% Jobs in PDAs</i>	<i>Jobs in County</i>	<i>Jobs in PDAs</i>	<i>% Jobs in PDAs</i>	<i>% Change County</i>	<i>% Change PDAs</i>
<i>Year</i>	<i>2010</i>			<i>2040 Proposed Plan</i>				
Alameda	694,447	307,735	<b>44.3</b>	947,613	484,587	<b>51.1</b>	<b>36.5</b>	<b>57.5</b>
Contra Costa	344,921	111,848	<b>32.4</b>	465,453	180,472	<b>38.8</b>	<b>34.9</b>	<b>61.4</b>
Marin	110,733	16,178	<b>14.6</b>	129,118	20,321	<b>15.7</b>	<b>16.6</b>	<b>25.6</b>
Napa	70,651	12,240	<b>17.3</b>	89,573	15,686	<b>17.5</b>	<b>26.8</b>	<b>28.2</b>
San Francisco	568,724	471,565	<b>82.9</b>	760,227	634,446	<b>83.5</b>	<b>33.7</b>	<b>34.5</b>
San Mateo	345,200	115,710	<b>33.5</b>	445,487	175,441	<b>39.4</b>	<b>29.1</b>	<b>51.6</b>
Santa Clara	926,264	449,181	<b>48.5</b>	1,229,756	663,986	<b>54.0</b>	<b>32.8</b>	<b>47.8</b>
Solano	132,346	25,326	<b>19.1</b>	180,159	41,325	<b>22.9</b>	<b>36.1</b>	<b>63.2</b>
Sonoma	192,013	64,830	<b>33.8</b>	257,833	95,998	<b>37.2</b>	<b>34.3</b>	<b>48.1</b>
<b>Region</b>	<b>3,385,300</b>	<b>1,574,613</b>	<b>46.5</b>	<b>4,505,218</b>	<b>2,312,262</b>	<b>51.3</b>	<b>33.1</b>	<b>46.8</b>

Source: Association of Bay Area Governments, Metropolitan Transportation Commission, Dyett & Bhatia, 2012.

**TABLE 3.2-9: 2010 & 2040 EMPLOYED RESIDENT GROWTH IN COUNTIES AND PDA'S**

<i>Counties</i>	<i>Employed Residents in County</i>	<i>Employed Residents in PDAs</i>	<i>% Employed Residents in PDAs</i>	<i>Employed Residents in County</i>	<i>Employed Residents in PDAs</i>	<i>% Employed Residents in PDAs</i>	<i>% Change County</i>	<i>% Change PDAs</i>
<i>Year</i>	<i>2010</i>			<i>2040</i>				
Alameda	667,748	201,941	<b>30.2</b>	891,295	349,013	<b>39.2</b>	<b>33.5</b>	<b>72.8</b>
Contra Costa	442,299	50,303	<b>11.4</b>	579,088	119,981	<b>20.7</b>	<b>30.9</b>	<b>138.5</b>
Marin	118,433	8,677	<b>7.3</b>	136,476	12,637	<b>9.3</b>	<b>15.2</b>	<b>45.6</b>
Napa	57,233	1,180	<b>2.1</b>	69,370	3,593	<b>5.2</b>	<b>21.2</b>	<b>204.5</b>
San Francisco	413,729	198,938	<b>48.1</b>	559,753	320,430	<b>57.2</b>	<b>35.3</b>	<b>61.1</b>
San Mateo	346,654	81,304	<b>23.5</b>	446,423	146,781	<b>32.9</b>	<b>28.8</b>	<b>80.5</b>
Santa Clara	822,743	205,790	<b>25.0</b>	1,158,878	455,003	<b>39.3</b>	<b>40.9</b>	<b>121.1</b>
Solano	174,367	7,880	<b>4.5</b>	223,935	31,565	<b>14.1</b>	<b>28.4</b>	<b>300.6</b>
Sonoma	225,494	39,290	<b>17.4</b>	284,828	71,811	<b>25.2</b>	<b>26.3</b>	<b>82.8</b>
<b>Region</b>	<b>3,268,700</b>	<b>795,302</b>	<b>24.3</b>	<b>4,350,045</b>	<b>1,510,815</b>	<b>34.7</b>	<b>33.1</b>	<b>90.0</b>

Source: Association of Bay Area Governments, Metropolitan Transportation Commission, Dyett & Bhatia, 2012.

## **Transportation Projects**

### *Regional Effects*

The quality of the regional transportation system serving the San Francisco Bay Area has a limited role in stimulating overall growth compared to factors related to land use policy. All things considered, it is unlikely that the transportation system operations, maintenance, improvements, and expansion contemplated in the proposed Plan will be of sufficient magnitude, compared to the in-place transportation system, to stimulate new growth beyond the 30 percent increase in population and 33 percent increase in jobs forecast for the region. This is due to several factors:

1. Historically, transportation investment in general, and increased transportation capacity in particular, lag behind the growth that occurs in the Bay Area. The proposed Plan adds 687 roadway lane miles (three percent increase); a significant component of this increase is the Regional Express Lanes Network on many of the region's most congested freeway corridors, and highway widening projects are responsible for the remainder of the freeway capacity increases. The Plan also adds 30,983,000 transit seat miles (27 percent increase). Both roadway and transit expansions occur at lower rates than the 30 percent increase in population and 33 percent increase in jobs. The situation is likely to continue with the limited fiscal resources for expansion of transportation system capacity.
2. Due to the maturity of development in the region and the existing transportation system and mode choices already available, incremental corridor improvements are expected to play a minimal role in attracting or inducing new development to the region as a whole. The regional health of the economy, the diversity of arts and cultural activities, the stature of the educational system, particularly the universities and their research programs, the strength of local, regional and international markets, and interregional transportation costs are all more important influences on interregional location decisions.
3. The rising cost of gasoline, coupled with a burgeoning concern for sustainable development and climate change, seem to be resulting in changes in local land use and investment decision-making geared toward fewer car trips, smaller cars, transit accessibility, infill development, and overall reduced environmental impacts of Bay Area lifestyles.

As indicated in Chapter 2.1 of this EIR, overall mobility in the region will be more constrained in 2040 than it was in 2010, even with implementation of the proposed Plan. There will be more peak period congestion and more total vehicle hours of delay. The increases in total regional travel activity, however, are not caused by the implementation of the proposed Plan. Since the levels of trip-making, VMT, vehicle hours of delay, and average delay per trip are higher for the No Project Alternative, it is clear that these impacts are due to projected regional growth in population, jobs, and workers, rather than the proposed Plan's land use and transportation infrastructure. However, auto modes (drive alone and carpool) are expected to experience small commute travel time reductions, while transit and bicycle modes are forecasted to be minimally impacted by slightly greater commute travel times. This result is primarily a result of mode shift. Still, increasing congestion overall could discourage new firms from locating in the Bay Area or cause some existing firms to consider relocating away from the region. Consequently, to the extent that the transportation network has any effect on regional growth, it is likely that insufficient transportation infrastructure may decrease, rather than increase, the projected rates of population and employment growth.

The proposed Plan would result in significant investments and improvements in the regional transportation system in support of planned growth. In theory, transportation improvements can remove impediments to growth by providing access and roadway capacity to new areas for development and, depending on location, creating roadway capacity that induces travel. In this case, however, the transportation network is made to fit to the land use plan. As established above, this transportation system investment is integrally linked to, and balanced with, the housing and employment needed to accommodate the projected population of the region. In other words, rather than eliminating obstacles to growth, the proposed Plan accommodates growth that is outside the regulatory control of MTC and ABAG.

### *Localized Effects*

The proposed Plan provides for an increase in transit supply substantially larger than that of highway capacity (as noted above). In this respect, the proposed Plan has a city-centered focus and gives priority to transportation improvements that serve urbanized locations. In general, transportation improvements contained within the proposed Plan seek to support infill development or urban redevelopment, which could affect housing demand in these areas. For instance, in some areas, improved transit might be one factor facilitating urban infill development and improving the overall jobs-housing balance. While any decision to amend local general plans for higher density or a better jobs-housing balance remains a local decision, the proposed Plan seeks to support more population and/or employment growth in these areas with better transit access than is currently anticipated in the local general plans. As described above, improving the jobs-housing balance by drawing more housing into PDA areas is an alternative to urban sprawl and regional growth outside of urban areas, consistent with SB 375, and does not necessarily contribute to growth of the regional population as a whole.

### *Combined Effects*

In conclusion, the proposed Plan is not likely to have an overall regional population or employment growth-inducing effect. Rather, provision of transportation infrastructure is expected to continue to lag behind regional population and employment growth during the term of the proposed Plan. Localized densification effects would accommodate, not stimulate regional growth projections. While the proposed Plan would continue to import employed residents, this is consistent with historic trends, and does not represent inducement of growth outside the region beyond that which is reasonably expected. Further, as described above, land use authority resides entirely with cities and counties at the local level, meaning that MTC and ABAG cannot approve new development; and the proposed Plan was designed to accommodate, rather than to encourage, regional growth in a sustainable manner consistent with the goals of SB 375.

Based on these observations about the nature of population and job growth in the Bay Area, the indirect transportation effects of the proposed Plan on long-term population and economic growth are expected to be minimal. Therefore, the overall effect of the proposed Plan on growth inducement is considered less than significant (LS). No mitigation is required.

## **CUMULATIVE IMPACTS**

Section 15130 of the CEQA Guidelines requires that an EIR evaluate potential environmental impacts that are individually limited but cumulatively significant. CEQA defines cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (CEQA Guidelines § 15355). “‘Cumulatively considerable’ means

that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects” (CEQA Guidelines § 15065(a)(3)). This means that cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

Plan Bay Area, which includes region-wide transportation improvements and land use development patterns in the Bay Area to accommodate projected regional growth through 2040, is a cumulative plan by definition. As such, the environmental analysis included throughout this EIR is a cumulative analysis compliant with the requirements of CEQA and the CEQA Guidelines. All of the impacts addressed in *Part Two* are considered cumulative and therefore are not repeated here.

### **IMPACTS FOUND NOT TO BE SIGNIFICANT**

This EIR focuses on potentially significant impacts. CEQA requires that an EIR provide a brief statement indicating why various possible significant impacts were determined to not be significant and were not discussed in detail. For the issue areas addressed in *Part Two*, all potential impacts are identified, regardless of their magnitude.

Mineral resources are the only issue area determined to not be significant and not addressed in this EIR. Plan Bay Area will not affect mineral resources, since no substantive mineral resources have been identified in areas where new development and/or transportation projects will occur.

*This page intentionally left blank.*