

Agenda Item 4



METROPOLITAN
TRANSPORTATION
COMMISSION

Joseph P. Bort MetroCenter
101 Eighth Street
Oakland, CA 94607-4700
TEL 510.817.5700
TDD/TTY 510.817.5769
FAX 510.817.5848
E-MAIL info@mtc.ca.gov
WEB www.mtc.ca.gov

Memorandum

TO: Policy Advisory Council

DATE: April 3, 2013

FR: Ken Kirkey

W.I. 1114

RE: Draft Plan Bay Area

The **Draft Plan Bay Area** document was issued on Friday, May 22nd, and is now available for review on the OneBayArea web site at

<http://onebayarea.org/regional-initiatives/plan-bay-area/draft-plan-bay-area.html>

The accompanying **Draft Environmental Impact Report** (EIR) for Plan Bay Area was issued on Tuesday, April 2nd, and is also available for review on the OneBay Area web site at

<http://onebayarea.org/regional-initiatives/plan-bay-area/plan-elements/environmental-impact-report.html>

Also, the **Equity Analysis** for Plan Bay Area has been completed, and results can be found online at

<http://onebayarea.org/regional-initiatives/plan-bay-area/plan-elements/equity-analysis.html>

In addition, the **Draft 2013 Transportation Improvement Program** (TIP) can be found in its entirety at <http://www.mtc.ca.gov/funding/tip/2013/>

And the **Draft Air Quality Conformity Analysis** can be found at

http://onebayarea.org/pdf/Draft_Plan_Bay_Area/Draft_AQ_Conformity_Analysis.pdf

Attached for your convenience are the executive summaries (or overview) for the Draft Plan Bay Area (Attachment A), the Draft Environmental Impact Report (Attachment B), and the Draft TIP (Attachment C). While there is not a summary of the Equity Analysis, your Equity and Access Subcommittee has been involved in its development and can give a report at your meeting. Some of the key findings of the Equity Analysis can be found on Pages 108-111 of the Draft Plan Bay Area.

MTC Planning staff will attend your April 10th meeting to give an overview of each of these planning efforts; a copy of that presentation is also attached (Attachment D).

Attachments

J:\COMMITTE\Policy Advisory Council\Meeting Packets\2013\04_April_2013\4_Draft_Plan_Bay_Area.docx

Strategy for a Sustainable Region

Draft Plan BayArea March 2013



**Association of
Bay Area
Governments**



**Metropolitan
Transportation
Commission**

Draft Plan Bay Area

Table of Contents

Introducing Plan Bay Area Strategy for a Sustainable Region	1
Chapter 1 Setting Our Sights	17
Chapter 2 The Bay Area in 2040	29
Chapter 3 Where We Live, Where We Work	41
Chapter 4 Investments	61
Chapter 5 Performance	95
Chapter 6 A Plan to Build On	121
What's Next for Plan Bay Area?	135
Appendix 1 Supplementary Reports and Additional Resources	137
Appendix 2 Maps	139

San Francisco Bay Area: Transportation and Land Uses

Legend

- Urbanized area
- Open space
- Priority Development Area (PDA)
- Priority Conservation Area (PCA)

ROADS

- Freeway
- Major Road

RAIL SYSTEM

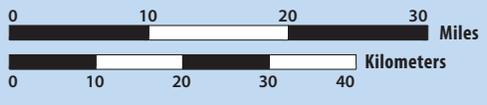
- Altamont Corridor Express
- Amtrak
- BART
- Caltrain
- Light Rail (Muni & VTA)
- Cable Car (Muni)

Oakland
 > 350,000

Novato
 50,000–350,000

Pacifica
 <50,000

San Francisco Bay Area – Transportation and Land Uses | 3.20.13



Introducing Plan Bay Area: Strategy for a Sustainable Region

Most of us living in the nine counties that touch San Francisco Bay are accustomed to saying we live in “the Bay Area.” This simple phrase speaks volumes — and underscores a shared regional identity. The 7 million of us who call the nine-county San Francisco Bay Area home have a strong interest in protecting the wealth of features that make our region a magnet for people and businesses from around the globe.

The Bay Area is, after all, the world’s 21st-largest economy. The natural beauty of San Francisco Bay and the communities surrounding it,

“The Bay Area has made farsighted regional planning a top priority for decades.”

our Mediterranean climate, extensive system of interconnected parks and open space, advanced mass transit system, top-notch educational institutions, and rich cultural heritage continue to draw people who seek better opportunities. Yet we cannot take for granted that we will be able to sustain and improve our quality of life for current and future generations.

With our region’s population projected to swell to some 9 million people by 2040, Plan Bay Area charts a course for accommodating this growth while fostering an innovative, prosperous and competitive economy; preserving a healthy and safe environment; and allowing all Bay Area residents to share the benefits of vibrant, sustainable communities connected by an efficient and well-maintained transportation network.

A Legacy of Leadership

Plan Bay Area, while comprehensive and forward-reaching, is an evolutionary document. The Bay Area has made farsighted regional planning a top priority for decades. Previous generations recognized the need for a mass transit system, including regional systems such as BART and Caltrain that have helped make our region the envy of other metropolitan areas. Our transbay bridges add cohesion to the regional transportation system by connecting communities across the bay. Likewise, we owe our system of parks and open space to past generations of leaders who realized that a balance between urbanized areas and open space was essential to a healthy environment and vibrant communities.

Plan Bay Area extends this legacy of leadership, doing more of what we've done well while also mapping new strategies to face new challenges. Among the new challenges are the requirements of California's landmark 2008 climate law (SB 375, Steinberg): to decrease greenhouse gas emissions from cars and light trucks, and to accommodate all needed housing growth within our nine counties. By coordinating future land uses with our long-term transportation investments, Plan Bay Area meets these challenges head on — without compromising local control of land-use decisions. Each of the Bay Area's nine counties and 101 cities must decide for themselves what is best for their citizens and their communities.



Caltrans

Building Upon Local Plans and Strategies

For over a decade, local governments and regional agencies have been working together to encourage the growth of jobs and production of housing in areas supported by amenities and infrastructure. In 2008, the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) created a regional initiative to support these local efforts called FOCUS. In recent years, this initiative has helped to link local community development aspirations with regional land use and transportation planning objectives. Local governments have identified Priority Development Areas (PDAs) and Priority Conservation Areas (PCAs), and these form the implementing framework for Plan Bay Area.

PDAs are areas where new development will support the day-to-day needs of residents and workers in a pedestrian-friendly environment served by transit. While PDAs were originally established to address housing needs in infill communities, they have been broadened to advance focused employment growth. Local jurisdictions have defined the character of their PDAs according to existing conditions and future expectations as regional centers, city centers, suburban centers or transit town centers, among other place types. PCAs are regionally significant open spaces for which there exists broad consensus for long-term protection but

California Senate Bill 375: Linking Regional Plans to State Greenhouse Gas Reduction Goals

Plan Bay Area grew out of “The California Sustainable Communities and Climate Protection Act of 2008” (California Senate Bill 375, Steinberg), which requires each of the state’s 18 metropolitan areas — including the Bay Area — to reduce greenhouse gas emissions from cars and light trucks. Signed by former Gov. Arnold Schwarzenegger, the law requires that the Sustainable Communities Strategy (SCS) promote



compact, mixed-use commercial and residential development. To meet the goals of SB 375, Plan Bay Area directs more future development in areas that are or will be walkable and bikable and close to public transit, jobs, schools, shopping, parks, recreation and other amenities. Key elements of SB 375 include the following.

- The law requires that the Bay Area and other California regions develop a Sustainable Communities Strategy (SCS) — a new element of the regional transportation plan (RTP) — to strive to reach the greenhouse gas (GHG) reduction target established for each region by the California Air Resources Board. The Bay Area’s target is a 7 percent per capita reduction by 2020 and a 15 percent per capita reduction by 2035. Plan Bay Area is the region’s first RTP subject to SB 375.
- In the Bay Area, the Association of Bay Area Governments (ABAG) is responsible for the land use and housing assumptions for the SCS, which adds three new elements to the RTP: (1) a land use component that identifies how the region could house the region’s entire population over the next 25 years; (2) a discussion of resource and farmland areas; and (3) a demonstration of how the development pattern and the transportation network can work together to reduce GHG emissions.
- Extensive outreach with local government officials is required, as well as a public participation plan that includes a minimum number of workshops in each county as well as three public hearings on the draft SCS prior to adoption of a final plan.
- The law synchronizes the regional housing need allocation (RHNA) process — adopted in the 1980s — with the regional transportation planning process.
- Finally, SB 375 streamlines the California Environmental Quality Act (CEQA) for housing and mixed-use projects that are consistent with the SCS and meet specified criteria, such as proximity to public transportation.

nearer-term development pressure. PDAs and PCAs complement one another because promoting development within PDAs takes development pressure off the region’s open space and agricultural lands.

Building upon the collaborative approach established through FOCUS, local input has driven the set of alternative scenarios that preceded and informed the development of Plan Bay Area.

The non-profit and business communities also played a key role in shaping the plan. Business groups highlighted the need for more affordable workforce housing, removing regulatory barriers to infill development, and addressing infrastructure needs at rapidly growing employment centers. Environmental organizations emphasized the need to improve transit access, retain open space, provide an adequate supply of housing to limit the number of people commuting into the region from nearby counties, and direct discretionary transportation funding to communities building housing in PDAs. Equity organizations focused on increasing access to housing and employment for residents of all income categories throughout the region, and establishing policies to limit the displacement of existing residents as PDAs grow and evolve. All of these diverse voices strengthened this plan.

Setting Our Sights

Developing a long-range land use and transportation plan for California’s second-largest metropolitan region, covering about 7,000 square miles across nine Bay Area counties, is no simple task. We set our sights on this challenge by emphasizing an open, inclusive public outreach process and adopting objective performance standards based on federal and state requirements to measure our progress during the planning process.

Reaching Out

We reached out to the people who matter most — the 7 million people who live in the region. Thousands of people participated in stakeholder sessions, public workshops, telephone and internet surveys, and more. Befitting the Bay Area, the public outreach process was boisterous and contentious. Key stakeholders also included the region’s 101 cities and nine counties; our fellow



Noah Berger

regional agencies, the Bay Conservation and Development Commission and the Bay Area Air Quality Management District; community-based organizations and advocacy groups, and some three dozen regional transportation partners. (See “Plan Bay Area Prompts Robust Dialogue on Transportation and Housing,” in Chapter 1.)

Establishing Performance Targets

Before proposing a land use distribution approach or recommending a transportation investment strategy, planners must formulate in concrete terms the hoped-for outcomes. For Plan Bay Area, performance targets are an essential means of informing and allowing for a discussion of quantitative metrics. After months of discussion and debate, ABAG and MTC adopted 10 targets in January 2011, reflecting input from the broad range of stakeholders engaged in the process.

Two of the targets are not only ambitious; they are also mandated by state law. The first mandatory target addresses climate protection by requiring the Bay Area to reduce its per-capita CO₂ emissions from cars and light-duty trucks by 15 percent by 2040. The second mandatory target addresses adequate housing by requiring the region to house 100 percent of its projected population growth by income level. Plan Bay Area achieves both these major milestones.

The eight voluntary targets seek to promote healthy and safe communities by reducing premature deaths from air pollution, reducing injuries and fatalities from collisions, increasing the amount of time people walk or cycle for transportation, and protecting open space and agricultural lands. Other targets address equity concerns, economic vitality and transportation system effectiveness. Plan Bay Area meets some, but not all, of the voluntary targets. (See Chapter 1, Table 1 for a summary of all the Plan Bay Area performance targets.)

Taking Equity Into Account

About one-fifth of the Bay Area's total population lives in areas with large numbers of low-income and minority populations. Promoting these people's access to housing, jobs and transportation not only advances Plan Bay Area's objective to advance equity in the region, it also increases our chances of meeting the other performance targets. MTC and ABAG adopted five Equity Analysis measures to evaluate equity concerns: housing and transportation affordability, potential for displacement, healthy communities, access to jobs, and equitable mobility. (See Chapter 1, Table 2: "Plan Bay Area Equity Performance Measures.")



MTC Archives

Planning Scenarios Take Aim at Performance Targets

Taken together, the Plan Bay Area performance targets outline a framework that allows us to better understand how different projects and policies might affect the region's future. With the targets clearly identified, MTC and ABAG formulated possible scenarios — combinations of land use patterns and transportation investments — that could be evaluated together to see if (and by how much), they achieved (or fell short of) the performance targets. An iterative process of scenario-testing begun in 2010 yielded preferred alternatives, both for transportation investments and a land use strategy. Adopted by the boards of MTC and ABAG in May 2012, they form this draft Plan Bay Area.

Looking Toward the Future

ABAG and MTC track and forecast the region's demographics and economic trends to inform and guide Plan Bay Area investments and policy decisions. The forecasts reflect the best picture we have of what the Bay Area may look like in 2040, so that today's decisions may align with tomorrow's expected transportation and housing needs. These forecasts form the basis for developing the regional land use plan for Plan Bay Area's Sustainable Communities Strategy (SCS), and, in turn, the region's transportation investment strategy.

Project-Level Performance Assessment of Transportation Projects

By developing the preferred land use and transportation investment strategies, ABAG and MTC were able to answer many big picture questions about the Bay Area's future. For example, should the region focus on expanding the transportation system or on maintaining what we have already built? And should the Bay Area invest more in transit for future generations or emphasize highway projects to improve the commutes of today's drivers? And how should our transportation investments support future growth in employment and housing?

Plan Bay Area also is based on a commitment to evaluate individual transportation projects to make sure dollars are being allocated to the most cost-effective projects. In order to take a closer look at major transportation projects, MTC performed a project performance assessment, examining billions of dollars of potential transportation projects to identify the highest-performing investments across the region. This enabled funding prioritization for the highest-performing projects. Most



of them focused on leveraging existing assets and improving their efficiency, while supporting future development. Notable projects include BART Metro, which will increase service frequencies on the highest-demand segment of the BART system, and San Francisco's congestion pricing initiatives. (See Chapter 5 for a list of high-performing projects.)

Projections in three main areas informed development of the plan: population, employment and housing. Here are some highlights of each.

- **Population:** By 2040 the San Francisco Bay Area is projected to add 2.1 million people, increasing total regional population from 7.2 million to 9.3 million, an increase of 30 percent or roughly 1 percent per year. This growth means the Bay Area will continue to be California's second-largest population and economic center.
- **Employment:** The number of jobs is expected to grow by 1.1 million between 2010 and 2040, an increase of 33 percent. This is a slower rate of job growth than previous forecasts.
- **Housing:** During this same time period the number of households is expected to increase by 27 percent to 700,000, and the number of housing units is expected to increase by 24 percent to 660,000.

The demographic implications of these topline numbers are far-reaching, and some trends in particular weighed heavily in the development of Plan Bay Area. These are touched on below and examined in greater detail in Chapter 2.

Aging Baby Boomers Expected to Change Travel and Development Patterns

The U.S. Census Bureau defines baby boomers as people who were born between 1946 and 1964 during the post-World War II baby boom. By 2040 the oldest baby boomers will be in their 90s and the youngest will be in their 70s. Today, people who are 65 and over represent 12 percent of the Bay Area’s total population, but by 2040 the number of seniors will increase to 22 percent. That’s more than 1 in 5 people in our region. It is expected that many of these seniors will relocate to smaller homes in more urban locations to have easier access to essential services and amenities and the Bay Area’s extensive transit system.

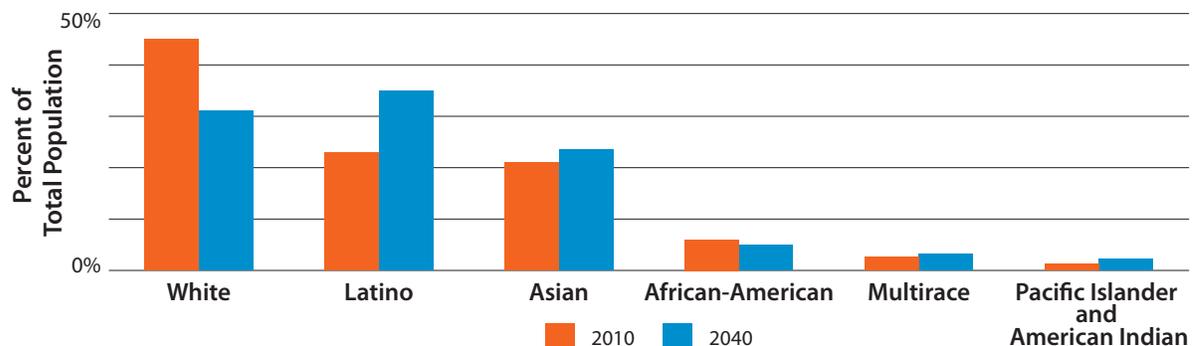
Mobility will be a special challenge for seniors who lose their ability to drive. MTC’s Lifeline Transportation Program supports projects that address mobility and accessibility needs of low-income and disabled people throughout the region. Between 2006 and 2012, roughly \$172 million was invested to support about 220 projects. Closely related are MTC programs that provide funding to sustain and improve mobility for elderly and disabled persons in accordance with and even beyond the requirements of the Americans with Disabilities Act (ADA). These types of projects have included travel training, sidewalk and bus stop improvements, supportive ride programs and other community initiatives. Plan Bay Area reaffirms the importance of Lifeline and Elderly & Disabled programs by adding over \$800 million in discretionary funding for the Lifeline program, and almost \$240 million for the Elderly & Disabled programs over the 28-year period of the plan.



Increased Racial and Ethnic Diversity Will Increase Demand for Multifamily Housing

The Bay Area and California are at the forefront of one of the greatest demographic changes in our nation’s history: growth in the Latino population. In January 2013 the California Department of Finance projected that the state’s Hispanic population will equal the non-Hispanic

Figure 1 Share of Population by Race and Ethnicity, 2010 and 2040



Sources: 2010 Census, California Department of Finance, ABAG

white population by mid-2013. By early 2014 it expects that California’s Hispanic population will have become a plurality for the first time in state history.

This state forecast aligns with Plan Bay Area’s projection that by 2040 the Bay Area population will become substantially more racially and ethnically diverse. Latinos will emerge as the largest ethnic group, increasing from 23 percent to 35 percent of the total population. The number of Asians also will increase, growing from 21 percent to about 24 percent of the population. Both population groups have demonstrated an historic preference for multifamily housing, and they form multigenerational households at a higher rate than the general population. This is expected to drive higher demand for multifamily housing, in contrast to the historic development pattern of building primarily single-family homes. Likewise, many Latinos and Asians rely more on public transit than non-Hispanic whites. This, too, is expected to increase demand for a robust transit system that makes it easier for people who don’t own cars to commute, shop and access essential services.

Demand for Multi-Unit Housing in Urban Areas Close to Transit Expected to Increase

Single-family homes represent the majority of housing production in recent decades, but recent trends suggest that cities once again are becoming centers of population growth. Construction of multifamily housing in urban locations in the Bay Area increased from an average of 35 percent of total housing construction in the 1990s to nearly 50 percent in the 2000s. In 2010 it represented 65 percent of all housing construction.



The Crossings, Mountain View

As discussed above, demand for multifamily housing is projected to increase as seniors downsize and seek homes in more urban locations. The growing numbers of Latino and Asian households will create a similar shift in the housing market. Finally, population growth of those aged 34 and younger is expected to have a similar effect, as this demographic group also demonstrates a greater preference for multifamily housing. All told, the number of people per Bay Area household is expected to increase from 2.69 in 2010 to 2.75 in 2040. Market demand for new homes will tilt toward townhomes, condominiums and apartments in developed areas near transit, shops and services.

Building a Development Pattern That Aligns With Where We Live and Work

Plan Bay Area provides a vision for how to retain and enhance the qualities that make the Bay Area a great place to live, work, and play. It builds on the legacy of leadership left to us by previous generations. In fact, many of the attributes that make the Bay Area special — a strong

economy, protected natural resources, a network of diverse neighborhoods — would not have been possible without our predecessors' forward-thinking actions.

Looking ahead to the growth expected in the Bay Area over the next several decades, we face many similar problems as past generations, while also confronting new challenges that threaten the region's economic vitality and quality of life. Our economy is still recovering from the Great Recession of 2007-2009, which has resulted in uneven job growth throughout the region, increased income disparity, and high foreclosure rates. At the same time, housing costs have risen for renters and, to a lesser degree, for home buyers close to the regions' job centers. Finally, Bay Area communities face these challenges at a time when there are fewer public resources available than in past decades for investments in infrastructure, public transit, affordable housing, schools and parks.

A More Focused Future

The planning scenarios and land use and transportation investment strategies developed during the Plan Bay Area process seek to address the needs and aspirations of each Bay Area jurisdiction, as identified in locally adopted general plans and zoning ordinances. They also aim to meet the Plan Bay Area performance targets and equity performance standards. The framework for developing these scenarios consisted largely of the Priority Development Areas (PDAs) and Priority Conservation Areas (PCAs) recommended by local governments. The preferred land use scenario identified in Chapter 3 is a flexible blueprint for accommodating growth over the long term. Pairing this development pattern with the transportation investments described in Chapter 4 is what makes Plan Bay Area the first truly integrated land use transportation plan for the region's anticipated growth.



Richmond Transit Village

Peter Beeler

2040 Employment Distribution Highlights

Plan Bay Area’s distribution of jobs throughout the region is informed by changing trends in the locational preferences of the wide range of industry sectors and business place types in the Bay Area. These trends capture ongoing geographic changes, as well as changes in the labor force composition and workers’ preferences. The employment distribution directs job growth toward the region’s larger cities and Priority Development Areas with a strong existing employment base and communities with stronger opportunities for knowledge-sector jobs.

Table 1 SF Bay Area Total Job Growth 2010-2040, Top 15 Cities

Rank	Jurisdiction	Total Jobs		2010-2040 Job Growth	
		2010	2040	Total Growth	Percentage Growth
1	San Francisco	568,720	759,470	190,740	34%
2	San Jose	375,360	522,050	146,680	39%
3	Oakland	190,250	275,490	85,240	45%
4	Santa Clara	112,460	145,560	33,100	29%
5	Fremont	89,900	119,870	29,970	33%
6	Palo Alto	89,370	119,030	29,650	33%
7	Santa Rosa	75,460	103,930	28,470	38%
8	Berkeley	77,020	99,220	22,210	29%
9	Concord	47,520	69,310	21,790	46%
10	Hayward	69,100	89,900	20,800	30%
11	Sunnyvale	74,610	95,320	20,710	28%
12	San Mateo	52,930	73,460	20,530	39%
13	Redwood City	58,340	77,830	19,490	33%
14	Walnut Creek	41,650	57,300	15,650	38%
15	Mountain View	47,800	63,380	15,570	33%

Source: Jobs-Housing Connection Strategy, ABAG, 2012

Almost 40 percent of the jobs added from 2010 to 2040 will be in the region’s three largest cities — San Jose, San Francisco and Oakland — which accounted for about one-third of the region’s jobs in 2010. Two-thirds of the overall job growth is anticipated to be in PDAs throughout the region. Due to the strength of the knowledge sector, nine of the 15 cities expected to experience the greatest job growth are in the western and southern part of the region surrounding Silicon Valley. The remaining communities expecting high levels of job growth are in the East Bay and North Bay, owing to their strong roles in the current economy, diverse employment base, and their proximity to a large base of workers. The 15 cities expected to experience the most job growth will account for roughly 700,000 jobs, or just over 60 percent of the new jobs added in the region by 2040. (See Table 1 above.)

2040 Housing Distribution Highlights

The Plan Bay Area housing distribution is guided by the policy direction of the ABAG Executive Board, which voted in July 2011 to support equitable and sustainable development by “maximizing the regional transit network and reducing GHG emissions by providing convenient access to employment for people of all incomes.” This was accomplished by distributing total housing growth numbers to: 1) job-rich cities that have PDAs or additional areas that are PDA-like; 2) areas connected to the existing transit infrastructure; and 3) areas that lack sufficient affordable housing to accommodate low-income commuters. The housing distribution directs growth to locations where the transit system can be utilized more efficiently, where workers can be better connected to jobs, and where residents can access high-quality services.

Table 2 SF Bay Area Total Housing Unit Growth 2010-2040, Top 15 Cities

Rank	Jurisdiction	Total Housing Units		2010-2040 Housing Unit Growth	
		2010	2040	Total Growth	Percentage Growth
1	San Jose	314,040	443,210	129,170	41%
2	San Francisco	376,940	469,350	92,410	25%
3	Oakland	169,710	221,200	51,490	30%
4	Sunnyvale	55,790	74,780	18,990	34%
5	Concord	47,130	65,170	18,040	38%
6	Fremont	73,990	91,610	17,620	24%
7	Santa Rosa	67,400	83,420	16,020	24%
8	Santa Clara	45,150	58,920	13,770	30%
9	Milpitas	19,810	32,430	12,620	64%
10	Hayward	48,300	60,580	12,290	25%
11	Fairfield	37,180	48,280	11,100	30%
12	San Mateo	40,010	50,180	10,160	25%
13	Richmond	39,330	49,020	9,690	25%
14	Livermore	30,340	40,020	9,670	32%
15	Mountain View	33,880	43,270	9,390	28%

Source: Jobs-Housing Connection Strategy, ABAG, 2012

Substantial housing production is expected on the Peninsula and in the South Bay, where eight of the top 15 cities expected to experience the most housing growth are located. Two-thirds of the region’s overall housing production is directed to these 15 cities, leaving the more than 90 remaining jurisdictions in the region to absorb only limited growth. This development pattern preserves the character of more than 95 percent of the region by focusing growth on less than 5 percent of the land. (See Table 2 above.)

Transportation Investments



John Benson

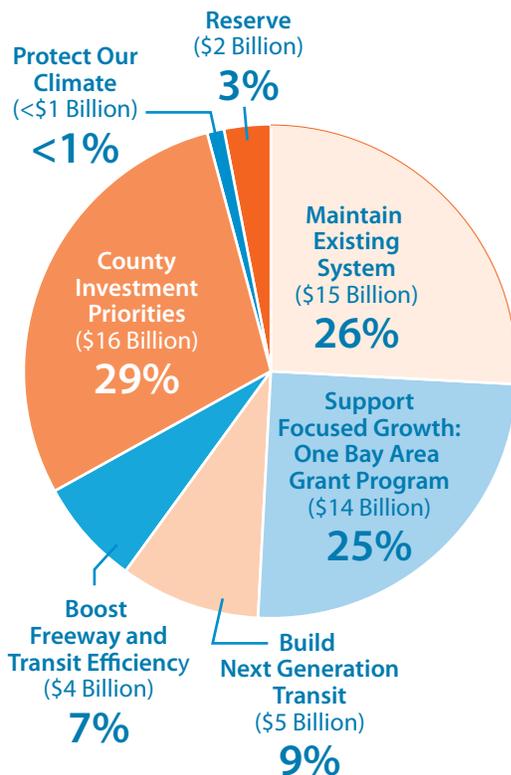
Caltrain Baby Bullet train

Plan Bay Area structures an infrastructure investment plan in a systematic way to support the region’s long-term land use strategy, relying on a performance assessment of scenarios and individual projects. The plan makes investments in the region’s transportation network that support job growth and new homes in existing communities by focusing the lion’s share of investment on maintaining and boosting the efficiency of the existing transit and road system. Plan Bay Area also takes a

bold step with strategic investments that provide support for focused growth in Priority Development Areas, including the new One Bay Area Grant program.

Plan Bay Area transportation revenue forecasts total \$289 billion over the 28-year period. Over two-thirds (68 percent) of these funds are from regional and local sources, primarily dedicated sales tax programs and bridge tolls. Making up the remainder of the pie are state and federal revenues (mainly derived from fuel taxes). Of the total revenues, \$57 billion are “discretionary,” or available for assignment to projects and programs through Plan Bay Area.

Figure 2 Plan Bay Area — Discretionary Investment Summary
(in year-of-expenditure \$)



The plan invests those discretionary funds via six key investment strategies, as shown in Figure 2 and presented in greater detail in Chapter 4. (See Table 3 for a look at the “big-ticket” plan investments, overall.) The first two discretionary strategies merit special mention.

Maintain Our Existing System

Though its fund sources are many and varied, Plan Bay Area’s overriding priority in investing those funds can be stated quite simply: “Fix It First.” First and foremost, this plan should help to maintain the Bay Area’s transportation system in a state of good repair. Plan Bay Area’s focus on “fix it first” ensures that we maintain existing transportation assets, primarily concentrated in the region’s core, which reinforces the plan’s focused growth strategy.

“Top 10” Plan Bay Area Investments, by Project

(includes Committed and Discretionary funds)

Table 3 Ten Largest Plan Bay Area Investments

Rank	Project	Investment (YOE* Millions \$)
1	BART to Warm Springs, San Jose, and Santa Clara	\$8,341
2	MTC Regional Express Lane Network	\$6,657
3	Transbay Transit Center/Caltrain Downtown Extension (Phases 1 and 2)	\$4,185
4	Integrated Freeway Performance Initiative (FPI)	\$2,259
5	Presidio Parkway/ Doyle Drive US 101 seismic replacement	\$2,053
6	Caltrain Electrification and Service Frequency Improvements	\$1,718
7	SF MUNI Central Subway: King St to Chinatown	\$1,578
8	Valley Transportation Authority (VTA) Express Lane Network	\$1,458
9	San Jose International Airport Connector	\$753
10	Hunters Point and Candlestick Point: New Local Roads	\$722

* YOE = Year of Expenditure

In total, Plan Bay Area dedicates 87 percent of all available funding (committed and discretionary) to sustaining the existing transportation network. Given the age of many major assets — BART turned 40 last year and S. F. Muni turned 100 — this should come as no surprise.

Support Focused Growth — One Bay Area Grant Program

The OneBayArea Grant (OBAG) Program is a new funding approach that better integrates the region’s transportation funding program with SB 375 and the land use pattern outlined in Chapter 3. The OBAG program rewards jurisdictions that focus housing growth in Priority Development Areas (PDAs) through their planning and zoning policies, and actual production of housing units. The OBAG program allows flexibility to invest in a community’s transportation infrastructure by providing funding for Transportation for Livable Communities, bicycle and pedestrian improvements, local streets and roads preservation, and planning activities, while also providing specific funding opportunities for Safe Routes to Schools projects and Priority Conservation Areas.

Plan Bay Area Achieves Key Performance Targets

As described earlier, Plan Bay Area was developed within a framework of objective performance standards, both mandatory and voluntary or aspirational. As has been the case in past long-term transportation plans, no single strategy is able to achieve all the plan’s performance targets. An analysis of the 10 main targets and five sub-targets (for a total of 15 performance measures) clearly bears this out. Specifically, the draft plan meets or exceeds six targets, including the statutory greenhouse gas emissions and housing targets, narrowly misses three targets, falls well short of two targets and unfortunately moves in the wrong direction on four of the targets. In other words, the draft plan makes great progress on nine of 15 performance

measures, which represents a solid first effort. The region will need to focus future attention on conceptualizing breakthrough strategies to achieve the four targets where we are falling behind. For a more detailed discussion of the plan's performance as measured against each individual target, please see Chapter 5.

A Plan to Build On

Plan Bay Area is a work in progress that will be updated every four years to reflect new initiatives and priorities. It builds upon the work of previous initiatives, complements ongoing work and lays the groundwork for closer examination of certain critical issues that can further prepare the region to meet the future head-on. The plan highlights the relationship between transportation investments and land use planning, and represents the region's newest effort to position itself to make the most of what the future will bring.

No single level of government can be expected to address all the critical components needed to create a stronger and more resilient Bay Area. It will take a coordinated effort among diverse partners to promote regional economic development, adapt to climate change, prepare for natural disasters, get creative about how to provide affordable housing for all Bay Area residents, ensure clean and healthy air for our communities, and prepare for emerging technologies that will change the way people work and get around. Further steps will be needed to fully realize the Plan Bay Area vision and implement some of its forward-looking plans and policies. (See Chapter 6 for a discussion of some needed "next steps.")

But we have made a strong start. Look closely at Plan Bay Area, and you will see a plan that takes great strides toward:

Tackling problems that cross boundaries and require regional solutions

Housing, air quality, traffic, jobs, economic development, open space preservation — the list is a long one.

Embodying local visions

Priority Development Areas were recommended by local governments, and land use and transportation strategies are linked to local input and priorities; different kinds of investments and development are envisioned for different parts of the region.

Helping to ensure a vibrant and healthy region for our children and grandchildren

Cleaner air, fewer greenhouse gas emissions, more housing options, improved infrastructure, better access to jobs, and access to open space and recreation — these are the building blocks of a better future.

Making Bay Area businesses more competitive

A well-constructed, sustainable regional plan can help us attract private sector investment and compete for federal and state funding.

Providing a range of housing and transportation choices

A greater variety of multifamily and single family housing will be available in places with better transit access, and improved walking conditions and local services.

Stretching tax revenues through smart investments

By making the most of existing infrastructure, using a performance-based approach to transportation investments and coordinating the location of future housing and jobs with major transportation investments, we can get more bang for our buck in public expenditures.

Preserving open spaces, natural resources, agriculture and farmland

By developing in existing downtowns, main streets and neighborhoods, we don't need to develop on open spaces or in places that over-utilize our water supply, energy resources and road capacity.

Helping to create healthy communities

More people will be able to live in neighborhoods where they can walk to shops, transit and local parks because of the groundwork laid in this plan.

Plan Bay Area cannot guarantee these outcomes, of course, but we believe it can greatly boost the region's odds of achieving them. For surely we must work together as a region to promote sustainability, and to leave a better Bay Area for our children and grandchildren. By helping to harmonize local decision-making and regional goals, by better integrating transportation investment and land use planning, by more closely aligning our policies with our vision — in short, by creating a strategy for a sustainable region — Plan Bay Area gives us a chance to do that.



Korff Weisen

MTC and ABAG welcome your comments on this draft Plan Bay Area. An extensive outreach effort is planned during the spring of 2013 to provide ample opportunity for the region's residents to make their views known. Please see "What's Next for Plan Bay Area" at the end of this plan for details, or visit <http://onebayarea.org>

Draft Plan Bay Area

Strategy for a Sustainable Region

April 2013

Environmental Impact Report
Plan Bay Area
Draft
State Clearinghouse No. 2012062029



Association of
Bay Area
Governments



Metropolitan
Transportation
Commission

PLAN BAY AREA

DRAFT

ENVIRONMENTAL

IMPACT REPORT

STATE CLEARINGHOUSE NO. 2012062029

Prepared for

Metropolitan Transportation Commission and
Association of Bay Area Governments

by

DYETT & BHATIA

Urban and Regional Planners

In association with

Environmental Science Associates and AECOM

April 2013

Table of Contents

Glossary of Terms G-1

Executive Summary ES-1

MTC, ABAG, and Plan Bay Area.....ES-1

Introduction to the EIR.....ES-2

EIR Organization.....ES-3

Plan Bay Area Regional Setting.....ES-5

Plan Bay Area OverviewES-5

AlternativesES-7

Key EIR assumptionsES-8

Plan Impacts.....ES-9

Environmentally Superior Alternative.....ES-9

Areas of Known Controversy ES-11

Issues to be Resolved..... ES-12

Summary Table of Impacts and Mitigation Measures ES-12

Part One: Introduction and Study Approach

1.1 Introduction and Study Approach..... 1.1-1

MTC, ABAG, and Plan Bay Area.....1.1-1

Purpose of the EIR.....1.1-2

Notice of Preparation and Public Scoping.....1.1-2

EIR Scope.....1.1-4

EIR Organization.....1.1-7

EIR Approach1.1-9

Future Environmental Review..... 1.1-12

1.2	Overview of the Proposed Plan Bay Area	1.2-1
	Regional Setting	1.2-1
	Project Background.....	1.2-8
	Plan Development Process.....	1.2-15
	Description of Plan Bay Area: Regional Transportation Plan and Sustainable Community Strategy.....	1.2-21

Part Two: Settings, Impacts, and Mitigation Measures

2.0	Introduction and Study Approach	2.0-1
	Introduction	2.0-1
	General Methodology and Assumptions	2.0-1
	Types of Impacts	2.0-2
	Impact Significance.....	2.0-3
	Mitigation	2.0-3
2.1	Transportation	2.1-1
	Environmental Setting	2.1-1
	Impact Analysis.....	2.1-22
2.2	Air Quality	2.2-1
	Environmental Setting	2.2-1
	Impact Analysis.....	2.2-17
2.3	Land Use and Physical Development	2.3-1
	Environmental Setting	2.3-1
	Impact Analysis.....	2.3-31
2.4	Energy	2.4-1
	Environmental Setting	2.4-1
	Impact Analysis.....	2.4-16
2.5	Climate Change and Greenhouse Gases	2.5-1
	Environmental Setting	2.5-1
	Impact Analysis.....	2.5-41
	Adaptation Strategies	2.5-76

2.6	Noise	2.6-1
	Environmental Setting	2.6-1
	Impact Analysis.....	2.6-19
2.7	Geology and Seismicity	2.7-1
	Environmental Setting	2.7-1
	Impact Analysis.....	2.7-20
2.8	Water Resources	2.8-1
	Environmental Setting	2.8-1
	Impact Analysis.....	2.8-20
2.9	Biological Resources	2.9-1
	Environmental Setting	2.9-1
	Impact Analysis.....	2.9-52
2.10	Visual Resources	2.10-1
	Environmental Setting	2.10-2
	Impact Analysis.....	2.10-14
2.11	Cultural Resources	2.11-1
	Environmental Setting	2.11-1
	Impact Analysis.....	2.11-9
2.12	Public Utilities and Facilities	2.12-1
	Environmental Setting	2.12-1
	Impact Analysis.....	2.12-46
2.13	Hazards	2.13-1
	Environmental Setting	2.13-1
	Impact Analysis.....	2.13-26
2.14	Public Services and Recreation	2.14-1
	Environmental Setting	2.14-1
	Impact Analysis.....	11

Part Three: Alternative and CEQA-Required Conclusions

3.1 Alternatives to the Proposed Plan..... 3.1-1
Alternatives Screening3.1-2
Approach to Assessing Alternatives.....3.1-3
Alternatives Analyzed in this EIR3.1-4
Comparative Impact Analysis of Alternatives..... 3.1-19
Summary of All Alternatives.....3.1-120
Environmentally Superior Alternative3.1-146

3.2 CEQA Required Conclusions..... 3.2-21

4.1 Bibliography..... 4.1-1

4.2 EIR Preparers 4.2-12

Appendices

- Appendix A: Notice of Preparation
- Appendix B: Scoping Comments Received
- Appendix C: Transportation Projects in Each EIR Alternative
- Appendix D: Scoping Comments on Alternatives
- Appendix E: Air Quality Analysis Methodology
- Appendix F: Geology
- Appendix G: Water Resources
- Appendix H: Biological Resources Special Status Species Table H-1
- Appendix I: Hazards

List of Figures

Figure 1.2-1: Regional Location.....	1.2-3
Figure 1.2-2: Priority Development Areas and Priority Conservation Areas.....	1.2-27
Figure 1.2-3: Urbanized Land in 2010 and 2040.....	1.2-29
Figure 1.2-4: Regional Transit System Improvements.....	1.2-41
Figure 1.2-5: Local Transit Improvements.....	1.2-43
Figure 1.2-6: Road Pricing Improvements.....	1.2-45
Figure 1.2-7: Highway System Improvements.....	1.2-47
Figure 1.2-8: Major Transportation Projects in Alameda County.....	1.2-57
Figure 1.2-9: Major Transportation Projects in Contra Costa County.....	1.2-61
Figure 1.2-10: Major Transportation Projects in Mario and Sonoma Counties.....	1.2-65
Figure 1.2-11: Major Transportation Projects in Napa and Solano Counties.....	1.2-67
Figure 1.2-12: Major Transportation Projects in San Francisco and San Mateo Counties.....	1.2-73
Figure 1.2-13: Major Transportation Projects in Santa Clara County.....	1.2-75
Figure 1.2-14: Change in PDA Housing Density, 2010-2040, Alameda and Contra Costa.....	1.2-79
Figure 1.2-15: Change in PDA Housing Density, 2010-2040, Marin and Sonoma.....	1.2-81
Figure 1.2-16: Change in PDA Housing Density, 2010-2040, Solano and Napa.....	1.2-83
Figure 1.2-17: Change in PDA Housing Density, 2010-2040, San Francisco and San Mateo.....	1.2-85
Figure 1.2-18: Change in PDA Housing Density, 2010-2040, Santa Clara.....	1.2-87
Figure 1.2-19: Change in PDA Job Density, 2010-2040, Alameda and Contra Costa.....	1.2-89
Figure 1.2-20: Change in PDA Job Density, 2010-2040, Marin and Sonoma.....	1.2-91
Figure 1.2-21: Change in PDA Job Density, 2010-2040, Solano and Napa.....	1.2-93
Figure 1.2-22: Change in PDA Job Density, 2010-2040, San Francisco and San Mateo.....	1.2-95
Figure 1.2-23: Change in PDA Job Density, 2010-2040, Santa Clara.....	1.2-97
Figure 2.1-1: Major Road Facilities.....	2.1-3
Figure 2.1-2: Transit Lines & Areas Served by Transit.....	2.1-7
Figure 2.1-3: Bicycle Facilities.....	2.1-11
Figure 2.2-1: Air Basin Boundaries.....	2.2-15
Figure 2.2-2: Priority Development Areas and Transit Priority Projects Corridors.....	2.2-21
Figure 2.2-3: Communities of Concern and CARE.....	2.2-25
Figure 2.2-4: San Francisco Bay Area.....	2.2-43
Figure 2.2-5: Northern Alameda County.....	2.2-45
Figure 2.2-6: Eastern Alameda County.....	2.2-47
Figure 2.2-7: Southern Alameda County.....	2.2-49
Figure 2.2-8: Western Contra Costa County.....	2.2-51
Figure 2.2-9: Central Contra Costa County.....	2.2-53
Figure 2.2-10: Eastern Contra Costa County.....	2.2-55

Figure 2.2-11: Northern Marin County	2.2-57
Figure 2.2-12: Southern Marin County	2.2-59
Figure 2.2-13: Napa County.....	2.2-61
Figure 2.2-14: Northern Santa Clara County.....	2.2-63
Figure 2.2-15: Central Santa Clara County	2.2-65
Figure 2.2-16: Southern Santa Clara County	2.2-67
Figure 2.2-17: San Francisco County	2.2-69
Figure 2.2-18: Northern San Mateo County.....	2.2-71
Figure 2.2-19: Southern San Mateo County.....	2.2-73
Figure 2.2-20: Southern Solano County	2.2-75
Figure 2.2-21: Sonoma County.....	2.2-77
Figure 2.3-1: Urbanized Land and Open Space.....	2.3-3
Figure 2.3-2: Farmlands.....	2.3-9
Figure 2.3-3: Williamson Act Lands	2.3-13
Figure 2.3-4: Regional Parks and Open Space	2.3-17
Figure 2.3-5: Priority Development Areas.....	2.3-29
Figure 2.5-1: 2007 Bay Area Greenhouse Gas Emissions by Sector, as a Percent of Total Emissions	2.5-6
Figure 2.5-2: Bay Area Greenhouse Gas Emissions Trends by Major Source.....	2.5-6
Figure 2.5-3: 24-Inch Sea Level Rise at Mean Higher High Water	2.5-13
Figure 2.5-4: Levees and Non-Engineered Berms	2.5-17
Figure 2.5-5: Number of Days Exceeding the 8-Hour Ozone Standard and 99 Degree Weather.....	2.5-21
Figure 2.5-6: Comparative Inundation by Scenario.....	2.5-47
Figure 2.5-7: Per Capita Emissions Car and Light Duty Truck Emissions	2.5-58
Figure 2.5-8: Total Emissions by Sector and Linear Trajectory, Annual MTCO ₂ e	2.5-59
Figure 2.6-1: Decibel Scale and Common Noise Sources	2.6-3
Figure 2.6-2: Point Source Spreading with Distance	2.6-5
Figure 2.6-3: Line Source Spreading with Distance	2.6-6
Figure 2.6-4: Wind Effects on Noise Levels	2.6-7
Figure 2.6-5: Effects of Temperature Gradients on Noise	2.6-8
Figure 2.6-6: FTA Noise Impact Criteria.....	2.6-14
Figure 2.6-7: Typical Noise/Land Use Compatibility Criteria	2.6-18
Figure 2.7-1: Principal Active Faults in the San Francisco Bay Area	2.7-7
Figure 2.7-2: Liquefaction Hazards in San Francisco Bay Area.....	2.7-11
Figure 2.7-3: Landslide Hazards in the San Francisco Bay Area.....	2.7-15
Figure 2.8-1: Major Rivers, Creeks, and Other Water Bodies	2.8-5
Figure 2.8-2: Current TMDL Projects in San Francisco Bay Area	2.8-9
Figure 2.8-3: Flood Hazard Areas	2.8-11
Figure 2.9-1: CNDDDB Documented Sensitive Biological Resources: North Bay.....	2.9-17
Figure 2.9-2: CNDDDB Documented Sensitive Biological Resources: East Bay	2.9-19
Figure 2.9-3: CNDDDB Documented Sensitive Biological Resources: Peninsula	2.9-21
Figure 2.9-4: CNDDDB Documented Sensitive Biological Resources: South Bay	2.9-23
Figure 2.9-5: Critical Habitat: North Bay.....	2.9-27

Figure 2.9-6: Critical Habitat: East Bay	2.9-29
Figure 2.9-7: Critical Habitat: South Bay	2.9-31
Figure 2.9-8: Critical Habitat: Peninsula.....	2.9-33
Figure 2.9-9: Essential Connectivity Areas	2.9-37
Figure 2.10-1: Major Bay Area Scenic Resources.....	2.10-3
Figure 2.10-2: State Designated and Eligible Scenic Highways.....	2.10-11
Figure 2.10-3: Proposed Major Transportation Projects.....	2.10-19
Figure 2.12-1: Major Local Watersheds in the San Francisco Bay Hydrologic Region.....	2.10-3
Figure 2.12-2: Bay Area Water Use by Supply Source.....	2.12-9
Figure 2.12-3: Bay Area Groundwater Basins	2.12-11
Figure 2.12-4: Major Water Infrastructure Serving the Bay Area	2.12-17
Figure 2.12-5: Population and Water Demand Trends	2.12-21
Figure 2.12-6: Wastewater Treatment Plants in the Bay Area.....	2.12-31
Figure 2.13-1: Naturally Occurring Asbestos and Ultramafic Rocks	2.13-7
Figure 2.13-2: Airports.....	2.13-11
Figure 2.13-3: Fire Hazards	2.13-15
Figure 3.1-1: Change in Per Capita Car and Light Duty Truck CO ₂ Emissions, by Alternative	3.1-63
Figure 3.1-2: Total Annual Regional GHG Emissions (MTCO ₂ e), by Alternative.....	3.1-64

This page intentionally left blank.

List of Tables

Table ES-1:	Total Projected Growth for the Bay Area, 2010-2040	ES-6
Table ES-2:	Summary of Impacts and Mitigation.....	ES-13
Table 1.1-1:	Requirements for CEQA Streamlining Related to an SCS.....	1.1-14
Table 1.2-1:	Projected Regional Growth by 2040	1.2-6
Table 1.2-2:	Year 2040 Performance Targets for Plan Bay Area	1.2-22
Table 1.2-3:	Housing Growth by County	1.2-32
Table 1.2-4:	County Proportion of Regional Housing	1.2-32
Table 1.2-5:	Job Growth by County	1.2-33
Table 1.2-6:	Jobs-Household Ratios by County.....	1.2-34
Table 1.2-7:	Household Growth in PDAs.....	1.2-34
Table 1.2-8:	Job Growth in PDAs	1.2-36
Table 1.2-9:	Major Transportation Investments in the Bay Area.....	1.2-38
Table 1.2-10:	Transportation Investments of Plan Bay Area vs. RTP 2035	1.2-50
Table 1.2-11:	Major Transportation Investments for Alameda County	1.2-54
Table 1.2-12:	Major Transportation Investments for Contra Costa County.....	1.2-59
Table 1.2-13:	Major Transportation Investments for Marin and Sonoma Counties	1.2-63
Table 1.2-14:	Major Transportation Investments for Napa and Solano Counties	1.2-64
Table 1.2-15:	Major Transportation Investments for San Francisco and San mateo Counties	1.2-69
Table 1.2-16:	Major Transportation Investments for Santa Clara County.....	1.2-70
Table 2.1-1:	Major Limited-Access Highways in the Bay Area	2.1-2
Table 2.1-2:	Major Public Transit Operators in the Bay Area.....	2.1-5
Table 2.1-3:	Bay Area Travel Behavior, 2010.....	2.1-10
Table 2.1-4:	Typical Weekday Daily Person Trips by Purpose, 2010.....	2.1-14
Table 2.1-5:	Average One-Way Commute Distance (in Miles) by County, 2010.....	2.1-14
Table 2.1-6:	Bay Area Resident Workers Categorized by Means of Transportation to Work, 1990-2010.....	2.1-15
Table 2.1-7:	Bay Area Resident Commute Mode Shares by County, 2010	2.1-16
Table 2.1-8:	Average Travel Time to Work, 1990 - 2010	2.1-16
Table 2.1-9:	Bay Area Resident Workers Commute Patterns by County, 1990 - 2007	2.1-18
Table 2.1-10:	Bay area Demographic Forecasts (2010-2040)	2.1-25
Table 2.1-11:	Transportation System Capacity (2010-2040).....	2.1-27
Table 2.1-12:	Bay Area Travel Behavior, 2010-2040.....	2.1-28
Table 2.1-13:	Typical Weekday Daily Person Trips, by Mode.....	2.1-29
Table 2.1-14:	Per-Trip Commute Travel Time, by Mode.....	2.1-31
Table 2.1-15:	Per-Trip Non-Commute Travel Time, by Mode.....	2.1-32
Table 2.1-16:	Per-Capita Daily Vehicle Miles of Travel by Level of Service (2010-2040).....	2.1-33

Plan Bay Area 2040
Public Review Draft Environmental Impact Report

Table 2.1-17:	Daily Vehicle Miles of Travel Per Capita (2010-2040).....	2.1-35
Table 2.1-18:	Utilization of Public Transit Systems, by Mode (2010-2040)	2.1-37
Table 2.2-1:	Bay Area Ambient Air Quality Standards and Attainment Status as of 2012	2.2-4
Table 2.2-2:	Ten-Year Bay Area Air Quality Summary (2002-2011)	2.2-6
Table 2.2-3:	Days Exceeding the California 1-Hour Ozone Standard (1998-2010)	2.2-7
Table 2.2-4:	Days Exceeding the National 8-Hour Ozone Standard (1998-2010)	2.2-8
Table 2.2-5:	Travel Data	2.2-18
Table 2.2-6:	Proposed Plan Investments and Policies that Support Implementation of 2010 CAP Control Measures.....	2.2-29
Table 2.2-7:	Emission Estimates for Criteria Pollutants using EMFAC2011 Emission Rates (tons per day)	2.2-36
Table 2.2-8:	Emission Estimates for Criteria Pollutants using EMFAC2011 Emission Rates (tons per day)	2.2-37
Table 2.2-9:	Emission Estimates for Toxic Air Contaminants Pollutants (kilograms per day)	2.2-38
Table 2.2-10:	Distance Recommendation from Sensitive Receptors.....	2.2-80
Table 2.2-11:	Percent Change in On-Road Mobile Source Exhaust Emissions, Years 2010 - 2040	2.2-84
Table 2.2-12:	Percent Change in On-Road Mobile Source Total PM Emissions, Years 2010–2040.....	2.2-85
Table 2.3-1:	2010 Employment, Housing, and Population, by County.....	2.3-2
Table 2.3-2:	Net Housing Supply and Demand by Building Type, 2010 – 2040	2.3-5
Table 2.3-3:	Bay Area Agricultural Lands, 2010	2.3-7
Table 2.3-4:	Bay Area Agricultural Lands, 1954 and 2007	2.3-8
Table 2.3-5:	Williamson Act Contracts in the Bay Area, 2006.....	2.3-12
Table 2.3-6:	Bay Area Parks and Open Space	2.3-15
Table 2.3-7:	Household Density by Priority Development ARea	2.3-36
Table 2.3-8:	Employment Density by Priority Development Area	2.3-37
Table 2.3-9:	Types of Projects Potentially Disrupting Existing Land Use	2.3-38
Table 2.3-10:	Priority Development Area and BCDC Priority Use Area Acres of Overlap	2.3-43
Table 2.3-11:	Farmland Acres Potentially Affected by Proposed Development, by County and Type.....	2.3-45
Table 2.3-12:	Williamson Act Acres Potentially Affected by Proposed Development, by County	2.3-46
Table 2.3-13:	Protected Open SSpace Acres Potentially Affected by Proposed Development, by County	2.3-47
Table 2.3-14:	Bay Area Urban Growth Boundaries and County-wide Land Use Measures	2.3-48
Table 2.3-15:	Farmland Acres Potentially Affected by Proposed Transportation Projects, by County and Type.....	2.3-49
Table 2.3-16:	Williamson Act Acres Potentially Affected by Proposed Transportation Projects, by County	2.3-50
Table 2.3-17:	Protected Open SSpace Acres Potentially Affected by Proposed Transportation Projects, by County	2.3-51
Table 2.3-18:	Forest and Timberland Acres Potentially Affected by Proposed Development, by County	2.3-54
Table 2.4-1:	Electricity and Natural Gas Consumption in the San Francisco Bay Area, 2010	2.4-5

Table 2.4-2: Gasoline and Diesel Consumption in the San Francisco Bay Area, 2010 and 2011 (1,000 gallons)..... 2.4-7

Table 2.4-3: Energy Factors of Transit Service..... 2.4-8

Table 2.4-4: Direct Land Use Energy Consumption Factors..... 2.4-17

Table 2.4-5: InDirect Land Use Energy Consumption Factors 2.4-18

Table 2.4-6: InDirect Transportation Project Energy Consumption Factors 2.4-18

Table 2.4-7: Annual Direct Land use Energy Use in the Bay Area..... 2.4-20

Table 2.4-8: Estimated Indirect Land Use Energy Consumption (in BnBTUs)..... 2.4-21

Table 2.4-9: Daily Direct Transportation Energy Use in the Bay Area 2.4-22

Table 2.4-10: Estimated Daily Indirect Transportation Energy Consumption (In Billion Btus)..... 2.4-23

Table 2.4-11: Daily Per Capita Energy Use (BTUS per PERSON) 2.4-23

Table 2.5-1: 2007 Bay Area CO₂e Emissions by Pollutant 2.5-5

Table 2.5-2: CO-CAT (2010) Sea Level Rise Projections using 2000 as the Baseline 2.5-10

Table 2.5-3: NRC (2012) Regional Sea Level Rise Projections near San Francisco, CA 2.5-10

Table 2.5-4: Bay Area Cities with Completed GHG Emissions Inventories or CLimate Action Plans 2.5-38

Table 2.5-5: Plan Bay Area Climate Policy Initiatives and Reductions..... 2.5-43

Table 2.5-6: ARB Scoping Plan Reductions for Electricity and Natural Gas Sectors 2.5-45

Table 2.5-7: Total and Per Capita Passenger Vehicle and Light Duty Truck CO₂ Emissions..... 2.5-50

Table 2.5-8: Existng and forecasted Annual Land Use GHG Emissions (MTCO₂e)..... 2.5-53

Table 2.5-9: Exisitng and forecasted Annual TransPortation GHG Emissions (MTCO₂e) 2.5-55

Table 2.5-10: Total Regional Annual GHG Emissions 2.5-56

Table 2.5-11: Proposed Transportation Projects Within Midcentury Sea Level Rise Inundation Zone 2.5-62

Table 2.5-12: Proposed Transportation Projects Within Midcentury Low-Lying Hydraulically Disconnected Zone 2.5-65

Table 2.5-13: Total Population Within PDA and Midcentury Sea Level Rise Inundation Zone 2.5-69

Table 2.5-14: Total Population Within TPP and Midcentury Sea Level Rise Inundation Zone 2.5-70

Table 2.5-15: Total Population Within County and Midcentury Sea Level Rise Inundation Zone 2.5-70

Table 2.5-16: Total Employment Within PDA and Midcentury Sea Level Rise Inundation Zone 2.5-73

Table 2.5-17: Total Employment Within TPP and Midcentury Sea Level Rise Inundation Zone 2.5-73

Table 2.5-18: Total Employment Within County and Midcentury Sea Level Rise Inundation Zone .. 2.5-74

Table 2.5-19: Total Households Within PDA and Midcentury Sea Level Rise Inundation Zone 2.5-74

Table 2.5-20: Total Households Within TPP and Midcentury Sea Level Rise Inundation Zone 2.5-75

Table 2.5-21: Total Households Within County and Midcentury Sea Level Rise Inundation Zone 2.5-75

Table 2.5-22: Asset Types and Shoreline Types of Proposed Transportation Projects Within Sea Level Rise Inundation Zone 2.5-83

Table 2.5-23: Asset Types and Shoreline Types of Proposed Transportation Projects Within Low-Lying Hydraulically Disconnected Zone 2.5-84

Table 2.6-1: Approximate Relationship Between Increases in Environmental Noise Level and Human Perception..... 2.6-4

Table 2.6-2: Typical Noise Levels From Demolition/ Construction Equipment Operations..... 2.6-11

Table 2.6-3: Summary of FHWA Noise Abatement Criteria 2.6-13

Table 2.6-4: FTA Ground-Borne Vibration (GVB) Impact Criteria for General Assessment 2.6-15

Plan Bay Area 2040
Public Review Draft Environmental Impact Report

Table 2.6-5:	Summary of FTA Construction Noise Criteria (Guidelines)	2.6-16
Table 2.6-6:	Noise Levels By Roadway Type (Roadway Miles)	2.6-29
Table 2.7-1:	Active Faults in The Bay Area	2.7-5
Table 2.7-2:	Modified Mercalli Intensity Scale.....	2.7-9
Table 2.7-3:	Priority Development Areas (PDAs) Located in Fault Rupture Zones.....	2.7-23
Table 2.8-1:	Average Monthly Precipitation, Selected Bay Area Sites	2.8-2
Table 2.8-2:	Flood Hazard Zone Classification	2.8-13
Table 2.9-1:	Critical Habitat in the Bay Area	2.9-25
Table 2.10-1:	California State Scenic Highway System Officially Designated (OD) and Eligible (E) Routes in the Bay Area.....	2.10-9
Table 2.10-3:	Urbanized Land By County.....	2.10-17
Table 2.10-4:	Types of Projects Potentially Disrupting Visual Resources	2.10-21
Table 2.10-5:	Household Density by Priority Development Area	2.10-26
Table 2.11-1:	Recorded Archaeological and Historical Sites in the Bay Area.....	2.11-4
Table 2.11-2:	Urbanized Land By County.....	2.11-14
Table 2.12-1:	Watersheds of the San Francisco Bay Hydrologic Region.....	2.12-2
Table 2.12-2:	Projected Normal Year Supply and Demand (AF/Year)	2.12-20
Table 2.12-3:	Projected Service Area Population of Major Bay Area Water Agencies.....	2.12-22
Table 2.12-4:	Year of Projected Water Shortages (Single Dry Year)	2.12-23
Table 2.12-5:	Flow and Capacity of Wastewater Treatment Facilities in the Region	2.12-24
Table 2.12-6:	Active Bay Area Landfills	2.12-35
Table 2.12-7:	Active Bay Area Transfer/Processing Facilities.....	2.12-37
Table 2.12-8:	Projected Flow vs. Existing Capacity of Wastewater Treatment at a County Level (dry weather, mgD).....	2.12-51
Table 2.13-1:	Description of regulatory agency Databases	2.13-4
Table 2.13-2:	List of Public Use Airports and Military Airfields in the San Francisco Bay Area.....	2.13-10
Table 2.14-1:	Bay Area Public Schools and Enrollment by County, 2010-2011.....	2.14-2
Table 2.14-2:	Bay Area Parks and Open Space	2.14-5
Table 2.14-3:	Bay Area Parks and Open Space and Acreage Per 1,000 Residents, by County	2.14-15
Table 3.1-1:	Policy Measure Comparison.....	3.1-8
Table 3.1-2:	Bay area Demographic Forecasts (2010-2040)	3.1-11
Table 3.1-3:	Year 2040 Households by County	3.1-14
Table 3.1-4:	Year 2040 Jobs by County.....	3.1-14
Table 3.1-5:	Total Households and Household Growth By Share in PDAs	3.1-15
Table 3.1-6:	Total Jobs And Job Growth By Share in PDAs.....	3.1-16
Table 3.1-7:	Transportation System Capacity (2010-2040).....	3.1-18
Table 3.1-8:	Bay Area Travel Behavior, 2010-2040.....	3.1-24
Table 3.1-9:	Per-Trip Commute Travel Time, by Mode.....	3.1-26
Table 3.1-10:	Per-Trip Non-Commute Travel Time, by Mode.....	3.1-27
Table 3.1-11:	Per-Capita Daily Vehicle Miles Of Travel by Level Of Service (2010-2040)	3.1-28
Table 3.1-12:	Daily Vehicle Miles of Travel Per Capita (2010-2040).....	3.1-29
Table 3.1-13:	Percent Utilization of Public Transit Systems, by Technology (2010-2040).....	3.1-30
Table 3.1-14:	Travel Data	3.1-38

Table 3.1-15: Emission Estimates for Criteria Pollutants using EMFAC2011
Emission Rates (tons per day)3.1-39

Table 3.1-16: Emission Estimates for Toxic Air Contaminants Pollutants (kilograms per day)3.1-40

Table 3.1-17: Exhaust Only PM_{2.5} with Road-Dust Percent Change 2010 - 20403.1-41

Table 3.1-18: Total PM_{2.5} with Road Dust Percent Change 2010 - 2040.....3.1-42

Table 3.1-19: Exhaust Diesel PM Percent Change 2010 - 2040.....3.1-43

Table 3.1-20: Exhaust Benzene Percent Change 2010 - 20403.1-44

Table 3.1-21: Exhaust 1, 3 Butadiene Percent Change 2010 - 20403.1-45

Table 3.1-22: VMT Percent Change 2010 - 20403.1-46

Table 3.1-23: Potential Farmland Conversion in acres, by type and Alternative3.1-50

Table 3.1-24: Williamson Act Acres Potentially Affected in acres, by Alternative3.1-51

Table 3.1-25: Potential Open Space Conversion in acres, by Alternative3.1-52

Table 3.1-26: Potential Forest and Timberland Conversion in Acres, by Alternative3.1-53

Table 3.1-27: Total Energy Use Per Capita in the Bay Area by Alternative.....3.1-56

Table 3.1-28: Total and Per Capita Passenger Vehicle and Light Duty Truck CO₂
Emissions, by Alternative3.1-59

Table 3.1-29: Comparative Annual Land Use GHG Emissions (MTCO₂e)3.1-61

Table 3.1-30: Proposed Transportation Projects within Mid-Century Sea level Rise
Inundation Zone3.1-65

Table 3.1-31: Proposed Transportation Projects within Mid-Century Low-Lying zone3.1-66

Table 3.1-33: Residents Within TPPs and Mid-Century Sea level Rise Inundation Zone3.1-69

Table 3.1-34: Residents Within Counties and Mid-Century Sea Level Rise Inundation Zone3.1-70

Table 3.1-35: Residents Within PDAs and Mid-Century Low-Lying Zone3.1-71

Table 3.1-36: Residents Within TPPs and Mid-Century Low-Lying Zone3.1-71

Table 3.1-37: Residents Within Counties and Mid-Century Low-Lying Zone3.1-72

Table 3.1-38: Employment Within PDAs and Mid-Century Sea level Rise Inundation Zone3.1-73

Table 3.1-39: Employment Within TPPs and Mid-Century Sea level Rise Inundation Zone3.1-74

Table 3.1-40: Employment Within Counties and Mid-Century Sea level Rise Inundation Zone3.1-75

Table 3.1-42: Employment Within TPPs and Mid-Century Low-Lying Zone3.1-76

Table 3.1-43: Employment Within Counties and Mid-Century Low-Lying Zone.....3.1-77

Table 3.1-44: Households Within PDAs and Mid-Century Sea level Rise Inundation Zone3.1-78

Table 3.1-45: Households Within TPPs and Mid-Century Sea level Rise Inundation Zone3.1-78

Table 3.1-46: Households Within counties and Mid-Century Sea level Rise Inundation Zone.....3.1-79

Table 3.1-47: Households Within PDAs and Mid-Century Low-Lying Zone3.1-80

Table 3.1-48: Households Within TPPs and Mid-Century Low-Lying Zone3.1-80

Table 3.1-49: Households Within Counties and Mid-Century Low-Lying Zone.....3.1-81

Table 3.1-50: Roadway Directional Miles > 66 dBA NAC Level, and Total Directional Miles,
by Roadway Type and County.....3.1-88

Table 3.1-51: Transportation Projects, by Alternative3.1-101

Table 3.1-52: Alternative 1 Aggregate Projected Flow vs. Existing Capacity of Wastewater
Treatment (dry weather, mgD)3.1-108

Table 3.1-53: Alternative 3 Aggregate Projected Flow vs. Existing Capacity of Wastewater
Treatment (dry weather, mgD)3.1-110

Plan Bay Area 2040
 Public Review Draft Environmental Impact Report

Table 3.1-54: Alternative 4 Aggregate Projected Flow vs. Existing Capacity of Wastewater Treatment (dry weather, mgD)	3.1-112
Table 3.1-55: Alternative 5 Aggregate Projected Flow vs. Existing Capacity of Wastewater Treatment (dry weather, mgD)	3.1-114
Table 3.1-56: Summary of Alternatives Comparison to the Proposed Plan	3.1-121
Table 3.2-1: Total Projected Growth for the Bay Area, 1990-2040	3.2-5
Table 3.2-2: Forecasted Growth by Age Group as a Percent of the Total (2010-2040)	3.2-6
Table 3.2-3: 2010 Median Income in the Bay Area By County	3.2-6
Table 3.2-4: Auto Ownership Per Household in the Bay Area, 2000 and 2010	3.2-7
Table 3.2-5: 2010 Employment by County – Net Importers/Exporters of Workers and Jobs/Housing Balance	3.2-8
Table 3.2-6: 2010 & 2040 Employed Residents and Jobs by County and Net Importers/Exporters of Workers	3.2-12
Table 3.2-7: Urbanized Land By County	3.2-13
Table 3.2-8: 2010 & 2040 Job Growth in Counties and PDA's	3.2-15
Table 3.2-9: 2010 & 2040 Employed Resident Growth in Counties and PDA's	3.2-16

Glossary of Terms

AB 32	Assembly Bill 32 – Law that requires that the State’s global warming emissions be reduced to 1990 levels by 2020
ABAG	Association of Bay Area Governments – The regional agency responsible for assigning housing allocations and performing demographic analysis
BAAQMD	Bay Area Air Quality Management District
Bay Area	The nine-county region adjacent to the San Francisco Bay and the area covered by Plan Bay Area and this EIR
BCDC	Bay Conservation and Development Commission
BMP	Best Management Practice
BRT	Bus Rapid Transit
Caltrans	California Department of Transportation
CARB	California Air Resources Board – State agency responsible for attaining and maintaining healthy air quality through setting and enforcing emissions standards, conducting research, monitoring air quality, providing education and outreach, and overseeing/assisting local air quality districts
CCR	California Code of Regulations
CEQA	California Environmental Quality Act – State law requiring review of physical environmental impacts potentially caused by plans and projects
CFR	Code of Federal Regulations
CMAAs	Congestion Management Agencies - County-level transportation agencies tasked with managing and reducing traffic congestion on major regional roadways
GHG	Greenhouse Gases – Components of the atmosphere that contribute to the greenhouse effect. The principal greenhouse gases that enter the atmosphere because of human activities are carbon dioxide, methane, nitrous oxide, and fluorinated gases
GIS	Geographic Information System – Mapping software that links spatial information to quantitative and qualitative attributes
HOT	High Occupancy Toll – An HOV lane that single-occupant drivers can pay to drive in
HOV	High Occupancy Vehicle – A lane restricted to vehicles with a certain number of occupants to encourage carpooling
JHCS	Jobs-Housing Connection Strategy - The land use development strategy developed by ABAG that is the preferred approach employed in the proposed Plan
MTC	Metropolitan Transportation Commission, the transportation agency for the Bay Area
NOP	Notice of Preparation

Plan Bay Area 2040 Draft Environmental Impact Report
Public Review Draft Environmental Report

NPDES	National Pollutant Discharge Elimination System - A federal program that regulates the amount and quality of discharge into bodies of water
OBAG	OneBayArea Grant – Program of grants distributed to local jurisdictions by MTC and ABAG to pay for planning and infrastructure investments in accordance with Plan Bay Area
Plan Bay Area	The name given to the SCS developed by MTC and ABAG. It also serves as the Bay Area’s Regional Transportation Plan through the year 2040.
PM	Particulate Matter – A mixture of solid particles and liquid droplets found in the air
Proposed Plan	The preferred alternative (#2) of Plan Bay Area evaluated in this EIR
RHNA	Regional Housing Needs Allocation – Quantifies the need for housing within each jurisdiction of a region based on population growth projections. ABAG assigns these targets within the Bay Area. Communities then address this need through the process of completing the housing elements of their general plans
PCA	Priority Conservation Area - Regionally significant open spaces for which there exists broad consensus for long-term protection
PDA	Priority Development Area - Existing neighborhood served by transit and nominated by its local jurisdiction as a location to focus future development
RTP	Regional Transportation Plan – Federally required 20-year plan prepared by metropolitan planning organizations and updated every four or five years. Includes projections of population growth and travel demand, along with a specific list of proposed projects to be funded.
RWQCB	Regional Water Quality Control Board
TAC	Toxic Air Contaminant – Air pollutants that may cause or contribute to an increase in mortality or in serious illness, or that may pose a present or potential hazard to human health
TIS	Transportation Investment Strategy – The transportation strategy developed by MTC that is the preferred approach employed in the proposed Plan
TPP	Transit Priority Project – A land use development that, based on its type and location, may be eligible for CEQA streamlining under SB 375
SB 375	Law that requires CARB to set regional targets for per-capita GHG emission reduction targets and mandates the SCS
SCS	Sustainable Communities Strategy - An integrated regional transportation and land use plan that must hit State mandated GHG emissions reductions targets while also accommodating anticipated population growth
SWRCB	State Water Resources Control Board
VMT	Vehicle Miles Traveled – A measurement of the total miles traveled by all vehicles in the area for a specified time period

Executive Summary

This program Environmental Impact Report (EIR) has been prepared on behalf of the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) in accordance with the California Environmental Quality Act (CEQA). This EIR analyzes the potential significant impacts of the adoption and implementation of the proposed Plan Bay Area (proposed Plan), which is the update to the 2009 Regional Transportation Plan (RTP) and the new Sustainable Communities Strategy (SCS) for the San Francisco Bay Area.

MTC, ABAG, and Plan Bay Area

MTC is the transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area (which includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties). Created by the State Legislature in 1970, MTC functions as both the regional transportation planning agency (RTPA)—a state designation—and for federal purposes, as the region’s metropolitan planning organization (MPO).

As required by State legislation (Government Code Section 65080 et seq.) and by federal regulation (Title 23 USC Section 134), MTC is responsible for preparing the RTP for the San Francisco Bay Area Region. An RTP is a long-range plan that identifies the strategies and investments to maintain, manage, and improve the region’s ground transportation network. In 2009, MTC adopted its most recent RTP, known as the Transportation 2035 Plan for the San Francisco Bay Area. Development and environmental analysis of regional airport and seaport plans occur in separate processes.

ABAG is a joint powers agency formed in 1961 pursuant to California Government Code §§ 6500, et seq., and is the council of governments (COG) for the San Francisco Bay Area. ABAG conducts regional population and employment projections and the regional housing needs allocation (RHNA) processes (Government Code Section 65584 et seq.). Plan Bay Area is a joint effort led by MTC and ABAG and completed in partnership with the Bay Area’s other two regional government agencies, the Bay Area Air Quality Management District (BAAQMD), and the Bay Conservation and Development Commission (BCDC). It meets the requirements of the Sustainable Communities and Climate Protection Act of 2008, Senate Bill 375 (SB 375; Steinberg, 2008), which requires California’s 18 metropolitan planning organizations to develop an SCS as a new element of their federally mandated RTP. The SCS demonstrates how the region will meet its greenhouse gas (GHG) reduction targets established by the California Air Resources Board (ARB) through integrated land use, housing and transportation planning, a planning effort requiring the authority and powers vested in both MTC and ABAG.

Plan Bay Area, which covers the period through 2040, is the first Bay Area RTP that is subject to the requirements of SB 375. SB 375 requires that the SCS be integrated into the MPO’s RTP and once

adopted will be reviewed by ARB to determine whether it would, if implemented, achieve the GHG emission reduction target for its region. If the combination of measures in the SCS will not meet the region's target, the MPO must then prepare an alternative planning strategy (APS) that will do so.

Plan Bay Area is the region's first integrated long-range land use and transportation plan. Plan Bay Area calls for focused housing and job growth around high-quality transit corridors, particularly within areas identified by local jurisdictions as Priority Development Areas (PDAs). This land use strategy is intended to enhance mobility and economic growth by linking housing/jobs with transit, thus offering a more efficient land use pattern around transit and a greater return on existing and planned transit investments. The proposed Plan specifies the strategies and investments to maintain, manage, and improve the region's transportation network – which includes bicycle and pedestrian facilities, local streets and roads, public transit systems, and highways. The Plan proposes a set of transportation projects and programs that will be implemented with reasonably anticipated revenue available for the planning period. The proposed Plan must be updated every four years, ensuring a constantly evolving plan through regular updates throughout the planning period.

Introduction to the EIR

PURPOSE

This environmental assessment of the proposed Plan Bay Area—which may also be referred to as the “proposed Plan” throughout this document—has been prepared in compliance with CEQA and the CEQA Guidelines. It is designed to:

- Analyze the potential environmental effects of the adoption and implementation of the proposed Plan;
- Inform decision-makers, responsible and trustee agencies, and members of the public as to the range of the environmental impacts of the proposed Plan;
- Recommend a set of feasible measures to mitigate any significant adverse impacts; and
- Analyze a range of reasonable alternatives to the proposed Plan.

The EIR process also provides an opportunity to identify environmental benefits of the proposed Plan that might balance some potentially significant adverse environmental impacts. The final EIR will include a Mitigation Monitoring Program that identifies who will be responsible for implementing the measures.

As the joint lead agencies for preparing this EIR, MTC and ABAG will rely on the EIR analysis of potential environmental effects in their review of the proposed Plan prior to taking action on Plan Bay Area.

SCOPE

This is a program EIR, defined in Section 15168 of the CEQA Guidelines as: “[An EIR addressing a] series of actions that can be characterized as one large project and are related either: (1) Geographically; (2) As logical parts in the chain of contemplated actions; (3) In connection with the issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or (4) As

individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental impacts which can be mitigated in similar ways.”

Program EIRs can be used as the basic, general environmental assessment for an overall program of projects developed over a multi- year planning horizon. A program EIR has several advantages. For example, it provides a basic reference document to avoid unnecessary repetition of facts or analysis in subsequent project-specific assessments. It also allows the lead agency to consider the broad, regional impacts of a program of actions before its adoption and eliminates redundant or contradictory approaches to the consideration of regional and cumulative impacts.

As a programmatic document, this EIR presents a region-wide assessment of the potential impacts of the proposed Plan Bay Area. It focuses on the entire set of projects and programs contained in the proposed Plan. Individual transportation and development project impacts are not addressed in detail, although the impacts of some possible projects are discussed as appropriate; rather the focus of this EIR is to address the impacts of a program of projects, which, individually or in the aggregate, may be regionally significant. However, it does not evaluate subcomponents of the proposed Plan nor does it assess project-specific impacts of individual projects. For example, the general physical impacts of major regional transportation expansion projects are addressed, while potential impacts on specific wetlands or a specific species habitat by an individual interchange reconstruction project is not discussed, unless information currently exists or it can be surmised that the effect would be large or otherwise regionally significant. This approach does not relieve local jurisdictions of the responsibility for evaluating project-specific, locally significant impacts. All impacts of individual projects will be evaluated in future environmental review, as relevant, by the appropriate implementing agency as required under CEQA and/or NEPA prior to each project being considered for approval, as applicable.

This EIR evaluates potentially significant environmental impacts, and cumulative impacts, and includes mitigation measures to offset potentially significant effects. This EIR provides the basis for subsequent tiered CEQA documents for project-specific or site-specific environmental reviews that will be conducted by implementing agencies as land use and transportation projects in the proposed Plan are more clearly defined and more detailed studies prepared. Specific analysis of localized impacts in the vicinity of individual projects is not included in this program level EIR.

EIR Organization

The EIR is organized into four parts, outlined below. This Executive Summary outlines the proposed Plan and alternatives and includes a review of the potentially significant adverse regional environmental impacts of the proposed Plan Bay Area and the measures recommended to mitigate those impacts. The executive summary also indicates whether or not those measures mitigate the significant impacts to a less than significant level. The executive summary also identifies the environmentally superior alternative among the alternatives analyzed.

PART ONE: INTRODUCTION AND PROJECT DESCRIPTION

Part One includes two chapters. Chapter 1.1 describes the relationship between the proposed Plan Bay Area and the EIR, the organization of the EIR, and the basic legal requirements of a program level EIR. It discusses the level of analysis and the alternatives considered as well as how this EIR is related to other

environmental documents and the EIR's intended uses. Chapter 1.2 introduces the purpose and objectives of the proposed Plan Bay Area and summarizes specific information to describe the proposed Plan and complete the EIR analysis. This includes a description of the existing regional setting, an outline of the Bay Area's projected population and employment growth rates and proposed development patterns through the 2040 planning horizon year, and all proposed transportation projects and programs. State and federal planning regulations guiding the development of the RTP and SCS are also described.

PART TWO: SETTING, IMPACTS, AND MITIGATION MEASURES

Part Two describes the existing physical and regulatory settings for each of the environmental issue areas analyzed in the EIR, the potential impacts of the proposed Plan on these environmental issue areas, and measures to mitigate the potential impacts identified. Each issue area is analyzed in a separate chapter. Each chapter is organized as follows:

- Physical Setting;
- Regulatory Setting;
- Impact Significance Criteria;
- Method of Analysis;
- Summary of Impacts; and
- Impacts and Mitigation Measures.

PART THREE: ALTERNATIVES AND CEQA REQUIRED CONCLUSIONS

Part Three includes a description of the alternatives to the proposed Plan and an assessment of their potential to achieve the objectives of the proposed Plan while reducing potentially significant adverse regional environmental impacts. Part Three also includes a comparison summary table of regional environmental impacts associated with the alternatives. As required by CEQA, an environmentally superior alternative is identified. Finally, Part Three includes an assessment of the impacts of the proposed Plan and alternatives in several subject areas required by CEQA, including:

- Significant irreversible environmental changes;
- Significant unavoidable impacts;
- Growth-inducing impacts;
- Cumulative impacts; and
- Impacts found to be not significant.

PART FOUR: BIBLIOGRAPHY AND APPENDICES

Part Four includes a bibliography and the EIR appendices. Appendix A includes the Notice of Preparation (NOP) of this EIR and Appendix B provides reference to the comments received on the NOP and at the scoping meetings (a full set of comments can be found on the project website, www.onebayarea.org). Appendix C includes detailed lists of the transportation projects included in the proposed Plan and the alternatives studied in the EIR. Appendix D summarizes scoping comments received on the alternatives. Appendix E outlines the Air Quality analysis methodology and mitigation

measure effectiveness. Appendices F through I include detailed supporting data on impact analyses for geology, water, biology and hazards, respectively.

Plan Bay Area Regional Setting

The Bay Area region consists of nine counties: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma. In a ranking of Combined Statistical Areas (CSAs), the San José-San Francisco-Oakland CSA population was the sixth largest in the nation in 2010, behind New York-Newark-Bridgeport, Los Angeles-Long Beach-Riverside, Chicago-Naperville-Michigan City, Washington-Baltimore-Northern Virginia, and Boston-Worcester-Manchester CSAs.¹ In 2010, the San Francisco Bay Area population was nearly 7.2 million according to the 2010 Census. According MTC, as of 2010 only about 18 percent of the region's approximately 4.4 million acres of land has been developed. The Bay Area transportation network includes interstate and state freeways, county expressways, local streets and roads, bike paths, sidewalks, and a wide assortment of transit technologies (heavy rail, light rail, intercity rail, buses, trolleys and ferries).

Plan Bay Area Overview

The proposed Plan Bay Area meets the requirements of SB 375 by developing an integrated transportation and land use plan and attains the per-capita GHG emission reduction targets of -7 percent by year 2020 and -15 percent by year 2035 from 2005 levels. Under the proposed Plan, emission reductions continue on a downward trajectory through 2050. The proposed Plan reinforces land use and transportation integration per SB 375 and presents a vision of what the Bay Area's land use patterns and transportation networks might look like in 2040. The adopted goals of the proposed Plan are:

- Climate Protection
- Adequate Housing
- Healthy and Safe Communities
- Open Space and Agricultural Preservation
- Equitable Access
- Economic Vitality
- Transportation System Effectiveness

The Plan objectives are reflected in the following performance targets that measure the region's progress towards meeting these goals and are consistent with the requirements of SB 375:

- Reduce per-capita CO₂ emissions from cars and light-duty trucks by 15 percent.

¹ Census 2010. A Combined Statistical Area is a census defined metropolitan region that consists of two or more adjacent Core Based Statistical Areas (CBSAs) that have substantial employment interchange. The CBSAs that combine to create a CSA retain separate identities within the larger CSA.

- House 100 percent of the region’s projected 25-year growth by income level without displacing current low-income residents.

These goals and performance targets are more fully explored in Chapter 1.2. An alternative that performs substantially worse than the proposed Plan with respect to meeting the plan goals and these performance targets would not achieve even the basic objectives of the proposed Plan.

FORECASTED GROWTH

Looking ahead to 2040, the horizon year for the proposed Plan, it is forecast by ABAG 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). To house the future population, it is estimated that 660,000 new housing units would be built in the same timeframe. Forecasted growth from 2010 through 2040 is shown in **Table ES-1**.

TABLE ES-1: TOTAL PROJECTED GROWTH FOR THE BAY AREA, 2010-2040

	<i>2010</i>	<i>2040</i>	<i>Growth 2010 - 2040</i>	<i>% Change</i>	<i>Annual Growth Rate</i>
Population	7,151,000	9,299,000	2,148,000	30%	0.9%
Households	2,608,000	3,308,000	700,000	27%	0.8%
Housing Units	2,786,000	3,446,000	660,000	24%	0.7%
Jobs	3,385,000	4,505,000	1,120,000	33%	1.0%

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

LAND USE STRATEGY

To plan for this future growth, the proposed Plan calls for focused housing and job growth around high-quality transit corridors, particularly within areas identified by local jurisdictions as Priority Development Areas (PDAs). Opportunities for focused growth development in Transit Priority Project (TPP)-eligible areas, as defined by SB 375 in Public Resources Code section 21155, which often overlap with PDAs, are also encouraged and facilitated by the proposed Plan. This land use strategy enhances mobility and economic growth by linking housing/jobs with transit and existing transportation infrastructure, thus offering a more efficient land use pattern around transit and a greater return on existing and planned transit investments. Beyond the emphasis on transit-oriented development, the proposed Plan’s land use strategy broadly calls for new housing and jobs in locations that expand existing communities and build off of all existing transportation investments.

TRANSPORTATION

The proposed Plan includes a financially constrained transportation investment plan as required by State and federal planning regulations. It includes transportation projects and programs that would be funded through existing and future revenues that are projected to be reasonably available to the region over the timeframe covered by the proposed Plan. A total of \$289 billion in revenues is available for the financially constrained Plan Bay Area. That is, the proposed Plan and alternatives evaluated in the EIR are financially constrained to be within the \$289 billion envelope.

A more detailed description of the proposed Plan is included in *Chapter 1.2: Overview of the Proposed Plan Bay Area*.

Alternatives

A full description of the alternatives analyzed in this EIR and the alternative selection process is provided in Part 3. The alternatives are as follows:

ALTERNATIVE 1: NO PROJECT

The No Project alternative consists of two elements: (a) the existing 2010 land uses plus continuation of existing land use policy as defined in adopted general plans, zoning ordinances, etc. from all jurisdictions in the region and (b) the existing 2010 transportation network plus highway, transit, local roadway, bicycle and pedestrian projects that have either already received full funding or are scheduled for full funding and received environmental clearance by May 1, 2011.

ALTERNATIVE 2: PROPOSED PLAN

Alternative 2 is the proposed Plan analyzed in this EIR. This alternative assumes a land use development pattern that concentrates future household and job growth into Priority Development Areas (PDAs) identified by local jurisdictions. It pairs this land development pattern with MTC's Preferred Transportation Investment Strategy, which dedicates nearly 90 percent of future revenues to operating and maintaining the existing road and transit system. A more detailed overview of the proposed Plan is in Chapter 1.2.

ALTERNATIVE 3: TRANSIT PRIORITY FOCUS

This alternative includes the potential for more efficient land uses in Transit Priority Project (TPP) areas, as defined by Senate Bill 375 (PRC section 21155), and would be developed at higher densities than existing conditions to support high quality transit. The transportation investment strategy in this alternative tests a slightly reduced express lane network that focuses on HOV lane conversions and gap closures, as well as increased funding for the implementation of recommendations from the Comprehensive Operations Analysis of BART and AC Transit above what is included in the Preferred Transportation Investment Strategy. This alternative also includes a Regional Development Fee based on development in areas that generate high levels of vehicle miles travelled, and a higher peak period toll on the San Francisco-Oakland Bay Bridge.

ALTERNATIVE 4: ENHANCED NETWORK OF COMMUNITIES

This alternative seeks to provide sufficient housing for all people employed in the Bay Area with no commuters from other regions and allows for more dispersed growth patterns than the proposed Plan, although development is still generally focused around PDAs. The transportation investment strategy is consistent with the Preferred Transportation Investment Strategy, also used in the proposed Plan, and includes a higher peak period toll on the San Francisco-Oakland Bay Bridge.

ALTERNATIVE 5: ENVIRONMENT, EQUITY AND JOBS

This alternative seeks to maximize affordable housing in opportunity areas in both urban and suburban areas through incentives and housing subsidies. The suburban growth is supported by increased transit service to historically disadvantaged communities and a reduced roadway network. This alternative includes imposing a Vehicle Miles Traveled (VMT) tax and a higher peak period toll on the San Francisco-Oakland Bay Bridge to fund transit operations.

Key EIR assumptions

The following key assumptions were used in the impact analysis:

- The base year or existing conditions for the land use and transportation impact analysis is 2010, as this year provides the most recent best data available for land use, transportation, and demographics. The only exception appears in *Chapter 2.5: Greenhouse Gases and Climate Change*, which uses a 2005 baseline per the CARB target setting process to determine impacts under Criterion 1 related to achieving the requirements of SB 375.
- The total amount of growth projected for the Bay Area through 2040 is based on ABAG's Plan Bay Area Forecast of Jobs, Population and Housing (the forecasts used to develop the Jobs-Housing Connection) that is available for review on the project website (<http://www.onebayarea.org>); this amount of growth is assumed in the proposed Plan, which identifies a land use pattern to accommodate the projected growth.
- This analysis does not consider phasing of improvements or interim stages of the proposed Plan Bay Area between 2010 and 2040, as the purpose of the analysis is to evaluate the Plan as a whole. The one exception to this approach appears in *Chapter 2.5: Greenhouse Gases and Climate Change*, which includes an examination of impacts in 2020 and 2035 as compared to a 2005 baseline per the ARB target setting process to determine impacts relating to achieving the statutory requirements of Senate Bill 375.
- As a program-level EIR, individual project impacts are not addressed; rather, this analysis focuses on the aggregate impacts of the proposed Plan that may be regionally significant.

CUMULATIVE IMPACT ASSUMPTIONS

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 in this EIR throughout Part Two is a

cumulative analysis compliant with the requirements of CEQA and the CEQA Guidelines. Furthermore, this EIR contains analysis of cumulative regional impacts, as differentiated from more generalized localized impacts for every identified impact area.

Plan Impacts

The analysis emphasizes the impacts of the proposed Plan Bay Area as a complete program, rather than as detailed analysis of the individual transportation improvements and land use strategy included in the proposed Plan. Individual improvements and development projects must still independently comply with the requirements of CEQA. As required by CEQA, this EIR identifies three types of impacts:

- Short-term impacts;
- Long-term impacts; and
- Cumulative impacts.

The EIR addresses regional impacts as well as generalized localized impacts. It also, to the extent feasible, distinguishes between impacts caused by transportation improvements and impacts related to proposed land use patterns.

Table ES-2 summarizes the impact conclusions and recommended mitigation measures identified in this EIR. The impacts are organized by environmental impact issue area in the order in which they appear in Part Two.

Environmentally Superior Alternative

CEQA Guidelines require each EIR to identify the environmentally superior alternative among the alternatives analyzed. If the No Project alternative is identified as the environmentally superior alternative, then the EIR must identify another alternative from among the alternatives analyzed. According to the analysis in Chapter 3.1, Alternative 5 would result in the lowest level of environmental impacts, but only marginally lower, as compared to all alternatives (including the proposed Plan), and therefore is identified as the environmentally superior alternative. Alternative 3 results in similar impacts to the proposed Plan, and Alternative 4 and the No Project alternative have mixed environmental outcomes. Overall, variations in environmental impacts among alternatives are minor. This determination does not factor in other benefits of the proposed Plan outside of environmental effects. More specifically:

- In **Transportation**, Alternative 3 has the least environmental impact as it features shorter commute travel times (three percent shorter than the proposed Plan) and a lesser amount of congested VMT (14 percent fewer VMT at LOS F as compared to the proposed Plan) and the least potential for transit vehicle crowding (30 percent utilization of public transit systems, the same as the No Project alternative, and three percent less than the proposed Plan). These results are due to shifting regional growth to the Transit Priority Project eligible areas, with the greatest emphasis on growth in the urban core close to high-frequency transit.

- In **Air Quality**, Alternative 5 has the least environmental impact as it results in the lowest criteria pollutant emissions (1.7 percent fewer criteria pollutant emissions as compared to the proposed Plan) as well as lowest TAC emissions of all of the alternatives (1.9 percent fewer TAC emissions as compared to the proposed Plan). This is a result of placing a greater emphasis than the other alternatives on aligning compact land use development with transit service and increasing transit capacity.
- In **Energy**, Alternative 4 would result in the lowest per capita energy use (3.3 percent less than the proposed Plan and 2.7 percent less than Alternative 5), and would therefore have the least environmental impact.
- In **Greenhouse Gas Emissions**, the proposed Plan and Alternative 5 perform equally in regard to meeting SB 375 emission reduction targets in 2035 (both achieving a 16.4 percent reduction, one percent better than Alternative 3, 1.6 percent better than Alternative 4, and 9.6 percent better than the No Project alternative). Alternative 5 performs slightly better in terms of total emissions reductions (achieving a 17 percent reduction from 2010 to 2040, one percent better than Alternative 3 and two percent better than the proposed Plan).
- In **Sea Level Rise**, the No Project alternative includes the fewest transportation projects exposed to midcentury sea level rise inundation (the No Project alternative includes 15 projects, Alternative 5 includes 21 projects, and the proposed Plan, Alternative 3, and Alternative 4 include 32 projects exposed to midcentury sea level rise inundation). Alternative 5 includes the fewest residents (12 percent less than the proposed Plan), and new residential development (10 percent less than under the proposed Plan) exposed to midcentury sea level rise inundation because it distributes growth to areas farther from the Bay.
- In **Land Use (conversion of agricultural and forest land)**, Alternative 4 results in the fewest acres of important agricultural and open space land converted to urbanized use, as well as the fewest acres of forest and timberland converted to urbanized use.
- In **Noise** the No Project alternative has the fewest environmental impacts since it results in the lowest number of roadway miles exposed to noise levels at or above 66 dBA. It also includes the fewest transit extension projects, resulting in the smallest increase in transit noise and vibration compared to other alternatives.
- In **Biological Resources, Water Resources, Cultural Resources, and Visual Resources**, Alternative 5 combines compact development with low transportation infrastructure development, resulting in fewer physical impacts tied to these resources. It is noted that in terms of land use development-related impacts alone (excluding transportation projects), the proposed Plan is the most compact and would have the least impact on these resources.
- In **Geology, Public Utilities, Public Services, and Hazardous Materials**, Alternatives 1, 2 (proposed Plan), 3 and 5 are comparable and have fewer impacts than Alternative 4. Alternative 4 includes the most growth, thereby inherently exposing the most people to geologic and hazards risks, and resulting in the greatest impacts on existing public service, recreation, and utility systems. One exception to this is in regard to wastewater treatment, where Alternative 4 has the least impact because of limited growth in San Francisco, which has likely inadequate wastewater treatment capacity under all other alternatives.
- For **Historic Resources and Land Use (community disruption or displacement, alteration and separation)**, all alternatives perform similarly. Since all alternatives include growth in

urbanized areas where historic resources are likely to exist, impacts on historic resources would be similar. For land use, impacts related to community disruption or displacement and alteration and separation would be highly localized and similar across the alternatives.

While Alternative 5 is the environmentally preferred alternative due to its overall GHG emissions reductions and estimated reduction in criteria and TAC emissions, the proposed Plan does include some benefits over Alternative 5. For instance, the proposed Plan results in the lowest VMT per capita (the same as Alternative 4), with one percent fewer daily VMT per capita than Alternative 5. Alternative 5 also exhibits congested VMT levels 18 percent higher in the AM peak, seven percent higher in the PM peak, and 11 percent higher over the course of a typical weekday as compared to the proposed Plan. Finally, the proposed Plan results in fewer acres of agricultural and open space conversion as compared to Alternative 5 (though more than Alternative 4), and the fewest acres of important farmland (excluding grazing land) of all alternatives.

Another important consideration is that the proposed Plan was developed through extensive coordination with local jurisdictions. Alternative 5 assumes residential growth at levels that some local jurisdictions may be unlikely to implement, since it includes growth in areas that local jurisdictions have not planned for or do not currently anticipate.

In addition, there are some important unanswered questions about the feasibility of Alternative 5 that the ABAG Board and the MTC Commissioners will address during deliberations on this EIR. Specifically, implementation of the VMT tax, which is a key component of Alternative 5, may prove to be infeasible because it would require legislative approval and, in light of Proposition 26 (the “Stop Hidden Taxes” initiative), may require approval by a two-thirds supermajority vote of the Legislature. While there is currently a large majority of Democrats in the Legislature, and authorizing legislation may therefore be easier to achieve at this time, the difficulty of predicting whether new legislation will actually be enacted may make Alternative 5 infeasible.

Policy makers will be required to judge the relative importance of the various issue areas in making their final decision.

Areas of Known Controversy

Section 15123 of the CEQA Guidelines requires that an EIR identify areas of controversy which are known to the Lead Agency, including issues raised by other agencies and the public. Areas of controversy associated with the proposed Plan are made known through comments received during the Notice of Preparation (NOP) process, as well as input solicited during public scoping meetings and an understanding of the community issues in the study area. Some areas of known controversy, including issues raised by some members of the community, related to the proposed Plan Bay Area and EIR include:

- Whether the proposed Plan’s assumptions of future land use development patterns are feasible given that MTC and ABAG cannot regulate land uses at a regional or local level.
- Concerns about whether the degree and scale of growth proposed within existing communities would alter their appearance, quality of life, and affordability, and whether it would conflict with the existing plans and regulations of the local jurisdiction.

- Determining whether the proposed Plan’s emphasis on maintaining and sustaining the existing regional transportation system will be adequate to serve the Bay Area’s anticipated population and employment growth.
- Assessing whether the proposed transportation investment strategy can reduce GHG emissions and exposure to air pollutants even as the region’s population and economic base continue to grow.
- Determining whether and where sea level rise impacts will occur and how best to minimize those impacts.
- Concerns that increased concentrations of population in focused areas would overwhelm existing public services and utilities, such as parks, police and fire services, water supply, etc.

This EIR acknowledges these known controversies as reported during the NOP scoping period and ongoing agency consultation. To the extent these areas of controversy relate to environmental impacts, they are analyzed at the regional level in Part Two of this EIR.

Issues to be Resolved

CEQA Guidelines section 15123(b)(3) requires that an EIR contain a discussion of issues to be resolved and whether or how to mitigate significant effects. Issues to be resolved include:

- How to address potential impacts from the proposed land development pattern that must be mitigated by the local land use authority, since neither MTC nor ABAG have jurisdiction over land use regulations.
- The degree to which MTC and ABAG can provide adequate incentives for implementation of changes to land use policy.
- How best to require mitigations that can be enacted by project sponsors and/or implementing agencies in a manner to ensure CEQA streamlining for qualifying projects, per SB 375, can occur.

When adopting the proposed Plan Bay Area, the MTC Commission and ABAG Board must decide whether specific overriding economic, legal, social, technological or other benefits of the project outweigh the significant environmental impacts that cannot be feasibly avoided or substantially reduced through implementation of feasible mitigation or alternatives. If so, they would adopt a Statement of Overriding Considerations.

Summary Table of Impacts and Mitigation Measures

Table ES-2 summarizes impacts, mitigation measures, and significance conclusions after mitigation (far right column), by issue area. Note that implementing agencies and/or project sponsors shall consider implementation of mitigations measures including but not limited to those identified in the table below. For more details, please see *Part Two: Settings, Impacts, and Mitigation Measures*.

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
Transportation			
2.1-1	Implementation of the proposed Plan could result in a substantial increase in per-trip travel time for commute travel by any mode over existing conditions. A substantial increase in per-trip travel time is defined as greater than 5 percent.	None required.	<i>Less than Significant</i>
2.1-2	Implementation of the proposed Plan could result in a substantial increase in per-trip travel time for non-commute travel by any mode over existing conditions. A substantial increase in per-trip travel time is defined as greater than 5 percent.	None required.	<i>Less than Significant</i>
2.1-3	Implementation of the proposed Plan could result in a substantial increase in per capita VMT on facilities experiencing level of service (LOS) F compared to existing conditions during AM peak periods, PM peak periods, or during the day as a whole (LOS F defines a condition on roads where traffic substantially exceeds capacity, resulting in stop-and-go conditions for extended periods of time). A substantial increase in LOS F-impacted per capita VMT is defined as greater than 5 percent.	<p>2.1(a) MTC, in its role as the Bay Area Toll Authority (BATA), shall pursue an additional peak period bridge toll on the San Francisco Oakland Bay Bridge to discourage vehicle travel during weekday peak periods, shifting travelers to other times of day or other modes.</p> <p>2.1(b) MTC and the BAAQMD shall proceed with implementation of the region's commute benefit ordinance authorized by Senate Bill 1339, which affects all major employers (with more than 50 employees), and discourages auto-based commute travel.</p> <p>2.1(c) MTC shall pursue a policy that requires the implementation of ramp metering throughout the region's highway network as a condition of discretionary funding.</p>	<i>Significant and Unavoidable</i>
2.1-4	Implementation of the proposed Plan could result in a substantial increase in per capita VMT compared to existing conditions. A substantial increase in per capita VMT is defined as greater than 5 percent.	None required.	<i>No Adverse Impact</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
2.1-5	Implementation of the proposed Plan could result in increased percent utilization of regional transit supply resulting in an exceedance of transit capacity at AM peak hours, at PM peak hours, or for the day. An exceedance is defined as passenger seat-mile demand for any transit technology being greater than 80 percent of passenger seat-miles supplied by transit operators.	None required.	<i>No Adverse Impact</i>
Air Quality			
2.2-1(a)	Implementation of the proposed Plan could conflict with or obstruct implementation of the primary goals of an applicable air quality plan.	None required.	<i>Less than Significant</i>
2.2-1(b)	Implementation of the proposed Plan could conflict with or obstruct implementation of applicable control measures of an applicable air quality plan.	None required.	<i>Less than Significant</i>
2.2-1(c)	Implementation of the proposed Plan could conflict with or obstruct implementation of any control measures in an applicable air quality plan.	None required.	<i>Less than Significant</i>
2.2-2	Implementation of the proposed Plan could result in a substantial net increase in construction-related emissions.	2.2(a) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to best management practices (BMPs), such as the following: ²	<i>Significant and Unavoidable</i> <i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation</i>

² Adapted from BAAQMD, CEQA Air Quality Guidelines (May 2011)

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>Construction Best Practices for Exhaust</p> <ul style="list-style-type: none"> • The applicant/general contractor for the project shall submit a list of all off-road equipment greater than 25 hp that will be operating for more than 20 hours over the entire duration of the construction activities at the site, including equipment from subcontractors, to BAAQMD for review and certification. The list shall include all of the information necessary to ensure the equipment meets the following requirement: <ul style="list-style-type: none"> – All off-road equipment shall have: 1) engines that meet or exceed either USEPA or ARB Tier 2 off-road emission standards; and 2) engines are retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy (VDECS), if one is available for the equipment being used.³ • Idling time of diesel powered construction equipment and trucks shall be limited to no more than two minutes. Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with the manufacturers’ specifications. • Portable diesel generators shall be prohibited. Grid power electricity should be used to provide power at construction sites; or propane and natural gas generators may be used when grid power electricity is not feasible. <p>Construction Best Practices for Dust</p> <ul style="list-style-type: none"> • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. For projects over 5 acres of size, soil moisture 	<p><i>Measures: Less than Significant with Mitigation</i></p>

³ Equipment with engines meeting Tier 4 Interim or Tier 4 Final emission standards automatically meet this requirement, therefore a VDECS would not be required.

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>should be maintained at 12 percent. Moisture content can be verified by lab samples or moisture probe.</p> <ul style="list-style-type: none"> • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping should be done in conjunction with thorough watering of the subject roads. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • All roadway, driveway, and sidewalk paving shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading. • All construction sites shall provide a posted sign visible to the public with the telephone number and person to contact at the Lead Agency regarding dust complaints. The recommended response time for corrective action shall be within 48 hours. BAAQMD’s Complaint Line (1-800 334- 6367) shall also be included on posted signs to ensure compliance with applicable regulations. • All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph. • Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity. • Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established. 	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time. • All trucks and equipment, including their tires, shall be washed off prior to leaving the site. • Site accesses to a distance of 100 feet from the paved road shall be treated with a six- to 12-inch compacted layer of wood chips, mulch, or gravel. • Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than 1 percent. 	
2.2-3(a)	Implementation of the proposed Plan could cause a net increase in emissions of criteria pollutants ROG, NO _x , CO, and PM _{2.5} from on-road mobile sources compared to existing conditions.	None required.	<i>No Adverse Impact</i>
2.2-3(b)	Implementation of the proposed Plan could cause a net increase in emissions of PM ₁₀ from on-road mobile sources compared to existing conditions.	<p>2.2(b) MTC and ABAG, in partnership with BAAQMD, and other partners who would like to participate, shall work to leverage existing air quality and transportation funds and seek additional funds to continue to implement BAAQMD and ARB programs aimed at retrofits and replacements of trucks and locomotives.</p> <p>2.2(c) MTC and ABAG, in partnership with BAAQMD and the Port of Oakland, and other partners who would like to participate, shall work together to secure incentive funding that may be available through the Carl Moyer Memorial Air Quality Standards Attainment Program to reduce port-related emissions.</p> <p>Mitigation Measures 2.1 (a), 2.1(b), and 2.1 (c) (included in Chapter 2.1, Transportation) as well as 2.2 (d) and 2.2 (e) (included below</p>	<i>Significant and Unavoidable</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
2.2-4	Implementation of the proposed Plan could cause a cumulative net increase in emissions of diesel PM, 1,3-butadiene, and benzene (toxic air contaminants) from on-road mobile sources compared to existing conditions.	None required.	<i>No Adverse Impact</i>
2.2-5(a)	Implementation of the proposed Plan could cause a localized net increase in sensitive receptors located in Transit Priority Project (TPP) corridors where TACs or fine particulate matter (PM _{2.5}) concentrations result in a cancer risk greater than 100/million or a concentration of PM _{2.5} greater than 0.8 µg/m. ³	Implement Mitigation Measure 2.2(d) under Impact 2.2-5(b).	<i>Significant and Unavoidable</i>
2.2.5(b)	Implementation of the proposed Plan could cause a 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 _{2.5} emissions.	<p>2.2(d) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to best management practices (BMPs), such as the following:</p> <ul style="list-style-type: none"> • Installation of air filtration to reduce cancer risks and PM exposure for residents, and other sensitive populations, in buildings that are in close proximity to freeways, major roadways, diesel generators, distribution centers, railyards, railroads or rail stations, and ferry terminals. Air filter devices shall be rated MERV-13 or higher. As part of implementing this measure, an ongoing maintenance plan for the building’s HVAC air filtration system shall be required. • Phasing of residential developments when proposed within 500 feet of freeways such that homes nearest the freeway are built last, if feasible. 	<i>Significant and Unavoidable</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Sites shall be designed to locate sensitive receptors as far as possible from any freeways, roadways, diesel generators, distribution centers, and railyards. Operable windows, balconies, and building air intakes shall be located as far away from these sources as feasible. If near a distribution center, residents shall not be located immediately adjacent to a loading dock or where trucks concentrate to deliver goods. • Limiting ground floor uses in residential or mixed-use buildings that are located within the set distance of 500 feet to a non-elevated highway or roadway. Sensitive land uses, such as residential units or day cares, shall be prohibited on the ground floor. • Planting trees and/or vegetation between sensitive receptors and pollution source, if feasible. Trees that are best suited to trapping PM shall be planted, including one or more of the following: Pine (<i>Pinus nigra</i> var. <i>maritima</i>), Cypress (<i>X Cupressocyparis leylandii</i>), Hybrid poplar (<i>Populus deltoids X trichocarpa</i>), and Redwoods (<i>Sequoia sempervirens</i>). • Within developments, sensitive receptors shall be separated as far away from truck activity areas, such as loading docks and delivery areas, as feasible. Loading dock shall be required electrification and all idling of heavy duty diesel trucks at these locations shall be prohibited. • If within the project site, diesel generators that are not equipped to meet ARB’s Tier 4 emission standards shall be replaced or retrofitted. • If within the project site, emissions from diesel trucks shall be reduced through the following measures: 	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> – Installing electrical hook-ups for diesel trucks at loading docks. – Requiring trucks to use Transportation Refrigeration Units (TRU) that meet Tier 4 emission standards. – Requiring truck-intensive projects to use advanced exhaust technology (e.g. hybrid) or alternative fuels. – Prohibiting trucks from idling for more than two minutes as feasible. • Establishing truck routes to avoid residential neighborhoods or other land uses serving sensitive populations. A truck route program, along with truck calming, parking and delivery restrictions, shall be implemented to direct traffic activity at non permitted sources and large construction projects. 	
2.2-5(c)	Implementation of the proposed Plan could cause a localized net increase in sensitive receptors located in Transit Priority Project (TPP) corridors where TACs or fine particulate matter (PM _{2.5}) concentrations result in noncompliance with an adopted Community Risk Reduction Plan.	None required.	<i>Less than Significant</i>
2.2-6	Implementation of the proposed Plan could result in a localized larger increase or smaller decrease of TACs and or PM _{2.5} emissions in disproportionately impacted communities compared to the remainder of the Bay Area communities.	<p>2.2(e) MTC/ABAG shall partner with BAAQMD to develop a program to install air filtration devices in existing residential buildings, and other buildings with sensitive receptors, located near freeways or sources of TACs and PM_{2.5}.</p> <p>2.2(f) MTC/ABAG shall partner with BAAQMD to develop a program to provide incentives to replace older locomotives and trucks in the region to reduce TACs and PM_{2.5}.</p> <p>In addition, Mitigation Measures 2.1 (a), 2.1(b), and 2.1 (c) (included in <i>Chapter 2.1, Transportation</i>) and 2.2 (d) (included under Impact</p>	<i>Significant and Unavoidable</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		2.2-5(b)) could help reduce TAC and PM _{2.5} emissions.	
Land Use and Physical Development			
2.3-1	Implementation of the proposed Plan could result in residential or business disruption or displacement of substantial numbers of existing population and housing.	<p>2.3(a) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Regulating construction operations on existing facilities to minimize traffic disruptions and detours, and to maintain safe traffic operations. • Ensuring construction operations are limited to regular business hours where feasible. • Controlling construction dust and noise. See “Construction Best Practices for Dust” under Mitigation Measure 2.2(a) in <i>Chapter 2.2: Air Quality</i>. • Controlling erosion and sediment transport in stormwater runoff from construction sites. See “Construction Best Practices for Dust” under Mitigation Measure 2.2(a) in <i>Chapter 2.2: Air Quality</i>. • Complying with existing local regulations and policies that exceed or reasonably replace any of the above measures that reduce short-term disruption and displacement. <p>Mitigation Measure 2.2(a) in <i>Chapter 2.2: Air Quality</i> includes additional applicable measures related to this impact, and is included here by reference.</p> <p>2.3(b) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p>	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
2.3-2	Implementation of the proposed Plan could result in 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.	<ul style="list-style-type: none"> • Developing pedestrian and bike connectors across widened sections of roadway; • Using sidewalk, signal, and signage treatments to improve the pedestrian connectivity across widened sections of roadway; • Using site redesign or corridor realignment, where feasible, to avoid land use disruption; and • Complying with existing local regulations and policies that exceed or reasonably replace any of the above measures that reduce long-term disruption and displacement. <p>2.3(c) Through regional programs, such as MTC/ABAG’s Priority Development Area (PDA) Planning Program, MTC/ABAG shall continue to support the adoption of local zoning and design guidelines that encourage pedestrian and transit access, infill development, and vibrant neighborhoods.</p> <p>2.3(d) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. All new transportation projects shall be required to incorporate design features such as sidewalks, bike lanes, and bike/pedestrian bridges or tunnels that maintain or improve access and connections within existing communities and to public transit. Implementing agencies shall require project sponsors to comply with existing local regulations and policies that exceed or reasonably replace measures that reduce community separation.</p> <p>2.3(e) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. New development projects shall be required to provide connectivity for all modes such that new development does not separate existing uses, and improves access</p>	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>where needed and/or feasible, by incorporating ‘complete streets’ design features such as pedestrian-oriented streets and sidewalks, improved access to transit, and bike routes where appropriate. Implementing agencies shall require project sponsors to comply with existing local regulations and policies that exceed or reasonably replace measures that reduce community separation.</p> <p>2.3(f) Through regional programs such as the OneBayArea Grants (OBAG), MTC/ABAG shall continue to support planning efforts for locally sponsored traffic calming and alternative transportation initiatives, such as paths, trails, overcrossings, bicycle plans, and the like that foster improved neighborhoods and community connections.</p> <p>Mitigation Measures 2.3(a), 2.3(b), and 2.3(c) outlined for Impact 2.3-1 would also reduce community separation impacts.</p>	
2.3-3	Implementation of the proposed Plan could conflict substantially with the land use portion of adopted local general plans or other applicable land use plans, including specific plans, existing zoning, or regional plans such as coastal plans or the Bay Plan.	None required.	<i>Less than Significant</i>
2.3-4	Implementation of the proposed Plan could convert substantial amounts of important agricultural lands and open space or lands under Williamson Act contract to non-agricultural use.	<p>2.3(g) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project- and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Requiring project relocation or corridor realignment, where feasible, to avoid farmland, especially Prime Farmland; • Acquiring conservation easements on land at least equal in quality and size as partial compensation for the direct loss of agricultural land; 	<i>Significant and Unavoidable</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Maintain and expand agricultural land protections such as urban growth boundaries; • If a Williamson Act contract is terminated, a ratio greater than 1:1 of land equal in quality shall be set aside in a conservation easement, as recommended by the Department of Conservation; • Instituting new protection of farmland in the project area or elsewhere in the County through the use of less than permanent long-term restrictions on use, such as 20-year Farmland Security Zone contracts (Government Code Section 51296 et seq.) or 10-year Williamson Act contracts (Government Code Section 51200 et seq.); • Assessing mitigation fees that support the commercial viability of the remaining agricultural land in the project area, County, or region through a mitigation bank that invests in agricultural infrastructure, water supplies, marketing, etc.; • Minimizing severance and fragmentation of agricultural land by constructing underpasses and overpasses at reasonable intervals to provide property access; • Requiring agricultural enhancement investments such as supporting farmer education on organic and sustainable practices, assisting with organic soil amendments for improved production, and upgrading irrigation systems for water conservation; • Requiring berms, buffer zones, setbacks, and fencing to reduce use conflicts between new development and farming uses and to protect the functions of farmland; and • Requiring other conservation tools available from the California Department of Conservation’s Division of Land Resource Protection. 	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Requiring compliance with existing local regulations and policies that exceed or reasonably replace any of the above measures that reduce farmland conversion. <p>2.3(h) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Requiring project relocation or corridor realignment, where feasible, to avoid protected open space. • Requiring conservation easements on land at least equal in quality and size as partial compensation for the direct loss of protected open space. • Maintain and expand open space protections such as urban growth boundaries. • Requiring compliance with existing local regulations and policies that exceed or reasonably replace any of the above measures that reduce open space conversion. 	
2.3-5	Implementation of the proposed Plan could result in the 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.	<p>2.3(i) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Requiring project relocation or corridor realignment, where feasible, to avoid timberland or forest land. • Requiring conservation easements on land at least equal in quality and size as partial compensation for the direct loss of timberland or forest land. • Requiring compliance with existing local regulations and policies that exceed or reasonably replace any of the above measures that reduce forest land conversion. 	<i>Significant and Unavoidable</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
Energy			
2.4-1	Implementation of the proposed Plan could result in an increase in per-capita direct and indirect energy consumption compared to existing conditions.	None required.	<i>Less than Significant</i>
2.4-2	Implementation of the proposed Plan could be inconsistent with adopted plans or policies related to energy conservation.	None required.	<i>No Adverse Impact</i>
Climate Change and Greenhouse Gases			
2.5-1	Implementation of the proposed Plan could fail to reduce per capita passenger vehicle and light duty truck CO ₂ emissions by 7 percent by 2020 and by 15 percent by 2035 as compared to 2005 baseline, per SB 375.	None required.	<i>No Adverse Impact</i>
2.5-2	Implementation of the proposed Plan could result in a net increase in direct and indirect GHG emissions in 2040 when compared to existing conditions.	None required.	<i>No Adverse Impact</i>
2.5-3	Implementation of the proposed Plan could substantially impede attainment of goals set forth in Executive Order S-3-05 and Executive Order B-16-2012.	None required.	<i>Less than Significant</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
2.5-4	Implementation of the proposed Plan could substantially conflict with any other applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.	None required.	No Adverse Impact
2.5-5	Implementation of the proposed Plan may result in a net increase in transportation investments within areas regularly inundated by sea level rise by midcentury.	<p>2.5(a) MTC and ABAG shall continue coordinating with BCDC, in partnership with the Joint Policy Committee and regional agencies and other partners who would like to participate, to conduct vulnerability and risk assessments for the region’s transportation infrastructure. These assessments will build upon MTC and BCDC’s Adapting to Rising Tides Transportation Vulnerability and Risk Assessment Pilot Project focused in Alameda County. Evaluation of regional and project-level vulnerability and risk assessments will assist in the identification of the appropriate adaptation strategies to protect transportation infrastructure and resources, as well as land use development projects, that are likely to be impacted and that are a priority for the region to protect. The Adaptation Strategy subsection found at the end of this section includes a list of potential adaptation strategies that can mitigate the impacts of sea level rise. In most cases, more than one adaptation strategy will be required to protect a given transportation project or land use development project, and the implementation of the adaptation strategy will require coordination with other agencies and stakeholders. As MTC and ABAG conduct vulnerability and risk assessments for the region’s transportation infrastructure, the Adaptation Strategy subsection should serve as a guide for selecting adaptation strategies, but the list should not be considered all inclusive of all potential adaptation strategies as additional strategies not included in this list may also have the potential to reduce significant impacts.</p> <p>2.5(b) MTC and ABAG shall work with the Joint Policy Committee to create a regional sea level rise adaptation strategy for the Bay Area.</p>	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>Implementing agencies and/or project sponsors shall consider implementation of mitigations measures including but not limited to those identified below.</p> <p>2.5(c) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. The project sponsors and implementing agencies shall coordinate with BCDC, Caltrans, local jurisdictions (cities and counties), and other transportation agencies to develop Transportation Asset Management Plans (TAMPs) that consider the potential impacts of sea level rise over the asset’s life cycle.</p> <p>2.5(d) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. Executive Order S-13-08 requires all state agencies, including Caltrans, to incorporate sea level rise into planning for all new construction and routine maintenance projects; however, no such requirement exists for local transportation assets and development projects. Implementing agencies shall require project sponsors to incorporate the appropriate adaptation strategy or strategies to reduce the impacts of sea level rise on specific transportation and land use development projects where feasible based on project- and site-specific considerations. Potential adaptation strategies are included in the Adaptation Strategy subsection found at the end of this section.</p>	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
2.5-6	Implementation of the proposed Plan may result in a net increase in the number of people residing within areas regularly inundated by sea level rise by midcentury.	Implement Mitigation Measures 2.5(b) and 2.5(d).	<i>Significant and Unavoidable</i>
2.5-7	Implementation of the proposed Plan may result in an increase in land use development within areas regularly inundated by sea level rise by midcentury.	Implement Mitigation Measures 2.5(b) and 2.5(d).	<i>Significant and Unavoidable</i>
Noise			
2.6-1	Implementation of the proposed Plan could result in 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.	<p data-bbox="871 699 1625 886">2.6(a) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. Implementing agencies shall require one or more of the following set of noise attenuation measures under the supervision of a qualified acoustical consultant:</p> <ul data-bbox="871 902 1625 1333" style="list-style-type: none"> <li data-bbox="871 902 1625 1024">• Restricting construction activities to permitted hours as defined under local jurisdiction regulations;(e.g.; Alameda County Code restricts construction noise to between 7:00 am and 7:00 pm on weekdays and between 8:00 am and 5:00 pm on weekends) <li data-bbox="871 1040 1625 1146">• Properly maintaining construction equipment and outfitting construction equipment with the best available noise suppression devices (e.g. mufflers, silencers, wraps); <li data-bbox="871 1162 1625 1227">• Prohibiting idling of construction equipment for extended periods of time in the vicinity of sensitive receptors; <li data-bbox="871 1243 1625 1333">• Locating stationary equipment such as generators, compressors, rock crushers, and cement mixers as far from sensitive receptors as possible; 	<p data-bbox="1656 699 1822 753"><i>Significant and Unavoidable</i></p> <p data-bbox="1656 769 1892 992"><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Erecting temporary plywood noise barriers around the construction site when adjacent occupied sensitive land uses are present within 75 feet; • Implementing “quiet” pile-driving technology (such as pre-drilling of piles and the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions; • Using noise control blankets on building structures as buildings are erected to reduce noise emission from the site; and • Using cushion blocks to dampen impact noise from pile driving. <p>2.6(b) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following vibration attenuation measures under the supervision of a qualified acoustical consultant if pile-driving and/or other potential vibration-generating construction activities are to occur within 60 feet of a historic structure.</p> <ul style="list-style-type: none"> • The project sponsors shall engage a qualified geotechnical engineer and qualified historic preservation professional and/or structural engineer to conduct a pre-construction assessment of existing subsurface conditions and the structural integrity of nearby (within 60 feet) historic structures subject to pile-driving activity. If recommended by the pre-construction assessment, for structures or facilities within 60 feet of pile-driving activities, the project sponsors shall require groundborne vibration monitoring of nearby historic structures. Such methods and technologies shall be based on the specific conditions at the construction site such as, but not limited to, the pre-construction surveying of 	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>potentially affected historic structures and underpinning of foundations of potentially affected structures, as necessary.</p> <ul style="list-style-type: none"> • The pre-construction assessment shall include a monitoring program to detect ground settlement or lateral movement of structures in the vicinity of pile-driving activities and identify corrective measures to be taken should monitored vibration levels indicate the potential for building damage. In the event of unacceptable ground movement with the potential to cause structural damage, all impact work shall cease and corrective measures shall be implemented to minimize the risk to the subject, or adjacent, historic structure. <p>2.6(c) To mitigate pile-driving vibration impacts related to human annoyance, the implementing agency shall require project sponsors to implement Mitigation Measure 2.6(a) above where feasible based on project- and site-specific considerations.</p>	
2.6-2	Implementation of the proposed Plan could result in increased traffic volumes that could result in roadside noise levels that approach or exceed the FHWA Noise Abatement Criteria.	<p>2.6(d) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project- and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Adjustments to proposed roadway or transit alignments to reduce noise levels in noise sensitive areas. For example, below-grade roadway alignments can effectively reduce noise levels in nearby areas. • Techniques such as landscaped berms, dense plantings, reduced-noise paving materials, and traffic calming measures in the design of their transportation improvements. • Contributing to the insulation of buildings or construction of noise barriers around sensitive receptor properties adjacent to the transportation improvement; 	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
2.6-3	Implementation of the proposed Plan could result in increased noise exposure from transit sources that exceed FTA exposure thresholds.	<ul style="list-style-type: none"> • Use land use planning measures, such as zoning, restrictions on development, site design, and buffers to ensure that future development is noise compatible with adjacent transportation facilities and land uses; • Construct roadways so that they are depressed below-grade of the existing sensitive land uses to create an effective barrier between new roadway lanes, roadways, rail lines, transit centers, park-n-ride lots, and other new noise generating facilities; and • Maximize the distance between noise-sensitive land uses and new noise-generating facilities and transportation systems. <p>2.6(e) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. When finalizing a development project’s site plan, the implementing agency shall require that project sponsors locate noise-sensitive outdoor use areas away from adjacent noise sources and shield noise-sensitive spaces with buildings or noise barriers whenever possible to reduce the potential significant impacts with regard to exterior noise exposure for new sensitive receptors.</p> <p>2.6(f) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. When finalizing a land use development’s site plan or a transportation project’s design, the implementing agency shall ensure that sufficient setback between occupied structures and the railroad tracks is provided.</p> <p>2.6(g) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are</p>	<i>Significant and Unavoidable</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>not limited to the following. Prior to project approval, the implementing agency for a transportation project shall ensure that the transportation project sponsor applies the following mitigation measures to achieve a site-specific exterior noise performance standard as indicated in Figure 2.6-6 at sensitive land uses, as applicable for rail extension projects:</p> <ul style="list-style-type: none"> • Using sound reduction barriers such as landscaped berms and dense plantings; • Locating rail extension below grade; • Using methods to resilient damped wheels; • Using vehicle skirts; • Using under car acoustically absorptive material; and • Installing sound insulation treatments for impacted structures. 	
2.6-4	Implementation of the proposed Plan could result in increased vibration exposure from transit sources that exceed FTA exposure thresholds.	<p>2.6(h) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. When finalizing a development or transportation project’s site plan, the implementing agency shall ensure that sufficient setback between occupied structures and the railroad tracks is provided. To meet the 72 VdB limit for the maximum measured train vibration level, residential buildings should be setback a minimum of 65 feet from the center of the nearest track. Alternatively, a reduced setback may be attainable if the project sponsor can demonstrate a project-specific vibration exposure meeting a performance standard of 72 VdB. Depending on specific project conditions, this standard may be attainable without additional mitigation measures or may require applied mitigation such as use of elastomeric pads in the building foundation.</p>	<i>Significant and Unavoidable</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>2.6(i) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project- and site-specific considerations include, but are not limited to the following. Prior to project approval the implementing shall ensure that project sponsors apply the following mitigation measures to achieve a vibration performance standard of 72 VdB at residential land uses, as feasible, for rail extension projects:</p> <ul style="list-style-type: none"> • Using high resilience (soft) direct fixation fasteners for embedded track; • Installing Ballast mat for ballast and tie track. 	
2.6-5	Implementation of the proposed Plan could result in increased noise exposure from aircraft or airports.	None required.	<i>Less than Significant</i>
Geology and Seismicity			
2.7-1	Implementation of the proposed Plan may expose people or structures to substantial risk of property loss, injury or death related to fault rupture.	<p>2.7(a) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project- and site-specific considerations include, but are not limited to the following. To reduce impacts related to fault rupture, implementing agencies shall require project sponsors to comply with provisions of the Alquist-Priolo Act (Act) for project sites located within or across an Alquist-Priolo Hazard Zone. Project sponsors shall prepare site-specific fault identification investigations conducted by licensed geotechnical professionals in accordance with the requirements of the Act as well as any existing local or Caltrans regulations and policies that exceed or reasonably replace any of the Act requirements. Structures intended for human occupancy (defined as a structure that might be occupied a minimum of 2,000 hours per year) shall be located a minimum distance of 50 feet from any identified active fault traces. For the purposes of this mitigation, less than significant means consistent</p>	<i>Less than Significant with Mitigation</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
2.7-2	Implementation of the proposed Plan may expose people or structures to substantial risk related to ground shaking.	with federal, state, and local regulations and laws related to development in an Alquist-Priolo Hazard Zone. 2.7(b) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. To reduce impacts related to ground shaking, implementing agencies shall require project sponsors to comply with the most recent version of the California Building Code (CBC). Proposed improvements shall comply with Chapter 16, Section 1613 of the CBC which provides earthquake loading specifications for every structure and associated attachments that must also meet the seismic criteria of Associated Society of Civil Engineers (ASCE) Standard 07-05. In order to determine seismic criteria for proposed improvements, geotechnical investigations shall be prepared by state licensed engineers and engineering geologists to provide recommendations for site preparation and foundation design as required by Chapter 18, Section 1803 of the CBC. Geotechnical investigations shall also evaluate hazards such as liquefaction, lateral spreading, landslides, and expansive soils in accordance with CBC requirements and Special Publication 117A, where applicable. Recommended corrective measures, such as structural reinforcement and replacing native soils with engineered fill, shall be incorporated into project designs. For the purposes of this mitigation, less than significant means consistent with federal, state, and local regulations and laws related to building construction.	<i>Less than Significant with Mitigation</i>
2.7-3	Implementation of the proposed Plan may expose people or structures to substantial risk from seismic-related ground failure, including liquefaction.	Implement Mitigation Measure 2.7(b).	<i>Less than Significant with Mitigation</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance After Mitigation</i>
2.7-4	Implementation of the proposed Plan may expose people or structures to substantial risk related to landslides.	Implement Mitigation Measure 2.7(b).	<i>Less than Significant with Mitigation</i>
2.7-5	Implementation of the proposed Plan may result in substantial soil erosion or the loss of topsoil.	2.7(c) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. To reduce the risk of soil erosion, implementing agencies shall require project sponsors to comply with National Pollution Discharge Elimination System (NPDES) General Construction Permit requirements. Implementing agencies shall require project sponsors, as part of contract specifications with contractors, to prepare and implement best management practices (BMPs) as part of a Storm Water Pollution Prevention Plan that include erosion control BMPs consistent with California Stormwater Quality Association Handbook for Construction. For the purposes of this mitigation, less than significant means consistent with federal, state, and local regulations and laws related to construction practices.	<i>Less than Significant with Mitigation</i>
2.7-6	Implementation of the proposed Plan may locate a subsequent development project on a geologic unit or soil that is unstable, contains expansive properties, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	Implement Mitigation Measure 2.7(b).	<i>Less than Significant with Mitigation</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
Water Resources			
2.8-1	Implementation of the proposed Plan may violate water quality standards or waste or stormwater discharge requirements.	<p>2.8(a) To reduce the impact associated with potential water quality standards violations or waste or stormwater discharge requirement violations, implementing agencies shall require project sponsors to comply with the State, and federal water quality regulations for all projects that would alter existing drainage patterns in accordance with the relevant regulatory criteria including but not limited to the National Pollution Discharge Elimination System (NPDES) program, Provision C.3, and any applicable Stormwater Management Plans. Erosion control measures shall be consistent with NPDES General Construction Permit requirements including preparation and implementation of a Stormwater Pollution Prevention Plan, and final drainage plans shall be consistent with the San Francisco Regional MS4 NPDES permit or any applicable local drainage control requirements that exceed or reasonably replace any of these measures to project receiving waters from pollutants.</p> <p>Implementing agencies shall require project sponsors to commit to best management practices (BMPs) that would minimize or eliminate existing sources of polluted runoff during both construction and operational phases of the project. Implementing agencies shall require projects to comply with design guidelines established in the Bay Area Stormwater Management Agencies Association’s Using Start at the Source to Comply with Design Development Standards and the California Stormwater Quality Association’s California Stormwater Best Management Practice Handbook for New Development and Redevelopment to minimize both increases in the volume and rate of stormwater runoff, and the amount of pollutants entering the storm drain system. For the purposes of this mitigation, less than significant means consistent with federal, state, and local regulations and laws related to water quality or stormwater management.</p>	<i>Less than Significant with Mitigation</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project- and site-specific considerations include, but are not limited to:</p> <p>Construction</p> <ul style="list-style-type: none"> • Limiting excavation and grading activities to the dry season (April 15 to October 15) to the extent possible in order to reduce the chance of severe erosion from intense rainfall and surface runoff, as well as the potential for soil saturation in swale areas. • Regulating stormwater runoff from the construction area through a stormwater management/erosion control plan that may include temporary on-site silt traps and/or basins with multiple discharge points to natural drainages and energy dissipaters if excavation occurs during the rainy season. This control plan should include requirements to cover stockpiles of loose material, divert runoff away from exposed soil material, locate and operate sediment basin/traps to minimize the amount of offsite sediment transport, and removing any trapped sediment from the basin/ trap for placement at a suitable location on-site, away from concentrated flows, or removal to an approved disposal site. • Providing temporary erosion control measures until perennial revegetation or landscaping is established and can minimize discharge of sediment into receiving waterways. • Providing erosion protection on all exposed soils either by revegetation or placement of impervious surfaces after completion of grading. Revegetation shall be facilitated by mulching, hydroseeding, or other methods and initiated as soon as possible after completion of grading and prior to the onset of the rainy season (by October 15). 	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Using permanent revegetation/landscaping, emphasizing drought-tolerant perennial ground coverings, shrubs, and trees. • Ensuring BMPs are in place and operational prior to the onset of major earthwork on the site. The construction phase facilities shall be maintained regularly and cleared of accumulated sediment as necessary. • Storing hazardous materials such as fuels and solvents used on the construction sites in covered containers and protected from rainfall, runoff, and vandalism. A stockpile of spill cleanup materials shall be readily available at all construction sites. Employees shall be trained in spill prevention and cleanup, and individuals should be designated as responsible for prevention and cleanup activities. 	
		<p>Operation</p> <ul style="list-style-type: none"> • Designing drainage of roadway and parking lot runoff, wherever possible to run through grass median strips which are contoured to provide adequate storage capacity and to provide overland flow, detention, and infiltration before runoff reaches culverts, or into detention basins. Facilities such as oil and sediment separators or absorbent filter systems should be designed and installed within the storm drainage system to provide filtration of stormwater prior to discharge and reduce water quality impacts whenever feasible. • Implementing an erosion control and revegetation program designed to allow re-establishment of native vegetation on slopes in undeveloped areas as part of the long-term sediment control plan. • Using alternate discharge options to protect sensitive fish and wildlife populations in areas where habitat for fish and other wildlife would be threatened by transportation facility discharge. 	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>Maintenance activities over the life of the project shall include use of heavy-duty sweepers, with disposal of collected debris in sanitary landfills to effectively reduce annual pollutant loads where appropriate. Catch basins and storm drains shall be cleaned and maintained on a regular basis.</p> <ul style="list-style-type: none"> Using Integrated Pest Management techniques (methods that minimize the use of potentially hazardous chemicals for landscape pest control and vineyard operations) in landscaped areas. The handling, storage, and application of potentially hazardous chemicals shall take place in accordance with all applicable laws and regulations. 	
2.8-2	<p>Implementation of the proposed Plan may substantially interfere with or reduce rates of groundwater recharge due to the increased amount of impervious surfaces, such that there would be a net deficit in aquifer volume or a lowering of the groundwater table.</p>	<p>None required.</p>	<p><i>Less than Significant</i></p>
2.8-3	<p>Implementation of the proposed Plan may increase erosion by altering the existing drainage patterns of a site, contributing to sediment loads of streams and drainage facilities, and thereby affecting water quality.</p>	<p>Implement Mitigation Measure 2.8(a)</p>	<p><i>Less than Significant with Mitigation</i></p>
2.8-4	<p>Implementation of the proposed Plan may increase non-point pollution of stormwater runoff due to litter, fallout from airborne particulate emissions, or discharges of vehicle residues, including petroleum hydrocarbons and metals that would impact the quality of receiving waters.</p>	<p>Implement Mitigation Measure 2.8(a)</p>	<p><i>Less than Significant with Mitigation</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
2.8-5	Implementation of the proposed Plan may increase non-point-source pollution of stormwater runoff from construction sites due to discharges of sediment, chemicals, and wastes to nearby storm drains and creeks.	Implement Mitigation Measure 2.8(a)	<i>Less than Significant with Mitigation</i>
2.8-6	Implementation of the proposed Plan may increase rates and amounts of runoff due to additional impervious surfaces, higher runoff values for cut-and-fill slopes, or alterations to drainage systems that could cause potential flood hazards and effects on water quality.	Implement Mitigation Measure 2.8(a)	<i>Less than Significant with Mitigation</i>
2.8-7	Implementation of the proposed Plan may place within a 100-year flood hazard area structures which would impede or redirect flows.	2.8(b) To reduce the impact of flood hazards, implementing agencies shall conduct or require project-specific hydrology studies for projects proposed to be constructed within floodplains to demonstrate compliance with Executive Order 11988, the National Flood Insurance Program, National Flood Insurance Act, Caltrans Highway Design Manual, Cobey-Alquist Floodplain Management Act, as well as any further Federal Emergency Management Agency (FEMA) or State requirements that are adopted at the local level. These studies shall identify project design features or mitigation measures that reduce impacts to either floodplains or flood flows to a less than significant level such as requiring minimum elevations for finished first floors, typically at least one foot above the 100-year base flood elevation, where feasible based on project- and site-specific considerations. For the purposes of this mitigation, less than significant means consistent with these federal, State, and local regulations and laws related to development in the floodplain. Local jurisdictions shall, to the extent feasible, appropriate, and consistent with local policies, prevent development in flood hazard areas that do not have demonstrable protections.	<i>Less than Significant with Mitigation</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
2.8-8	Implementation of the proposed Plan may expose people to a significant risk of loss, injury, or death involving flooding (including flooding as a result of the failure of a levee or dam), seiche, tsunami, or mudflow.	None required.	<i>Less than Significant</i>
Biological Resources			
2.9-1a	Implementation of the proposed Plan could have a 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.	<p>2.9(a) Implementing agencies shall require project sponsors to prepare biological resources assessments for specific projects proposed in areas containing, or likely to contain, habitat for special-status plants and wildlife. The assessment shall be conducted by qualified professionals pursuant to adopted protocols and agency guidelines. Where the biological resources assessment establishes that mitigation is required to avoid direct and indirect adverse effects on special-status plant and wildlife species, mitigation shall be developed consistent with the requirements of CEQA, USFWS, and CDFW regulations and guidelines, in addition to requirements of any applicable and adopted HCP/NCCP or other applicable plans developed to protect species or habitat. Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • In support of CEQA, NEPA, CDFW and USFWS permitting processes for individual Plan Bay Area projects, biological surveys shall be conducted as part of the environmental review process to determine the presence and extent of sensitive habitats and/or species in the project vicinity. Surveys shall follow established methods and shall be undertaken at times when the subject species is most likely to be identified. In cases where impacts to State- or federal-listed plant or wildlife species are possible, formal protocol-level surveys may be required on a species-by-species basis to determine the local distribution of these species. Consultation with the USFWS and/or CDFW shall 	<i>Significant and Unavoidable</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>be conducted early in the planning process at an informal level for projects that could adversely affect federal or State candidate, threatened, or endangered species to determine the need for further consultation or permitting actions. Projects shall obtain incidental take authorization from the permitting agencies as required prior to project implementation.</p> <ul style="list-style-type: none"> • Project designs shall be reconfigured, whenever practicable, to avoid special-status species and sensitive habitats. Projects shall minimize ground disturbances and construction footprints near sensitive areas to the extent practicable. • Where habitat avoidance is infeasible, compensatory mitigation shall be implemented through preservation, restoration, or creation of special-status wildlife habitat. Loss of habitat shall be mitigated at an agency approved mitigation bank or through individual mitigation sites as approved by USFWS and/or CDFW. Compensatory mitigation ratios shall be negotiated with the permitting agencies. Mitigation sites shall be monitored for a minimum of five consecutive years after mitigation implementation or until the mitigation is considered to be successful. All mitigation areas shall be preserved in perpetuity through either fee ownership or a conservation easement held by a qualified conservation organization or agency, establishment of a preserve management plan, and guaranteed long-term funding for site preservation through the establishment of a management endowment. • Project activities in the vicinity of sensitive resources shall be completed during the period that best avoids disturbance to plant and wildlife species present (e.g., May 15 to October 15 near salmonid habitat and vernal pools) to the extent feasible. 	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Individual projects shall minimize the use of in-water construction methods in areas that support sensitive aquatic species, especially when listed species could be present. • In the event that equipment needs to operate in any watercourse with flowing or standing water, a qualified biological resource monitor shall be present at all times to alert construction crews to the possible presence of California red-legged frog, nesting birds, salmonids, or other aquatic species at risk during construction operations. • If project activities involve pile driving or vibratory hammering in or near water, interim hydroacoustic threshold criteria for fish shall be adopted as set forth by the Interagency Fisheries Hydroacoustic Working Group, as well as other avoidance methods to reduce the adverse effects of construction to sensitive fish, piscivorous birds, and marine mammal species. • Construction shall not occur during the breeding season near riparian habitat, freshwater marshlands, and salt marsh habitats that support nesting bird species protected under the Endangered Species Act, Migratory Bird Treaty Act, or California Fish and Game Code (e.g., yellow warbler, tricolored blackbird, California clapper rail, etc.). • A qualified biologist shall locate and fence off sensitive resources before construction activities begin and, where required, shall inspect areas to ensure that barrier fencing, stakes, and setback buffers are maintained during construction. • For work sites located adjacent to special-status plant or wildlife populations, a biological resource education program shall be provided for construction crews and contractors (primarily crew and construction foremen) before construction activities begin. 	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Biological monitoring shall be particularly targeted for areas near identified habitat for federal- and state-listed species, and a “no take” approach shall be taken whenever feasible during construction near special-status plant and wildlife species. • Efforts shall be made to minimize the negative effects of light and noise on listed and sensitive wildlife. • Compliance with existing local regulations and policies, including applicable HCP/NCCPs, that exceed or reasonably replace any of the above measures protective of special-status species. 	
2.9-1b	Implementation of the proposed Plan could have substantial adverse impacts on designated critical habitat for federally listed plant and wildlife species.	<p>2.9(b) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project- and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Informal consultation with the USFWS and/or NMFS shall be conducted early in the environmental review process to determine the need for further mitigation, consultation, or permitting actions. Formal consultation is required for any project with a federal nexus. • Project designs shall be reconfigured to avoid or minimize adverse effects on the primary constituent elements of designated critical habitats when they are present in a project vicinity. • Compliance with existing local regulations and policies, including applicable HCP/NCCPs, that exceed or reasonably replace any of the above measures protective of critical habitat. <p>Additionally, implementation of Mitigation Measure 2.9(a), above, which includes an initial biological resource assessment and, if</p>	<i>Significant and Unavoidable</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
2.9-1c	Implementation of the proposed Plan could result in construction activities that could 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.	<p>necessary, compensatory mitigation for loss of habitat, is expected to reduce impacts on critical habitat.</p> <p>2.9(c) Implementing agencies shall require project sponsors to conduct a pre-construction breeding bird surveys for specific projects proposed in areas containing, or likely to contain, habitat for nesting birds. The survey shall be conducted by appropriately trained professionals pursuant to adopted protocols agency guidelines. Where a breeding bird survey establishes that mitigation is required to avoid direct and indirect adverse effects on nesting raptors and other protected birds, mitigation will be developed consistent with the requirements of CEQA, USFWS, and CDFW regulations and guidelines, in addition to requirements of any applicable and adopted HCP/NCCP or other applicable plans developed to protect species or habitat. Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Perform preconstruction surveys not more than two weeks prior to initiating vegetation removal and/or construction activities during the breeding season (i.e., February 1 through August 31). • Establish a no-disturbance buffer zone around active nests during the breeding season until the young have fledged and are self-sufficient, when no further mitigation would be required. Typically, the size of individual buffers ranges from a minimum of 250 feet for raptors to a minimum of 50 feet for other birds but can be adjusted based on an evaluation of the site by a qualified biologist in cooperation with the USFWS and/or CDFW. • Provide buffers around nests that are established by birds after construction starts. These birds are assumed to be habituated to and tolerant of construction disturbance. However, direct take of nests, eggs, and nestlings is still prohibited and a buffer must be 	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>established to avoid nest destruction. If construction ceases for a period of more than two weeks, or vegetation removal is required after a period of more than two weeks has elapsed from the preconstruction surveys, then new nesting bird surveys must be conducted.</p> <ul style="list-style-type: none"> Comply with existing local regulations and policies, including applicable HCP/NCCPs, that exceed or reasonably replace any of the above measures protective of nesting birds. 	
2.9-2	<p>Implementation of the proposed Plan could have a 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.</p>	<p>2.9(d) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> Implementing agencies shall require project sponsors to prepare biological resource assessments for specific projects proposed in areas containing, or likely to contain, jurisdictional waters and/or other sensitive or special-status communities. The assessment shall be conducted by qualified professionals in accordance with agency guidelines and standards. The assessment shall identify specific mitigation measures for any impact that exceeds significant impact thresholds and said measures shall be implemented. Mitigation measures shall be consistent with the requirements of CEQA and wetland permitting agencies, and/or follow an adopted HCP/NCCP or other applicable plans promulgated to protect jurisdictional waters or other sensitive habitats. In keeping with the “no net loss” policy for wetlands and other waters, project designs shall be configured, whenever possible, to avoid wetlands and other waters and avoid disturbances to wetlands and riparian corridors in order to preserve both the habitat and the overall ecological functions of these areas. 	<p><i>Significant and Unavoidable</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>Projects shall minimize ground disturbances and construction footprints near such areas to the extent practicable.</p> <ul style="list-style-type: none"> • Where avoidance of jurisdictional waters is not feasible, project sponsors shall minimize fill and the use of in-water construction methods, and only place fill with express permit approval from the appropriate resources agencies (e.g., Corps, RWQCB, CDFW, BCDC, and CCC) and in accordance with applicable existing regulations, such as the Clean Water Act or local stream protection ordinances. • Project sponsors shall arrange for compensatory mitigation in the form of mitigation bank credits, on-site or off-site enhancement of existing waters or wetland creation in accordance with applicable existing regulations and subject to approval by the Corps, RWQCB, CDFW, BCDC, and CCC. If compensatory mitigation is required by the implementing agency, the project sponsor shall develop a restoration and monitoring plan that describes how compensatory mitigation will be achieved, implemented, maintained, and monitored. At a minimum, the restoration and monitoring plan shall include clear goals and objectives, success criteria, specifics on restoration/creation/enhancement (plant palette, soils, irrigation, etc.), specific monitoring periods and reporting guidelines, and a maintenance plan. The following minimum performance standards (or other standards as required by the permitting agencies) shall apply to any wetland compensatory mitigation: <ul style="list-style-type: none"> – Compensation shall be provided at a <i>minimum</i> 1:1 ratio for restoration and preservation, but shall in all cases be consistent with mitigation ratios set forth in locally applicable plans (e.g., general plans, HCP/NCCPs, etc.), or in project-specific permitting documentation. Compensatory mitigation may be a combination of onsite restoration/creation/enhancement, offsite restoration, 	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>preservation and/or enhancement, or purchase of mitigation credits. Compensatory mitigation may also be achieved through Regional Advance Mitigation Planning (RAMP) banking, as deemed appropriate by the permitting agencies.</p> <ul style="list-style-type: none"> – In general, any compensatory mitigation shall be monitored for a minimum of five years and will be considered successful when at least 75 percent cover (or other percent cover considered appropriate for the vegetation type) of installed vegetation has become successfully established. • In accordance with CDFW guidelines and other instruments protective of sensitive or special-status natural communities, project sponsors shall avoid and minimize impacts on sensitive natural communities when designing and permitting projects. Where applicable, projects shall conform to the provisions of special area management or restoration plans, such as the Suisun Marsh Protection Plan or the East Contra Costa County HCP, which outline specific measures to protect sensitive vegetation communities. • If any portion of a special-status natural community is permanently removed or temporarily disturbed, the project sponsor shall compensate for the loss. If such mitigation is required by the implementing agency, the project sponsor shall develop a restoration and monitoring plan that describes how compensatory mitigation will be achieved, implemented, maintained, and monitored. At a minimum, the restoration and monitoring plan shall include clear goals and objectives, success criteria, specifics on restoration/creation/enhancement (plant palette, soils, irrigation, etc.), specific monitoring periods and reporting guidelines, and a maintenance plan. The following minimum performance standards (or other standards as required by the permitting agencies) shall apply to any compensatory mitigation for special-status natural communities: 	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> – Compensation shall be provided at a <i>minimum</i> 1:1 ratio for restoration and preservation, but shall in all cases be consistent with mitigation ratios set forth in locally applicable plans (e.g., general plans, HCP/NCCPs, etc.) or in project-specific permitting documentation. Compensatory mitigation may be a combination of onsite restoration/creation/enhancement, offsite restoration, preservation and/or enhancement, or purchase of mitigation credits. Compensatory mitigation may also be achieved through Regional Advance Mitigation Planning (RAMP) banking, as deemed appropriate by the permitting agencies. – In general, any compensatory mitigation shall be monitored for a minimum of five years and will be considered successful when at least 75 percent cover (or other percent cover considered appropriate for the vegetation type) of installed vegetation has become successfully established. • Compliance with existing local regulations and policies, including applicable HCP/NCCPs. that exceed or reasonably replace any of the above measures protective of jurisdictional wetlands or special-status natural communities. 	
2.9-3	Implementation of the proposed Plan could 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.	2.9(e) Mitigation measures to reduce impacts on wildlife corridors that shall be required by implementing agencies where feasible based on project- and site- specific considerations include, but are not limited to the following. Implementing agencies shall require project sponsors to prepare detailed analyses for specific projects affecting ECA lands within their sphere of influence to determine what wildlife species may use these areas and what habitats those species require. Projects that would not affect ECA lands but that are located within or adjacent to open lands, including wildlands and agricultural lands, shall also assess whether or not significant wildlife corridors are present, what wildlife species may use them, and what	<i>Significant and Unavoidable</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>habitat those species require. The assessment shall be conducted by qualified professionals and according to any applicable agency standards. Mitigation shall be consistent with the requirements of CEQA and/or follow an adopted HCP/NCCP or other relevant plans developed to protect species and their habitat, including migratory linkages.</p> <p>Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project- and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Constructing wildlife friendly overpasses and culverts; • Fencing major transportation corridors in the vicinity of identified wildlife corridors; • Using wildlife friendly fences that allow larger wildlife such as deer to get over, and smaller wildlife to go under; • Limiting wildland conversions in identified wildlife corridors; and • Retaining wildlife friendly vegetation in and around developments. • Compliance with existing local regulations and policies, including applicable HCP/NCCPs. that exceed or reasonably replace any of the above measures protective of jurisdictional wetlands or special-status natural communities. 	
2.9-4	<p>Implementation of the proposed Plan could conflict with adopted local conservation policies, such as a tree protection ordinance, or resource protection and conservation plans, such as a Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other adopted local, regional, or state habitat</p>	<p>2.9(f) Implementing agencies shall require project sponsors to prepare biological resources assessments for specific projects proposed in areas containing, or likely to contain, protected trees or other locally protected biological resources. The assessment shall be conducted by qualified professionals in accordance with adopted protocols, and standards in the industry. Mitigation shall be consistent with the requirements of CEQA and/or follow applicable ordinances or plans developed to protect trees or other locally</p>	<p><i>Less than Significant with Mitigation</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
	conservation plan.	<p>significant biological resources. Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Mitigation shall be implemented when significance thresholds are exceeded. Mitigation shall be consistent with the requirements of CEQA and/or follow applicable ordinances or plans developed to protect trees or other locally significant biological resources. • Implementing agencies shall design projects such that they avoid and minimize direct and indirect impacts to protected trees and other locally protected resources where feasible. • At a minimum, qualifying protected trees (or other resources) shall be replaced at 1:1, or as otherwise required by the local ordinance or plan, in locally approved mitigation sites. • As part of project-level environmental review, implementing agencies shall ensure that projects comply with the most recent general plans, policies, and ordinances, and conservation plans. Review of these documents and compliance with their requirements shall be demonstrated in project-level environmental documentation. <p>2.9(g) During the design and CEQA review of individual projects under Plan Bay Area, implementing agencies and project sponsors shall modify project designs to ensure the maximum feasible level of consistency with the policies in adopted HCPs, NCCPs, or other approved local, regional, or state conservation plans, in areas where such plans are applicable. These measures apply to projects covered by the plans in question (i.e., projects assessed during plan environmental review), as well as non-covered projects within the Plan area. Mitigation measures that shall be considered by</p>	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • If the project results in impacts on covered species habitat, or other habitat protected under the plan, the project sponsor shall coordinate with USFWS, CDFW, and the appropriate local agency to provide full compensation of acreage and preserve function. Projects shall follow adopted procedures to process an amendment to the conservation plan(s) if necessary. In addition, all habitat based mitigation required by the conservation plans shall be provided at ratios or quantities specified in the plans. • Project design and implementation shall minimize impacts on covered species through implementation of Mitigation Measures 2.9(a), 2.9(b), 2.9(c), 2.9(d), and 2.9(e). • Avoidance, minimization, and mitigation measures for covered species, consistent with adopted HCP and/or NCCPs, shall also be implemented as specified during project-specific environmental review and permitting. Avoidance and minimization measures to covered species and their habitats shall include adherence to land use adjacency guidelines as outlined in adopted HCP and/or NCCPs. <p>2.9(h) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. Implementing agencies and project sponsors whose projects are located within the Coastal Zone or within BCDC jurisdiction shall carefully review the applicable local coastal program or San Francisco Bay Plan for potential conflicts, and involve the California Coastal Commission or BCDC as early as possible in the project-level EIR process.</p>	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
Visual Resources			
2.10-1	Implementation of the proposed Plan could 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.	<p>2.10(a) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Reduce the visibility of construction staging areas by fencing and screening these areas with low contrast materials consistent with the surrounding environment, and by revegetating graded slopes and exposed earth surfaces at the earliest opportunity. • Site or design projects to minimize their intrusion into important viewsheds. • Use see-through safety barrier designs (e.g. railings rather than walls) when feasible. • Develop interchanges and transit lines at the grade of the surrounding land to limit view blockage wherever possible. • Design landscaping along highway corridors in rural and open space areas to add significant natural elements and visual interest to soften the hard edged, linear travel experience that would otherwise occur. • Identify, preserve, and enhance scenic vistas to and from hillside areas and other visual resources. • Comply with existing local regulations and policies that exceed or reasonably replace any of the above measures that protect visual resources. 	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>
2.10-2	Implementation of the proposed Plan could affect visual resources by substantially damaging scenic resources (such as trees, rock outcroppings, and historic buildings) that would	<p>2.10(b) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p>	<p><i>Significant and Unavoidable</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
	alter the appearance of or from state- or county-designated or eligible scenic highways.	<ul style="list-style-type: none"> • Project sponsors and implementing agencies shall complete design studies for projects in designated or eligible State Scenic Highway corridors. Implementing agencies shall consider the “complete” highway system and design projects to minimize impacts on the quality of the views or visual experience that originally qualified the highway for scenic designation. • Contouring the edges of major cut and fill slopes to provide a more natural looking finished profile that is appropriate to the surrounding context, using natural shapes, textures, colors, and scale to minimize contrasts between the project and surrounding areas. • Complying with existing local regulations and policies that exceed or reasonably replace measures that protect visual resources where feasible based on project- and site-specific considerations • Implementation of Mitigation Measure 2.10(a) shall also be considered to reduce impacts on scenic highways. 	
2.10-3	Implementation of the proposed Plan could affect visual resources by creating significant contrasts with the scale, form, line, color, and/or overall visual character of the existing community.	<p>2.10(c) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project- and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Designing projects to minimize contrasts in scale and massing between the project and surrounding natural forms and development. • Requiring that the scale, massing, and design of new development provide appropriate transitions in building height, bulk, and architectural style that are sensitive to the physical and visual character of surrounding areas. 	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
2.10-4	Implementation of the proposed Plan could 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.	<ul style="list-style-type: none"> • Contouring the edges of major cut and fill slopes to provide a finished profile that is appropriate to the surrounding context, using shapes, textures, colors, and scale to minimize contrasts between the project and surrounding areas. • Ensuring that new development in or adjacent to existing communities is compatible in scale and character with the surrounding area by: <ul style="list-style-type: none"> – Promoting a transition in scale and architecture character between new buildings and established neighborhoods; and – Requiring pedestrian circulation and vehicular routes to be well integrated. • Complying with existing local regulations and policies that exceed or reasonably replace any of the above measures that reduce visual contrasts. <p>Implementation of Mitigation Measure 2.10(a) shall also be considered to reduce impacts on visual resources created by significant contrasts in community visual character.</p> <p>2.10(d) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Ensuring that new development in or adjacent to rural or historic areas is compatible in scale and character with the surrounding area by: <ul style="list-style-type: none"> – Promoting a transition in scale and architecture character between new buildings and established neighborhoods; and – Requiring pedestrian circulation and vehicular routes to be well integrated. 	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Using soundwall construction and design methods that account for visual impacts as follows: <ul style="list-style-type: none"> – Use transparent panels to preserve views where soundwalls would block views from residences. – Use landscaped earth berm or a combination wall and berm to minimize the apparent soundwall height. – Construct soundwalls of materials whose color and texture complements the surrounding landscape and development. – Design soundwalls to increase visual interest, reduce apparent height, and be visually compatible with the surrounding area. – Landscape the soundwalls with plants that screen the soundwall, preferably with either native vegetation or landscaping that complements the dominant landscaping of surrounding areas. • Complying with existing local regulations and policies that exceed or reasonably replace any of the above measures that reduce visual impacts on rural and historic areas. 	
2.10-5	Implementation of the proposed Plan could adversely affect visual resources by creating new substantial sources of light and glare.	<p>2.10(e) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Designing projects to minimize light and glare from lights, buildings, and roadways facilities. • Minimizing and controlling glare from transportation projects through the adoption of project design features that reduce glare. These features include: <ul style="list-style-type: none"> – Planting trees along transportation corridors to reduce glare from the sun; 	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> – Landscaping off-street parking areas, loading areas, and service areas; and – Shielding transportation lighting fixtures to minimize off-site light trespass. • Minimizing and controlling glare from land use and transportation projects through the adoption of project design features that reduce glare. These features include: <ul style="list-style-type: none"> – Limiting the use of reflective materials, such as metal; – Using non-reflective material, such as paint, vegetative screening, matte finish coatings, and masonry; – Screening parking areas by using vegetation or trees; and – Using low-reflective glass. • Imposing lighting standards that ensure that minimum safety and security needs are addressed and minimize light trespass and glare associated with land use development. These standards include the following: <ul style="list-style-type: none"> – Minimizing incidental spillover of light onto adjacent private properties and undeveloped open space; – Directing luminaries away from habitat and open space areas adjacent to the project site; – Installing luminaries that provide good color rendering and natural light qualities; and – Minimizing the potential for back scatter into the nighttime sky and for incidental spillover of light onto adjacent private properties and undeveloped open space. 	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
2.10-6	Implementation of the proposed Plan could 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.	<ul style="list-style-type: none"> • Complying with existing local regulations and policies that exceed or reasonably replace any of the above measures that reduce light and glare impacts. <p>2.10(f) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. Implementing agencies shall require project sponsors to conduct shadow studies for buildings and roadway facilities to identify and implement development strategies for reducing the impact of shadows on public open space. Study considerations shall include, but are not limited to, the placement, massing, and height of structures, surrounding land uses, time of day and seasonal variation, and reflectivity of materials. Study recommendations for reducing shadow impacts shall be incorporated into the project design as feasible based on project-and site-specific considerations. Further, implementing agencies shall require project sponsors to comply with existing local regulations and policies that exceed or reasonably replace the above measure that reduces shadow impacts where feasible based on project- and site-specific considerations.</p>	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>
Cultural Resources			
2.11-1	The proposed Plan could have the potential to cause a substantial adverse change in the significance of a historic resource such that the significance of the resource would be materially impaired.	<p>2.11(a) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Realign or redesign projects to avoid impacts on known historic resources where possible. • Requiring an assessment by a qualified professional of structures greater than 45 years in age within the area of potential effect to 	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>determine their eligibility for recognition under State, federal, or local historic preservation criteria.</p> <ul style="list-style-type: none"> • When a project has been identified as potentially affecting a historic resource, a historical resources inventory should be conducted by a qualified architectural historian. The study should comply with CEQA Guidelines section 15064.5(b), and, if federal funding or permits are required, with section 106 of the National Historic Preservation Act (NHPA) of 1966 (16 U.S.C. § 470 et seq.). Study recommendations shall be implemented. • If avoidance of a significant architectural/built environment resource is not feasible, additional mitigation options include, but are not limited to, specific design plans for historic districts, or plans for alteration or adaptive re-use of a historical resource that follows the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitation, Restoring, and Reconstructing Historic Buildings. • Complying with existing local regulations and policies that exceed or reasonably replace any of the above measures that protect historic resources. 	
2.11-2	The proposed Plan could have the potential to cause a substantial adverse change in the significance of a unique archaeological resource.	<p>2.11(b) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Pursuant to Government Code Sections 65351 and 65352, in-person consultation shall be conducted with Native American tribes and individuals with cultural affiliations where the project is proposed to determine the potential for, or existence of, cultural resources, including cemeteries and sacred places, prior to project design and implementation stages. 	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Prior to construction activities, project sponsors shall retain a qualified archaeologist to conduct a record search at the appropriate Information Center of the California Archaeological Inventory to determine whether the project area has been previously surveyed and whether resources were identified. When recommended by the Information Center, project sponsors shall retain a qualified archaeologist to conduct archaeological surveys prior to construction activities. • Preparation of a research design and testing plan should be developed in advance of implementation of the construction project, in order to efficiently facilitate the avoidance of cultural sites throughout the development process. • If record searches and field surveys indicate that the project is located in an area rich with archaeological resources, project sponsors should retain a qualified archaeologist to monitor any subsurface operations, including but not limited to grading, excavation, trenching, or removal of existing features of the subject property. • Written assessments should be prepared by a qualified tribal representative of sites or corridors with no identified cultural resources but which still have a moderate to high potential for containing tribal cultural resources. • Upon “late discovery” of prehistoric archaeological resources during construction, project sponsors shall consult with the Native American tribe as well as with the “Most-Likely-Descendant” as designated by the Native American Heritage Commission pursuant to PRC 5097. • Preservation in place is the preferred manner of mitigating impacts on archeological sites because it maintains the relationship between artifacts and the archeological context, and 	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
2.11-3	The proposed Plan could have the potential to destroy, directly or indirectly, a unique paleontological resource or site or unique geologic feature.	<p>it may also avoid conflict with religious or cultural values of groups associated with the site. This may be achieved through incorporation within parks, green-space, or other open space by re-designing project using open space or undeveloped lands. This may also be achieved by following procedures for capping the site underneath a paved area. When avoiding and preserving in place are infeasible based on project- and site-specific considerations, a data recovery plan may be prepared according to CEQA Section 15126.4. A data recovery plan consists of: the documentation and removal of the archeological deposit from a project site in a manner consistent with professional (and regulatory) standards; the subsequent inventorying, cataloguing, analysis, identification, dating, and interpretation of the artifacts; and the production of a report of findings.</p> <ul style="list-style-type: none"> • Complying with existing local regulations and policies that exceed or reasonably replace any of the above measures that protect archaeological resources. <p>2.11(c) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Prior to construction activities, project sponsors should retain a qualified paleontologist to conduct a record search using an appropriate database, such as the UC Berkeley Museum of Paleontology to determine whether the project area has been previously surveyed and whether resources were identified. As warranted, project sponsors should retain a qualified paleontologist to conduct paleontological surveys prior to construction activities. • Preparation of a research design and testing plan should be developed in advance of implementation of the construction 	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>project, in order to efficiently facilitate the avoidance of cultural sites throughout the development process.</p> <ul style="list-style-type: none"> • If record searches and field surveys indicate that the project is located in an area rich with paleontological, and/or geological resources, project sponsors should retain a qualified paleontologist to monitor any subsurface operations, including but not limited to grading, excavation, trenching, or removal of existing features of the subject property. • Complying with existing local regulations and policies that exceed or reasonably replace any of the above measures that protect paleontological or geologic resources. 	
2.11-4	The proposed Plan could have the potential to disturb human remains, including those interred outside formal cemeteries.	<p>2.11(d) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project- and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Under Section 7050.5 of the California Health and Safety Code, as part of project oversight of individual projects, project sponsors can and should, in the event of discovery or recognition of any human remains during construction or excavation activities associated with the project, in any location other than a dedicated cemetery, cease further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the coroner of the county in which the remains are discovered has been informed and has determined that no investigation of the cause of death is required. • Under California Public Resources Code 5097.98, if any discovered remains are of Native American origin: <ul style="list-style-type: none"> – The coroner shall contact the Native American Heritage Commission in order to ascertain the proper descendants 	<i>Less than Significant with Mitigation</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>from the deceased individual. The coroner should make a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods. This may include obtaining a qualified archaeologist or team of archaeologists to properly excavate the human remains; or</p> <ul style="list-style-type: none"> – If the Native American Heritage Commission is unable to identify a descendant, or the descendant failed to make a recommendation within 24 hours after being notified by the commission, the landowner or their authorized representative shall obtain a Native American monitor, and an archaeologist, if recommended by the Native American monitor, and rebury the Native American human remains and any associated grave goods, with appropriate dignity, on the property and in a location that is not subject to further subsurface disturbance where the following conditions occur: <ul style="list-style-type: none"> – The Native American Heritage Commission is unable to identify a descendent; – The descendant identified fails to make a recommendation; or – The landowner or their authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner. <p>For the purposes of this mitigation, less than significant means consistent with federal, state, and local regulations and laws related to human remains.</p>	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
Public Utilities and Facilities			
2.12-1	The proposed Plan could result in insufficient water supplies from existing entitlements and resources to serve expected development.	<p>2.12(a) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Implementing water conservation measures which result in reduced demand for potable water. This could include reducing the use of potable water for landscape irrigation (such as through drought-tolerant plantings, water-efficient irrigation systems, the capture and use of rainwater) and the use of water-conserving fixtures (such as dual-flush toilets, waterless urinals, reduced flow faucets). • Coordinating with the water provider to identify an appropriate water consumption budget for the size and type of project, and designing and operating the project accordingly. • Using reclaimed water for non-potable uses, especially landscape irrigation. This strategy may require a project to be located in an area with existing reclaimed water conveyance infrastructure and excess reclaimed water capacity. If a location is planned for future reclaimed water service, projects should install dual plumbing systems in anticipation of future use. Large developments could treat wastewater onsite to tertiary standards and use it for non-potable uses onsite. • Complying with existing local regulations and policies that exceed or reasonably replace any of the above measures that reduce demand for potable water. <p>2.12(b) MTC shall require the construction phase of transportation projects to connect to reclaimed water distribution systems for non-potable water needs, when feasible based on project- and site-specific considerations.</p>	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
2.12-2	The proposed Plan could result in inadequate wastewater treatment capacity to serve new development.	<p>2.12(c) MTC shall require transportation projects with landscaping to use drought-resistant plantings or connect to reclaimed water distribution systems for irrigation and other non-potable water needs when available and feasible based on project- and site-specific considerations.</p>	<i>Significant and Unavoidable</i>
		<p>2.12(d) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Undertaking environmental assessments of land use plans and developments to determine whether sufficient wastewater treatment capacity exists for a proposed project. These environmental assessments must ensure that the proposed development can be served by its existing or planned treatment capacity, and that the applicable NPDES permit does not include a Cease and Desist Order or any limitations on existing or future treatment capacity. If adequate capacity does not exist, the implementing agency must either adopt mitigation measures or consider not proceeding with the project as proposed. • Complying with existing local regulations and policies that exceed or reasonably replace the above measure in a manner that reduces impacts on wastewater treatment capacity. <p>Implementing agencies shall also require compliance with Mitigation Measure 2.12(a), and MTC shall require implementation of Mitigation Measures 2.12(b), and/or 2.12(c) listed under Impact 2.12-1, as feasible based on project- and site-specific considerations, which will help reduce water usage and, subsequently, wastewater flows.</p>	<p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>
		<p>Transportation projects could only cause impacts on wastewater treatment capacity in the case of excess stormwater runoff into a</p>	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
2.12-3	Development under the proposed Plan could require and result in the construction of new or expanded stormwater drainage facilities, which could cause significant environmental impacts.	<p>combined wastewater/stormwater conveyance system. Therefore, mitigation of stormwater drainage system capacity impacts will also mitigate wastewater treatment capacity impacts. Mitigation for stormwater runoff into wastewater systems from transportation projects is discussed under Impact 2.12-3; mitigation measures 2.12(f) and 2.12(g) will mitigate these impacts.</p> <p>2.12(e) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Complying with all existing applicable federal and State regulations, including Provision C.3 of the EPA’s Interpretive Policy Memorandum on Reapplication Requirements for Municipal Separate Storm Sewer Systems, NPDES permit requirements, the submission of and adherence to a Storm Water Pollution Prevention Plan, Water Quality Control Policy for Siting, Design, Operation, and Maintenance of onsite Wastewater Treatment Systems, and/or other relevant current State Water Resource Control Board policy adopted for the purpose of reducing stormwater drainage impacts. • For projects less than one acre in size, reducing stormwater runoff caused by construction by implementing stormwater control best practices, based on those required for a Storm Water Pollution Prevention Plan. • To the extent possible, siting or orienting the project to use existing stormwater drainage capacity. • Constructing permeable surfaces, such as stormwater detention facilities, playing fields, landscaping, or alternative surfaces (vegetated roofs, pervious paving). 	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Modeling and implementing a stormwater management plan or site design that prevents the post-development peak discharge rate and quantity from exceeding pre-development rates. • Capturing rainwater for on-site re-use, such as for landscape irrigation or inside non-potable uses such as toilet flushing. • Capturing and infiltrating stormwater runoff on site with rain gardens, vegetated swales, constructed wetlands, etc. • Complying with existing local regulations and policies that exceed or reasonably replace any of the above measures in reducing impacts on stormwater drainage facilities. <p>2.12(f) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. Transportation projects shall incorporate stormwater control, retention, and infiltration features, such as detention basins, bioswales, vegetated median strips, and permeable paving, early into the design process to ensure that adequate acreage and elevation contours are planned. Implementing agencies shall require project sponsors to comply with existing local regulations and policies that exceed or reasonably replace measures that reduce stormwater drainage impacts.</p> <p>2.12(g) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. All transportation projects constructed, operated, or funded by MTC shall adhere to Caltrans’ Stormwater Management Plan, which includes best practices to reduce the volume of stormwater runoff and pollutants in the design, construction and maintenance of highway facilities.</p>	

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
2.12-4	Development under the proposed Plan could require and result in the construction of new or expanded water and wastewater treatment facilities, which could cause significant environmental impacts.	<p>2.12(h) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. For projects that could increase demand on water and wastewater treatment facilities, project sponsors shall coordinate with the relevant service provider to ensure that the existing public services and utilities could be able to handle the increase in demand. If the current infrastructure servicing the project site is found to be inadequate, infrastructure improvements for the appropriate public service or utility shall be identified in each project's CEQA documentation. The relevant public service provider or utility shall be responsible for undertaking project-level review as necessary to provide CEQA clearance for new facilities.</p> <p>All of the mitigation measures listed under Impact 2.12-1 and Impact 2.12-2 will help reduce water demand and wastewater generation, and subsequently help reduce the need for new or expanded water and wastewater treatment facilities. The mitigation measures listed under Impact 2.12-3 will also help mitigate the impact of additional stormwater runoff from land use and transportation projects on existing wastewater treatment facilities.</p>	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>
2.12-5	Development under the proposed Plan could exceed wastewater treatment requirements of the RWQCBs.	None required.	<i>Less than Significant</i>
2.12-6	The proposed Plan could result in insufficient landfill capacity to serve new development while complying with applicable regulations.	<p>2.12(i) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. Countywide Integrated Waste Management Plans and Source Reduction and Recycling Elements shall take the growth patterns projected by the proposed Plan into account in their evaluation of landfill disposal capacity and determination of strategies to implement to enhance capacity.</p>	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>2.12(j) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Providing an easily accessible area that is dedicated to the collection and storage of non-hazardous recycling materials, where feasible. • Maintaining or re-using existing building structures and materials during building renovations and redevelopment, where feasible. • Using salvaged, refurbished or reused materials, to help divert such items from landfills, where feasible. • Diverting construction waste from landfills, where feasible, through means such as: <ul style="list-style-type: none"> – The submission and implementation of a construction waste management plan that identifies materials to be diverted from disposal. – Establishing diversion targets, possibly with different targets for different types and scales of development. – Helping developments share information on available materials with one another, to aid in the transfer and use of salvaged materials. • Applying the specifications developed by the Construction Materials Recycling Association (CMRA) to assist contractors and developers in diverting materials from construction and demolition projects, where feasible.⁴ 	Significant with Mitigation

⁴ The CMRA specifications are available on the CalRecycle website at: www.calrecycle.ca.gov/conDemo/specs/CMRA.htm

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> Complying with existing local regulations and policies that exceed or reasonably replace any of the above measures in reducing impacts on landfills. 	
Hazards			
2.13-1	Implementation of the proposed Plan could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	<p>2.13(a) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. To reduce the impacts associated with the routine transit, use, or disposal of hazardous materials, implementing agencies shall require project sponsors to comply with the Resource Conservation and Recovery Act, Title 22 of the California Code of Regulations, California Hazardous Waste Control Law, Cal/EPA requirements, HAZMAT training requirements, and any local regulations such as city or county Hazardous Materials Management Plans regulating the generation, transportation, treatment, storage, and disposal of hazardous materials and waste. For the purposes of this mitigation, less than significant means consistent with federal, state, and local regulations and laws related to the transport, use, or disposal of hazardous materials.</p>	<i>Less than Significant with Mitigation</i>
2.13-2	Implementation of the proposed Plan may 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.	<p>2.13(b) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. To reduce the impacts associated with the release of hazardous materials into the environment, implementing agencies shall require project sponsors to comply with Senate Bill 1889, Accidental Release Prevention Law/California Accidental Release Prevention Program (CalARP) regulating the generation, transportation, treatment, storage, and disposal of hazardous materials and waste. In addition, project sponsors shall comply with United States Department of Transportation regulations regarding the transport of hazardous materials and</p>	<i>Less than Significant with Mitigation</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		wastes such that accidental upset conditions are minimized. For the purposes of this mitigation, less than significant means consistent with federal, state, and local regulations and laws related to upset and accident conditions involving the release of hazardous materials into the environment.	
2.13-3	Implementation of the proposed Plan could result in hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	2.13(c) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. To reduce the impacts associated with handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed schools, implementing agencies shall require project sponsors to comply with DTSC School Property Evaluation and Cleanup Division regulations regarding the cleanup of existing contamination at school sites and requirements for the location of new schools that would minimize potential exposure of hazardous emissions to students, staff, and visitors to existing and planned school sites. For the purposes of this mitigation, less than significant means consistent with federal, state, and local regulations and laws related to hazardous materials near schools.	<i>Less than Significant with Mitigation</i>
2.13-4	Implementation of the proposed Plan could result in projects 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, would create a significant hazard to the public or the environment.	2.13(d) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to: <ul style="list-style-type: none"> • Determining whether specific land use and transportation project sites are listed as a hazardous materials and/or waste site pursuant to Government Code Section 65962.5. • Requiring preparation of a Phase I ESA in accordance with the American Society for Testing and Materials’ ASTM E-1527-05 standards for any listed sites or sites with the potential of residual hazardous materials and/or waste as a result of location and/or prior uses. For work requiring any demolition or renovation, the 	<i>Significant and Unavoidable</i> <i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		<p>Phase I ESA shall make recommendations for any hazardous building materials survey work that shall be done.</p> <ul style="list-style-type: none"> • Implementing recommendations included in a Phase I ESA prepared for a site. • If a Phase I ESA indicates the presence or likely presence of contamination, the implementing agency shall require a Phase II ESA, and recommendations of the Phase II ESA shall be fully implemented. • For work requiring any demolition or renovation, the Phase I ESA shall make recommendations for any hazardous building materials survey work that shall be done. • Requiring construction contractors to prepare and implement soil management contingency plans which provide procedural guidance on the handling, notification, and protective measures to be taken in the event of encountering suspected contamination or naturally occurring asbestos. 	
2.13-5	<p>Implementation of the proposed Plan could result in a safety hazard for people residing or working in the planning area for projects located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport.</p>	<p>2.13(e) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. To reduce the impacts associated with people residing or working in the planning area for projects located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, implementing agencies shall require project sponsors to comply with any applicable Airport Land Use Compatibility Plan requirements as well as any Federal Aviation Administration (14 CFR Part 77) requirements. Projects shall not be approved by local agencies until project design plans have been reviewed and approved by the Airport Land Use Commission such that proposed projects would not adversely affect subject airport operations. For</p>	<p><i>Less than Significant with Mitigation</i></p>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		the purposes of this mitigation, less than significant means consistent with federal, state, and local regulations and laws related to development near a public airport.	
2.13-6	Implementation of the proposed Plan could result in a safety hazard for people residing or working in the planning area for projects within the vicinity of a private airstrip.	2.13(f) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. To reduce impacts associated with people residing or working in the planning area for projects within the vicinity of a private airstrip implementing agencies shall require project sponsors to comply with any applicable local land use regulations and federal aviation guidelines as well as any Federal Aviation Administration (14 CFR Part 77) requirements applicable to projects located within two miles of a private airstrip. Projects shall not be approved by local agencies until project design plans can demonstrate compliance with subject airstrip, local and federal aviation requirements. For the purposes of this mitigation, less than significant means consistent with federal, state, and local regulations and laws related to development near a private airstrip.	<i>Less than Significant with Mitigation</i>
2.13-7	Implementation of the proposed Plan could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	None required.	<i>Less than Significant</i>
2.13-8	Implementation of the proposed Plan could expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	2.13(g) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to the following. To reduce wildland fire impacts, implementing agencies shall require project sponsors to comply with safety measures that minimize the threat of fire as stated in the California Fire Code as well as compliance with Title 14 of the California Code of Regulations, Division 1.5 to minimize exposing people and structures to loss, injury, or death and damage. Projects	<i>Less than Significant with Mitigation</i>

TABLE ES-2: SUMMARY OF IMPACTS AND MITIGATION

#	Impact	Mitigation Measures	Significance After Mitigation
		shall not be approved by local agencies until project design plans can demonstrate compliance with fire safety requirements. For the purposes of this mitigation, less than significant means consistent with federal, state, and local regulations and laws related to wildfire hazards.	
Public Services and Recreation			
2.14-1	Implementation of the proposed Plan could 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.	<p>2.14(a) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Ensuring that adequate public services, and related infrastructure and utilities, will be available to meet or satisfy levels identified in the applicable local general plan or service master plan prior to approval of new development projects. • Complying with existing local regulations and policies that exceed or reasonably replace measures that reduce public service impacts. 	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>
2.14-2	Implementation of the proposed Plan could 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.	<p>2.14(b) Mitigation measures that shall be considered by implementing agencies and/or project sponsors where feasible based on project-and site-specific considerations include, but are not limited to:</p> <ul style="list-style-type: none"> • Ensuring that adequate parks and recreational facilities will be available to meet or satisfy levels identified in the applicable local general plan or service master plan prior to approval of new development. • Complying with existing local regulations and policies that exceed or reasonably replace measures that reduce impacts on recreational facilities. 	<p><i>Significant and Unavoidable</i></p> <p><i>*CEQA Streamlining Projects Under SB 375 That Implement All Feasible Mitigation Measures: Less than Significant with Mitigation</i></p>

This page intentionally left blank.

The Transportation Improvement Program (TIP)

The federally required Transportation Improvement Program (TIP) is a comprehensive listing of Bay Area surface transportation capital projects that receive federal funds or are subject to a federally required action or are regionally significant. The Metropolitan Transportation Commission (MTC), as the federally designated Metropolitan Planning Organization (MPO) for the nine-county San Francisco Bay Area Region, prepares and adopts the TIP at least once every six years. The TIP covers a six-year period and must be financially constrained by year, meaning that the amount of dollars committed to the projects (also referred as “programmed”) must not exceed the amount of dollars estimated to be available. The TIP must include a financial plan that demonstrates that programmed projects can be implemented. Adoption of the TIP must be accompanied by an evaluation and finding of air quality conformity. Federal regulations also require that the public be involved and be provided opportunity to comment prior to TIP approval.

Transit, highway, local roadway, bicycle and pedestrian investments are included in the TIP. Apart from some improvements to the region’s airports, seaports, and privately owned bus and rail facilities, all regionally significant transportation projects or projects requiring federal action are part of the TIP. All projects included in the MTC-prepared TIP must be consistent with the Regional Transportation Plan (RTP) for the Bay Area.

The 2013 TIP: Features and Highlights

- The 2013 TIP complies with the requirements under the current federal Transportation Act: Moving Ahead for Progress in the 21st Century (MAP-21). Congress approved MAP-21 in July 2012.
- The 2013 TIP includes approximately 880 transportation projects including several grouped listings or lump-sum entries for certain program categories, such as state highway maintenance, that include additional projects.
- The 2013 TIP covers six years of programming for federal fiscal years 2012-13 through 2017-18.
- The 2013 TIP includes federal, state, and local programming of projects totaling approximately \$17 billion during the six-year TIP Period.
- The 2013 TIP includes total project funding (including the funding prior to, within the TIP Period and after the six-year TIP period) totaling \$52 billion.

The 2013 TIP may be viewed online on the MTC Web site at: <http://www.mtc.ca.gov/funding/tip>.

As an added feature, individual project listings may also be viewed interactively with the latest information as the TIP is revised through MTC’s online (web based) Fund Management System (FMS) at http://www.mtc.ca.gov/funding/fms_intro.htm.



Some of the listed projects have been mapped to present the online reader with a visual location of the project. Those without access to the Internet may view a printed copy of the project listings at the MTC-ABAG Library in Oakland at 101 Eight Street, and at major public libraries in the Bay Area.

Plan Bay Area (RTP) and the TIP

The Draft Regional Transportation Plan (RTP), *Draft Plan Bay Area*, is the Bay Area's comprehensive roadmap to guide transportation investment over 28 years. The RTP establishes the financial foundation for how the region invests in our transportation system by identifying how much money is available to address critical transportation needs and sets the policy on how this funding is to be spent on transportation needs. The RTP is updated every four years to reflect new planning priorities and changing projections of growth and travel demand, based on a realistic forecast of future revenues. The program of projects in the RTP must also help protect regional air quality. *Draft Plan Bay Area* is available at the MTC-ABAG Library and online at <http://onebayarea.org/>

Sustainable Community Strategy (SCS)

The *Draft Plan Bay Area* is new and different from the previous RTP, because for the first time ever legislation calls upon MTC and ABAG to adopt a Sustainable Communities Strategy, which will coordinate land use and transportation in the regional transportation plan. Taken together, the land use patterns and transportation investments aim to reduce greenhouse gas emissions for cars and light-duty trucks in the nine-county region. The *Draft Plan Bay Area* addresses new requirements flowing from California's 2008 Senate Bill 375 (Steinberg), which calls on each of the state's 18 metropolitan areas to reduce greenhouse gas (GHG) emissions from cars and light trucks. This is important because the transportation sector represents about 40 percent of the GHG pollution that scientists say is contributing to climate change.

Draft Plan Bay Area also addresses the challenge of accommodating the Bay Area's future growth. Our population is expected to increase from about 7 million in 2011 to approximately 9 million in 2040. We need to make transportation, housing and land-use decisions now to sustain the Bay Area's high quality of life for current and future generations. The Sustainable Communities Strategy promotes compact, mixed-use commercial and residential development that is walkable and bikable and close to mass transit, jobs, schools, shopping, parks, recreation and other amenities.

In March 2011, MTC and ABAG took the first step in crafting the Sustainable Communities Strategy when they introduced their Initial Vision Scenario showing where and how the region might grow so as to be able to sustainably accommodate 2 million more residents by 2035. The land use distribution emphasizes growth in the 169 locally proposed Priority Development Areas (PDAs) along the region's core transit network by accommodating 100 percent of new growth within existing urban growth boundaries and urban limit lines. A key part of the PDA strategy is to move away from an unplanned "project by-project" approach to growth, toward the creation of complete communities that meet the needs of existing and new residents and workers. The land use distribution also emphasizes protection for the region's agricultural, scenic and natural resources areas, including Priority Conservation areas (PCAs). Priority Conservation Areas comprise over 100 regionally significant open spaces for which there exists broad consensus

for long-term protection, but which face nearer-term development pressures. The PCAs and PDAs complement one another: promoting compact development within PDAs takes development pressure off the region's open space and agricultural lands. If successful, the *Draft Plan Bay Area* will give people more transportation choices, create more livable communities and reduce the pollution that causes climate change. Also the plan looks towards protecting open space and other natural resources.

The vision for the *Draft Plan Bay Area* is rooted in the Three "E"s of Economy, Environment and Equity. The vision is to support a prosperous and globally competitive economy, provide for a healthy and safe environment, and produce equitable opportunities for all Bay Area residents to share in the benefits of a well-maintained, efficient, regional transportation system. The seven goals that the Commission adopted for the *Draft Plan Bay Area*, give more specific expression to region's commitment to the Three "E" principles. Goals include climate protection, adequate housing, healthy & safe communities, open space & agricultural preservation, equitable access, economic vitality, and transportation system effectiveness. The policies and investments in the *Draft Plan Bay Area* are designed to help achieve these goals and to advance the Three "E"s. A performance-based planning approach was used to help focus on measurable outcomes of potential investments and the degree to which they support policy goals. In January 2012, MTC completed the evaluation of certain projects proposed for inclusion in *Draft Plan Bay Area*. The performance analysis considered whether the projects supported the draft plan's performance targets and each project's level of cost-effectiveness. The resulting analysis, called the "Transportation Project Performance Assessment," together with public involvement held in winter 2012, helped inform the trade-offs discussion and development of the *Draft Plan Bay Area* Transportation Investment Strategy, which was released in April 2012. The draft transportation investment strategy was then combined with ABAG's "Jobs-Housing Connection Strategy" to create a Preferred Land Use and Transportation Investment Strategy for the *Draft Plan Bay Area*. The two agencies adopted the preferred strategy on May 17, 2012. The preferred strategy is being further evaluated as part of the Environmental Impact Report (EIR) required by the California Environmental Quality Act (CEQA).

Staff completed an investment analysis with a focus on low-income and minority populations (Appendix A-2). The key question asked in the investment analysis is: "Are low-income and minority populations sharing equitably in the TIP's financial investments?"

This analysis attempts to take a relatively conservative approach to assigning investments (or "benefit") to low-income households given some of the limitations of the analysis. The results suggest that according to several indices, the 2013 TIP invests greater public funding to the benefit of low-income and minority communities than their proportionate share of the region's population or trip-making as a whole.

- The analysis concluded in the aggregate that there is a relatively higher proportional investment in the 2013 TIP than either the proportionate share of trips taken by minority and low-income populations.
- In delving deeper into the investments by mode, one finds that the results are similar. For example, for transit, the results showed that for low-income populations, the share of investment (57 percent) was slightly higher than the share of trips (55 percent). The share of investment in minority transit trips (63 percent) is both slightly greater than the minority share of the total population and also slightly more than the share of transit trips made by minority populations (62 percent). For streets and road investments, these findings also hold true for the minority trips but not for the low-income drivers when

compared against the Vehicle Miles Traveled. However, in no case, do the results appear to demonstrate a systematic disbenefit to low-income or minority populations.

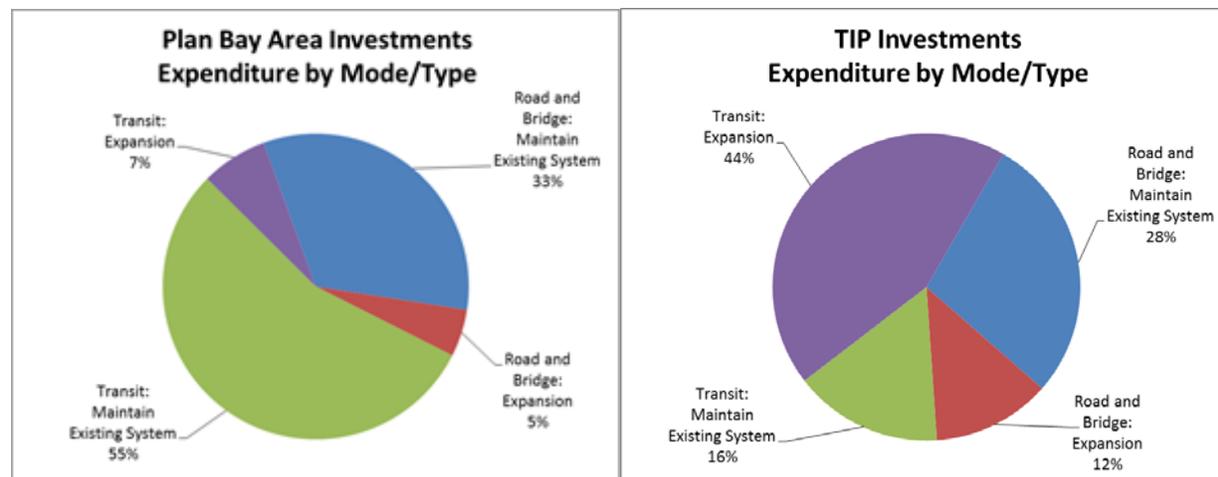
- The Title VI Analysis finds no disparate impact in the distribution of Federal and State funding for public transportation purposes between minority and non-minority populations or riders in the draft 2013 TIP.

The analysis is a companion to the TIP and will make more user-friendly investment data available to the public. Staff envisions the analysis will be dynamic and will evolve based on feedback from stakeholders going forward. In addition to enhancements to the low-income and minority population focused investment analysis, future analyses could look at different focus areas.

Investment Decisions

The *Draft Plan Bay Area* dedicates 88% of the \$289 billion in projected transportation revenues over the 28-year period to maintaining and managing the region’s current transportation network of transit, bridges, highways, and local streets and roads. As illustrated below, the other investment categories address expansion for transit; bridge, highway and complete streets at roughly 12%.

The policies of the *Draft Plan Bay Area*, the Bay Area’s draft regional transportation plan, favor maintenance and management of the existing transportation system as the first line need, by funding 90% of the transit operating and capital replacement costs for Bay Area transit providers and roughly 56% of the local streets and roads maintenance on the streets and road network in the Bay Area.



Investment Category	Plan Expenditures	TIP Expenditures
	YOES billions	YOES billions
Transit: Maintain Existing System	\$159	\$3
Road and Bridge: Maintain Existing System	\$94	\$5
Transit: Expansion	\$21	\$7
Road and Bridge: Expansion	\$15	\$2
Total	\$289	\$17

The *Draft Plan Bay Area* is available in its entirety on MTC's website at <http://onebayarea.org/regional-initiatives/plan-bay-area.html>

By comparison, the TIP covers a six-year period and includes \$17 billion in programming. For the TIP, the breakdown of expenditures is roughly:

- Maintenance of the Existing System - \$8 billion, or 44%
- System Expansion - \$9 billion, or 66%

The TIP is limited to projects and programs with a federal interest; locally-funded transit operations and maintenance, and local streets and roads maintenance are generally not included in the TIP.

A brief discussion of the three primary investment categories from the RTP and the more specific near-term funding strategies in the TIP follows. For more detail, the Investment Plan from the *Draft Plan Bay Area* can be found in Appendix A-40, "Financial Plan."

Maintenance and Management of the Existing System: This investment category includes rehabilitation and replacement of transit vehicles and facilities as well as the upkeep of freeways and local roadways. Also included is management of the system through system operations programs.

Some of the most significant projects that the region is currently undertaking to ensure adequate maintenance are the retrofit of the East Span of the Bay Bridge, the railcar replacement program for BART, and preventative maintenance for transit operators such as AC Transit and Santa Clara VTA (refer to "Projects in the 2013 TIP Over \$200 Million" later in this document).

The investment level for streets and roads in the 2013 TIP is projected to preserve pavement in the same "fair" condition as it is now. One of the main differences between the Draft TIP and the *Draft Plan Bay Area* is that much of the revenue for streets and roads rehabilitation is through gas tax subventions that are included in the long-range plan but are not required to be part of the TIP, because these projects are funded with local dollars. In terms of near-term programming, \$320 million of STP / CMAQ is being made available during the four-year period to the nine-bay area counties through the One Bay Area Grant Program. Local streets and road rehabilitation is one of the eligible project categories for the One Bay Area Grant Program. (See Appendix A-25 for information on the OBAG Program) Also, jurisdictions receiving One Bay Area grant funds are required to have complete streets policies in place either through a board resolution or a general plan that complies with the California Complete Streets Act of 2008 to ensure that the needs of non-motorists are considered during project development.

To address transit capital maintenance needs, the *Draft Plan Bay Area* investments will fund all bus, rail car and ferry vehicle replacements and 76 percent of other high-priority investment needs, such as rehabilitation of tracks, bridges and train control systems. An assessment of 10-year needs and revenues for MTCs Transit Capital Priority Program demonstrates that if programming for transit capital replacement and rehabilitation projects is constrained to match projected Federal Transit Administration formula funds from FY 2012-13 through FY 2022-23, needs in the middle of this period 2017-2019 will exceed revenues, when expenditures on major vehicle replacement projects for BART, Caltrain and other vehicle replacements peak. In

anticipation of these peak needs and to smooth out cash flow during this 10-year period, the Commission has already established an approach of creating reserves in years when revenues exceed high-priority needs to help address the shortfalls in years when peak needs exceed revenues. The Commission will also explore financing strategies to use future transit capital revenues to help meet near-term needs if needed. In addition, the Commission has directed \$150 million of STP funds to supplement FTA formula programs to support future major fleet replacements, fixed guideway rehabilitation and other high-scoring capital needs and to support implementation of TSP projects.

The Draft Plan includes various strategies to effectively manage the system leading to higher productivity and more capacity on the region's existing transportation infrastructure. During this six-year TIP period, the region has programmed funds to Lifeline Transportation Program projects; the Climate Initiatives Program; safety projects and security projects for Bay Area transit operators; regional operations program such as the 511 program, Transit Performance Initiative, regional rideshare, and transportation marketing, Priority Conservation Areas, freeway operations including the Freeway Performance Initiative, incident management, and regional signal timing and technical assistance. Roughly \$270 million of STP and CMAQ funds have been programmed in the 2013 TIP to support these activities. Additionally \$320 million of STP / CMAQ is being made available during the four-year period to the nine-bay area counties through the One Bay Area Grant program to select bicycle and pedestrian projects, and Transportation for Livable Communities (TLC) projects, which are eligible project categories.

Transit, Bridge, Highway and Complete Streets Expansion: This investment category targets investments to expand transportation facilities, where those projects yield high productivity. These investments include high occupancy/toll lanes, highway and rail expansions, transit oriented development policies, goods movement, rapid bus routes/express bus service, etc. All major transit expansions in the TIP are part of MTC Resolution 3434 (Appendix A-7, "Regional Transit Expansion Program"), which represents the region's consensus agreement on Bay Area transit expansion.

Major strategic expansion projects with the highest levels of programming in the 2013 TIP period include among others the following:

- BART extension from Warm Springs to Berryessa
- New Central Subway in San Francisco
- Transbay Terminal in San Francisco / Caltrain Downtown Extension – Phase 1
- BART Warm Springs Extension
- Sonoma Marin Area Rail Corridor
- Capitol Expressway LRT Extension

For the complete list of projects with total project cost greater than \$200 million in the 2013 TIP, refer to "Projects in the 2013 TIP Over \$200 Million" and "Grouped Listings in the 2013 TIP Over \$200 Million" later in this document.

As mentioned above, the impact of the TIP on regional air quality also must be evaluated. In the Bay Area, it is the responsibility of MTC to make an air quality conformity determination for the TIP in accordance with federal Clean Air Act requirements and Environmental Protection Agency (EPA) conformity regulations. The Draft Air Quality Conformity Determination for the 2013 TIP is attached as Appendix A-38.

Regional Transportation Plan (RTP) Consistency

Only projects consistent with the *Draft Regional Transportation Plan (RTP)*, *Draft Plan Bay Area*, were included in the 2013 TIP as required by federal law. This means that even fully funded projects were excluded from the 2013 TIP if they were inconsistent with the RTP. Projects are reviewed for consistency with the RTP, as they are submitted for various funding programs, and as they are amended into the TIP for the first time. Consistency also includes the requirement that project costs in the TIP do not exceed those in the RTP's funding constrained investment plan.

Congestion Management Process

Responding to requirements established through SAFETEA, MTC generally updates its congestion management process (CMP) approximately every two years. The approach of the CMP recognizes existing planning processes that form the foundation of the Bay Area region's efforts to improve mobility and manage congestion. The congestion management process for the Bay Area identifies congested areas and mobility issues through routine monitoring; identification, evaluation and selection of strategies to address congestion and mobility issues; and implementation of the selected strategies. The strategies include performance monitoring, county congestion management plans, short range transit plans, major corridor studies, the Transportation Improvement Program (TIP), and the Regional Transportation Plan (RTP) along with other planning activities. The CMP has a list of focus tasks (projects and studies arising from diverse, established activities addressing congestion management and mobility) and these tasks ultimately provide information on developing transportation investment priorities which feed back into the regional planning process and the programming of projects in the TIP. The most recent CMP was adopted in 2010 and is attached in Appendix A-47.

System Preservation, Operation, and Maintenance Costs

Both the draft TIP and the draft Plan need to take into account the estimated costs of maintaining and operating the total transportation system. The draft 2013 TIP is the programming document that implements the policies, strategies and projects contained in the *Draft Plan Bay Area* emphasizes maintaining and sustaining the existing transportation system. Firstly, projects which are directly programmed by the Commission are selected for a number of key programs developed to address various transportation needs expressly identified in the *Draft Plan Bay Area*. For example, the OneBayArea Grant program includes funding for project sponsors to use to address their system preservation. Also, FTA Formula funding programs (among other funding programs) address transit operators' maintenance needs. Secondly, funding for projects programmed to the region by entities other than MTC, such as the State, is included in the TIP. In particular the State Highway Operation and Protection Program (SHOPP) funds are incorporated into the TIP to meet the operation and maintenance requirements of the State highway system. Below are key programs in the TIP which address system preservation, operation, and maintenance of the transportation system:

- **State Highways: State Highway Operation and Protection Program (SHOPP):** The SHOPP is a program of projects administered by Caltrans designed to preserve and protect the existing State highway system. The California Department of Transportation is required to prepare a 10-year plan for the rehabilitation and reconstruction of all state

highways and bridges. The plan then becomes the basis for developing the SHOPP. SHOPP projects fall into six major categories: Collision Reduction, Bridge Preservation, Roadway Preservation, Roadside Preservation, Mobility and Emergency Response. Projects are approved for inclusion in the SHOPP on a statewide competitive basis, initiated by the Caltrans District Offices, with safety as the highest priority.

- **Local Streets and Roads:** Preservation costs for San Francisco Bay Area local roadway infrastructure (pavement, non-pavement and locally owned bridges) are determined using a process that incorporates pavement management programs and analysis completed by jurisdictions. The information on local street and road needs feeds into the Draft Regional Transportation Plan needs assessment and is a basis for making funds available for streets and roads preservation projects, which are programmed in the TIP. Refer to Appendix A-48 for more detailed information and Streets and Roads needs and analysis.
- **Transit Operations and Rehabilitation:** The TIP includes Financial Capacity Assessments for public transit agencies in the region, which assess the financial state of the transit operators in the region and initiatives being undertaken to maintain the existing capital plan and service operations. The assessments are included in Section 2 of the TIP document. Also, under the Transit Performance Initiative (TPI), MTC also created an incentive program to reward transit agencies that achieve ridership increases and productivity improvements, and has allocated funds to projects in the TIP on the basis of performance, thereby encouraging greater efficiencies and better service to the public.

TIP Development and Schedule

MTC develops the draft TIP in cooperation with the Bay Area Partnership and its constituent members including individual cities and counties, transit operators and other project sponsors. The Partnership consists of federal and state agencies, county Congestion Management Agencies (CMAs), public transit providers, and city and county public works representatives. The Board provides a forum for top managers of the region's transportation system to contribute to the policy-making and fund programming activities of MTC, and to improve coordination within the region. The Partnership, working through its committees and task forces, played a significant role in the selection of projects programmed in the 2013 TIP.

Central to developing the draft TIP is MTC's process for deciding how to invest "flexible" federal dollars, meaning those funds that can be used on a variety of transportation needs, be they local streets, bus replacements, rail extensions, a new freeway interchange or bicycle and pedestrian facilities. To develop a plan for spending funds for the federal Surface Transportation Program (STP) and Congestion Mitigation and Air Quality Improvement Program (CMAQ), MTC works closely with local partner agencies and its citizen-based Policy Advisory Council to develop regional priorities. The priorities stem from the long-range plan, the *Draft Plan Bay Area*.

Most of the projects in the 2013 TIP are carried over from the 2011 TIP. To decide which projects to carryover, MTC requested project sponsors of projects in the 2011 TIP to indicate which of their projects had been completed, were well underway or were still in planning or early

implementation stages. During the preliminary review of the draft TIP, project sponsors also were allowed to propose new projects to be included in the 2013 TIP. A list of all new projects was provided to the Air Quality Conformity Task Force (MTC's inter-agency consultation group for air quality purposes) prior to being added into the draft TIP. This list of new projects can be found in Appendix A-41.

Once the 2013 Draft TIP has been developed, it is then released for public review and comment. As part of the public review process, the draft document is sent to over 30 major libraries throughout the Bay Area as well as the MTC-ABAG library. Notices are also sent to an extensive list of interested parties including transportation agencies, other state, federal and tribal agencies and other transportation interests with the objective to continue the consultation process for transportation planning and investments in the Bay Area. The 2013 Draft TIP is also submitted through intergovernmental review, via the Association of Bay Area Government's Regional Clearinghouse, which notifies all local agencies in the Bay Area and receives their comments. The document can be downloaded from the MTC website (www.mtc.ca.gov). A public meeting is also conducted to solicit public comment. After the close of the public comment period, MTC's response to significant comments is compiled into Appendix A-51 in the Final 2013 TIP. This review process is conducted according to the Public Participation Plan (PPP) process adopted by MTC. The PPP is detailed in a later section.

After the public comment period, the 2013 TIP document is then presented to a standing committee of the Commission. After its review, the committee forwards the document to the full Commission for adoption. The draft 2013 TIP is sent to the Caltrans Office of Federal Programs for inclusion into the California Federal Statewide Transportation Improvement Program (FSTIP) or Statewide TIP. After a comment period and review and approval by Caltrans, the FSTIP is forwarded to the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) for their review and approval. Approval by FHWA/FTA constitutes the final approval of the TIP. The tentative 2013 TIP schedule is as follows:

- March 29, 2013: Draft 2013 TIP and Draft Air Quality Conformity Analysis of the Plan and Draft 2013 TIP released for public review and comment.

- April/May, 2013: Public hearings in the nine counties of the San Francisco Bay Area. Meeting dates and locations posted at www.onebayarea.org.

- May 3, 2013: End of public review and comment of Draft 2013 TIP and Draft conformity analysis of the Plan and 2013 TIP.

- June 12, 2013: MTC committee review of Draft TIP and Air Quality Conformity Analysis of the Plan and Draft 2013 TIP and referral to Commission

- July 24, 2013: Commission scheduled to approve final 2013 TIP and final conformity analysis of the Plan and 2013 TIP (anticipated date)

- August, 2013: 2013 TIP Approval by FHWA / FTA (anticipated date)

Public Participation Process

MTC is committed to a public involvement process that is transparent, proactive and provides comprehensive information, timely public notice, full public access to key decisions, and opportunities for continuing involvement. The process for updating and revising the Transportation Improvement Program (TIP) is directed by procedures contained in the MTC Public Participation Plan. MTC provides many methods to fulfill this commitment, as outlined in MTC's Public Participation Plan (PPP) Resolution No. 3821. The Public Participation can be downloaded from MTC's website at http://www.mtc.ca.gov/get_involved/participation_plan.htm, and is included in Appendix A-3.

Further, Federal transit law and joint Federal Highway Administration (FHWA)/Federal Transit Administration (FTA) planning regulations governing the metropolitan planning process require a locality to include the public and solicit comment when the locality develops its metropolitan long-range transportation plan and its metropolitan TIP. FTA has determined that when a recipient follows the procedures of the public involvement process outlined in the FHWA/FTA planning regulations, the recipient satisfies the public participation requirements associated with development of the Program of Projects (POP) that recipients of Section 5307 funds must meet. The TIP and the Public Participation Plan satisfy the public participation requirements for the POP. Public notices of public involvement activities and times established for public review and comment on the TIP state that they satisfy the POP requirements of the Section 5307 Program.

Public Participation Approach for the Transportation Improvement Program

MTC has consulted extensively with agencies and Tribal Nations affected by transportation decisions, in the preparation of the current *Draft Regional Transportation Plan, Draft Plan Bay Area*. For the 2013 TIP, this consultation was continued as follows:

- Project sponsors including the California Department of Transportation (Caltrans) local jurisdictions and transit operators: Project sponsors and their county Congestion Management Agencies (CMAs) reviewed and consulted with MTC on each of their respective projects in the TIP. Furthermore, through the Bay Area Partnership, these agencies are involved every step of the way in the establishment of MTC programs and the selection of project criteria and delivery of transportation projects contained in the TIP.
- MTC and other regional agency staffs meet periodically with the Tribal Nations in the region to consult with them on the development of the Regional Transportation Plan and related programming processes. For the development of the upcoming update of the RTP a Tribal Summit was held on March 20, 2012 (prior to release of the initial draft TIP), to discuss respective MTC and tribal roles in the development of transportation plans and programs in the Bay Area. The TIP guides were distributed at the Summit.
- Air Quality consultations on air quality issues occur through the Air Quality Conformity Task Force (including the BAAQMD as well as representatives of the US EPA, California Air Resources Board (ARB), Federal Highway Administration and Federal Transit Administration and state and local transportation agencies) which review the 2013 TIP and its air quality conformity analysis.

- Over 2000 Notices on the 2013 Draft TIP were mailed out along with instructions on how to access and comment on the 2013 Draft TIP on the MTC website. The mailing roster targeted the agencies involved in the preparation of the Transportation Plan including Tribal Nations. Additionally, state agencies and local agencies were consulted through the Intergovernmental Review Process (Association of Bay Area Government's Area-wide Clearinghouse)
- MTC has published an update to the Guide to the San Francisco Bay Area's 2013 TIP targeted to the public. The objective of the guide is to better explain what the TIP is in the context of a larger planning and project development process. Since the first edition two years ago, the Guide has been posted on the MTC website and distributed to the public at various workshops including the public hearing and other events. MTC also distributed the guide to state, local and federal resource agencies and tribal nations as part of our consultation on the development of the 2013 TIP. The updated Guide is included as Appendix A-37 and is available on MTC's website at http://www.mtc.ca.gov/funding/tip/DRAFT_2013/Guide_to_TIP.pdf.
- MTC's compliance with the California Environmental Quality Act (CEQA) for the Regional Transportation Plan also serves as the framework to consult, as appropriate, with federal, state and local resource agencies responsible for land use management, natural resources, environmental protections, conservation, and historic preservation. As part of the Draft RTP update, which is referred to as *Draft Plan Bay Area*, MTC, together with the Association of Bay Area Governments, hosted four agency and public scoping meetings for the *Draft Plan Bay Area* EIR in June 2012. At these scoping meetings, the development of the TIP was presented and connections with the RTP were highlighted.

TIP Period

The 2013 TIP covers a 6-year period from Federal Fiscal Years 2012-13 through 2017-18. All other funds are only shown for illustrative purposes. Estimated funds in future years (beyond the six years that comprise the 2013 TIP) and previously expended funds (shown as 'prior') are included for informational purposes. All projects included in the TIP must show the total project cost escalated to the year of expenditure. Projects may be revised as cost estimates are refined.

Financial Constraint

The TIP must be financially constrained, meaning that the amount of funding programmed must not exceed the amount of funding estimated to be reasonably available. In developing the 2013 TIP, MTC has taken into consideration the transportation funding revenues expected to be available during the six years of the TIP (Federal FY 2012-13 through FY 2017-18), and has found the 2013 TIP to be financially constrained by program and by year.

Additionally, this constraint requirement applies to each of the six program years and because the San Francisco Bay Area is an air quality non-attainment area, only projects with committed or reasonably available funded committed to the project may be programmed in the first two years of the TIP. MTC re-demonstrates fiscal constraint with every amendment to the TIP.

Fiscal constraint requirements encompass both the operation and maintenance of capital projects in the TIP and the estimated costs of maintaining and operating the transportation system as a whole. The framework of both MTC's current RTP and 2013 TIP meet this requirement.

The 2013 TIP is a compilation of mostly previously programmed projects, reflecting previous TIP programming actions by the Commission. Examples include the Regional Transportation Improvement Program (RTIP), federal transit formula grant projects (Section 5307 and 5309), Surface Transportation Projects (STP), Congestion Mitigation and Air Quality (CMAQ) and Transportation Enhancement (TE)/Transportation Alternatives (TA) Programs authorized by the extension of SAFETEA and enactment of MAP-21. The TIP also includes Toll Bridge projects and regionally significant local projects approved and funded by transportation agency partners and/or referenda. Examples here include the voter approved toll increase in the Bay Area, Regional Measure 2, and county sales tax measures.

The constrained 2013 TIP also includes available State funds, including Proposition 1B and State Transportation Improvement Program (STIP) funds, utilizing the latest fund estimates, and funding actions by the State.

MTC continuously monitors developments in funding programs and funding needs of transportation projects, as reflected by the TIP project listing. Any significant changes are reviewed by MTC and its transportation partners; and, if needed, MTC will take appropriate actions, such as a TIP revision, to maintain the financial constraint of the TIP. For the FSTIP financial constraint, please refer to Appendix A- 54.

Revisions to the TIP

From time to time circumstances dictate that changes be made to the TIP following its adoption. Federal regulations permit changes to the TIP if the procedures for doing so are consistent with federal requirements for TIP development and approval, and consistent with federal procedures for revisions to the Federal Statewide Transportation Improvement Program (FSTIP). MTC will consider such revisions when the circumstances prompting the change are compelling, and the change will not adversely affect air quality conformity or financial constraint findings of the TIP. All changes must be consistent with the regional transportation plan.

The TIP revision process is further outlined in the MTC TIP Revision Process and Procedures document included in Appendix A-46 and by the MTC Public Participation Plan, which is available in Appendix A-3.

Relationship of the TIP to Other Federal and State Transportation Programs

Federal Statewide Transportation Improvement Program

Just as each metropolitan region is required to develop a TIP, each state is required to develop a Federal Statewide Transportation Improvement Program (FSTIP) pursuant to federal

regulations. The FSTIP includes all projects with federal funds, those that require a federal action and regionally significant transportation projects throughout the state. In California, regional TIPs are included in the FSTIP without modification once approved by the relevant Metropolitan Planning Organization (MTC, in the case of the Bay Area) and after the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) make their required financial constraint and air quality findings. Projects must be in the FSTIP before funding authorities, such as FTA, FHWA, or the California Department of Transportation (Caltrans), can “obligate” funds (i.e., commit funds to contract) and therefore, before sponsors can actually spend any of these monies.

State Transportation Improvement Program

The California Transportation Commission (CTC) is required to biennially adopt, and submit to the Legislature and the Governor, a State Transportation Improvement Program (STIP). The STIP is a comprehensive listing of all major projects to be funded from specified state funding programs, including certain federal funds that flow directly to the state. As a result, many of the projects that are included in the STIP must eventually be included in the regional TIPs and the FSTIP as well.

The bulk (75 percent) of the STIP consists of spending programs developed at the regional level throughout California, called the Regional Transportation Improvement Programs (RTIP). The CTC releases a Fund Estimate informing each region how much money it can expect to receive from various sources. This estimate is guided by statutory requirements that direct how the funds are divided up throughout the state.

Caltrans proposes another element of the STIP for the CTC to adopt, known as the Interregional Transportation Improvement Program, or ITIP. The ITIP comprises the remaining 25 percent of STIP funding. It is intended to address transportation infrastructure needs that cross metropolitan boundaries and link the state’s transportation system; for example, intercity rail, interregional highways and the like.

Fund Sources Programmed in the TIP

The 2013 TIP programs transportation funding from a wide variety of sources. Several of the major sources from which funds are programmed are:

Federal Transit Administration (FTA) Programs

- Section 5307 Urbanized Area Formula
- Section 5309 Fixed Guideway Modernization
- Section 5309 Bus & Bus Facilities
- Capital Investment Grants (Section 5309 New Starts and Small Starts)
- Section 5337 State of Good Repair

- Section 5339 Bus & Bus Facilities
- Section 5310 Elderly and Disabled Program
- Section 5311 Non Urbanized Areas
- Section 5316 Job Access and Reverse Commute Program (JARC)
- Section 5317 New Freedom Program
- Federal Discretionary Programs (including Earmarks)

Federal Highway Administration (FHWA) Programs

- Surface Transportation Program (STP)
- Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- Transportation Alternatives Program (formerly known as Transportation Enhancements)
- Federal Discretionary Programs (including Earmarks)

State, Regional, and Local Programs

Not all state and local funds have to be programmed in the TIP. However, if these funds are used to match federal dollars described above, or if they are attached to projects that require federal approval or other formal federal action, or if the project funded is considered to be regionally significant, they must be included in the TIP. Such state and local fund sources can include the following:

- State Transportation Improvement Program (STIP), comprising the Regional Transportation Improvement Program (RTIP) and the Interregional Transportation Improvement Program (ITIP)
- Proposition 1B Bond Funds, approved by voters in 2006, which includes Corridor Mobility Improvement Account (CMIA), Trade Corridors Improvement Fund (TCIF), and Public Transportation Modernization, Improvement, and Service Enhancement Account (PTMISEA) funds;
- State Highway Operations and Protection Program (SHOPP);
- Transportation Development Act (TDA) & State Transit Assistance (STA) funds;
- Proceeds from county half-cent transportation sales taxes, and sales taxes for transit;
- Regional Measure 1 (RM 1), Regional Measure 2 (RM 2), and other bridge toll funds;

Various other funds programmed to regionally significant, locally funded projects.

Project Funding Selection

Development of Project Proposals

Ideas for projects emerge from a variety of planning efforts at the city, county, transit operator, and regional levels. Some of the major sources for projects are the county congestion management programs, countywide transportation plans, transit operator short-range transit plans or similar transit capital and service planning efforts, and the state highway planning process conducted by Caltrans. These efforts are then merged with the planning efforts of the Draft Regional Transportation Plan. When the project scope, schedule, and budget are fully developed, the project may then be proposed for funding.

Project sponsors (the agencies designated to implement the projects) are responsible for initiating requests for TIP programming, applying for the programmed funds, and carrying their projects to completion. In the Bay Area, the implementing agencies include public transit operators, Caltrans, MTC, the Bay Area Air Quality Management District, the Congestion Management Agencies, the nine Bay Area counties, several joint power authorities, and the individual cities within each county. Questions regarding specific details of projects listed in the TIP should be directed to the project sponsors.

Project Selection Processes

The process by which a project is selected for programming utilizing federal, state, and regional funds, depends on the type of project, and the specific fund source being sought. Once selected, the project is then eligible for inclusion in the TIP. Below is a listing of the major processes and MTC resolutions that describe the selection processes. The resolutions are available on the MTC Website at <http://www.mtc.ca.gov/funding/tip/> and as appendices to this document.

Coordinated Public Transit-Human Services Transportation Plan, Resolution No. 3787	Appendix A-6
Regional Transit Expansion Program, Resolution No. 3434.....	Appendix A-7
2012 Regional Transportation Improvement Program (RTIP), Resolution No. 4028.....	Appendix A-11
Transit Capital Priorities, Resolution No. 4072	Appendix A-13
Lifeline Transportation Program Guidelines, Resolution No. 4033.....	Appendix A-19
New Transportation Authorization Act - STP/CMAQ – Cycle 1, Resolution No. 3925	Appendix A-24
New Transportation Authorization Act - STP/CMAQ – Cycle 2, Resolution No. 4035	Appendix A-25
FTA Elderly and Persons with Disabilities Program, Resolution No. 4005.....	Appendix A-28
2012 and 2013 FTA Nonurbanized Area Formula Program of Projects, Resolution No. 4048.....	Appendix A-29
New Freedom Program, Resolution No. 4041	Appendix A-31

Air Quality Conformity

Transportation conformity is required under CAA section 176(c) (42 U.S.C. 7506(c)) to ensure that federally funded or approved highway and transit activities are consistent with (“conform to”) the purpose of the state air quality implementation plan (SIP). Conformity to the purpose of the SIP means that transportation activities will not cause or contribute to new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS or any interim milestones. EPA’s transportation conformity rule (40 CFR Parts 51 and 93) establishes the criteria and procedures for determining whether metropolitan transportation plans, TIPs, and federally supported highway and transit projects conform to the SIP. Transportation conformity applies to designated nonattainment and maintenance areas for transportation-related criteria pollutants: ozone, PM2.5, PM10, carbon monoxide, and nitrogen dioxide.

Using the latest planning assumptions, MTC conducted a new air quality conformity analysis for the 2013 TIP. The conformity determination was made under the motor vehicles emissions budget contained in the 2001 1-Hour Ozone Attainment Plan for the ozone precursors and the 2000 Carbon Monoxide Maintenance Plan. Conformity for the 2006 24-hour PM2.5 standard was demonstrated by conducting an interim conformity test. The Transportation Control Measures (TCMs) A through E in the approved 2001 Ozone Attainment Plan have been fully implemented. All information on the timely implementation of TCMs in the Conformity Report is still current. A copy of the analysis is included as Appendix A-38, to the TIP document and is available for public review at the MTC-ABAG Library, 101 Eighth Street, Oakland, and on the MTC Web Site at: <http://www.mtc.ca.gov/funding/tip/>

Grouped (Lump Sum) Listings in the TIP

Federal regulations 23 CFR 450.216 and 450.324 allow projects exempt from air quality conformity analysis listed under 40 CFR 93.126 & 127, Tables 2 & 3, to be grouped within the TIP. The process for including, or revising a project in the grouped (lump sum) listing, must follow the process and procedures (Appendix A-43) for state-managed grouped project listings, as agreed to by the California Federal Programming Group (CFPG), California Department of Transportation (Caltrans), Federal Highway Administration (FHWA) and Federal Transit Administration (FTA). It is intended that MTC’s Grouped (Lump Sum) Listings in the TIP follow, and adhere to the provisions of the State-Managed Grouped Project Listings Process.

The back-up lists for Grouped Listings in the TIP can also be accessed on the MTC’s TIP website: <http://www.mtc.ca.gov/funding/tip/2013/grouped.htm>.

Examples of some of the groupings include, but are not limited to the following:

- Highway Bridge Program (HBP)
- Highway Safety Improvement Program (HSIP)
- Safe Routes to School (SR2S)

Projects Implementing the Americans with Disabilities Act (ADA)

Consistent with Federal requirements, the 2013 TIP identifies projects implementing the Americans with Disabilities Act (ADA) required paratransit and key station plans.

The Americans with Disabilities Act (ADA) requires that public transportation services and facilities, including trains and rail stations, be accessible to persons with disabilities. Federal regulations allow each rail system operator to designate certain stations as key stations and to make these readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs. Most of the projects adopted in the key station plans have been implemented. Appendix A-44 lists some of the ongoing ADA implementation projects.

TIP Project Implementation

Federal regulations require that the TIP list major projects from the previous TIP that were implemented. Appendix A-42 is the list of all the 419 completed projects that were present in the 2011 TIP and have been archived in revisions to the 2011 TIP or are being archived during the 2013 TIP process. This list does not include the projects that are in the 2013 TIP with no funding within the 2013 TIP Period but are listed in the TIP for illustrative purposes nor does it include projects that were removed from the TIP when the funds were redirected or if the project did not go forward due to implementation issues.

In addition to meeting federal regulations, this also aids in monitoring the effectiveness of the programming process. The breakdown of the funds into federal, state, regional and local funds for the archived projects is as follows:

Fund Type	Funding within TIP Period (FY 2013 - FY 2018)		Total Funding (all Years)	
	(in million \$)	%	(in million \$)	%
Federal	\$3,074	30%	\$279	19%
State	\$4,979	49%	\$945	65%
Regional	\$307	3%	\$13	1%
Local	\$1,770	17%	\$217	15%
Total:	\$10,130	100%	\$1,454	100%

The distribution of funds between travel modes for the archived projects is as follows:

Mode	# of Projects		Funding within TIP Period (FY 2013 - FY 2018)		Total Funding (all Years)	
	#	%	(in million \$)	%	(in million \$)	%
Bicycle/ Pedestrian	64	15%	\$142	1%	\$31	2%
Local Road	174	42%	\$892	9%	\$223	15%
Regional	1	0%	\$2	0%	\$0	0%
State Highway	51	12%	\$7,004	69%	\$1,102	76%
Transit	129	31%	\$2,089	21%	\$98	7%
Grand Total	419	100%	\$10,130	100%	\$1,454	100%

Project Funding Delivery

The region has established funding deadlines for certain FHWA-administered funding, including Surface Transportation Program (STP) and Congestion Mitigation and Air Quality improvement (CMAQ) funds, to ensure timely project delivery against state and federal funding deadlines. The Region's Project Funding-Delivery Policy (MTC Resolution No. 3606, revised) establishes a standard policy for enforcing project funding deadlines and project substitutions for these, and other FHWA-administered funds. Projects selected to receive federal funds must have a demonstrated ability to use the funds within the established regional, state and federal funding deadlines. This criterion will be used for selecting projects for funding, and for placement of funding in a particular year of the TIP.

To further facilitate project delivery and ensure all federal funds in the region are meeting federal and state regulations and deadlines, recipients of FHWA-administered funding will need to identify a staff position that serves as the single point of contact for the implementation of all FHWA-administered funds within that agency. The person in this position must have sufficient knowledge and expertise in the federal-aid delivery process to coordinate issues and questions that may arise from project inception to project close-out. The agency is required to confirm the contact information for this position at the time of programming of funds in the federal TIP. This person will be expected to work closely with FHWA, Caltrans, MTC and the respective CMA on all issues related to federal funding for all FHWA-funded projects implemented by the recipient.

Project sponsors that continue to miss delivery milestones and funding deadlines for any federal funds are required to prepare and update a delivery status report on all projects with FHWA-administered funds they manage, and participate if requested in a consultation meeting with the county CMA, MTC and Caltrans prior to MTC approving future Cycle programming or including any funding revisions for the agency in the federal TIP. The purpose of the status report and consultation is to ensure the local public agency has the resources and technical capacity to deliver FHWA federal-aid projects, is fully aware of the required delivery deadlines, and has developed a delivery timeline that takes into consideration the requirements and lead-time of the federal-aid process within available resources.

MTC staff actively monitors and reports the obligation status of projects to the Bay Area Partnership. The Partnership working groups will monitor project delivery issues as they arise and make recommendations as necessary. Specific provisions of the Regional project Funding-Delivery Policy are contained within MTC Resolution No. 3606, which is included as Appendix A-35.

Fund Management

Federal funds are to be programmed in the TIP, up to the apportionment level for that fiscal year for that fund source, within the fiscal year in which the funds are to be obligated/transferred by the Federal Highway Administration (FHWA) or obligated by the Federal Transit Administration (FTA), or awarded in a FTA grant. This improves the overall management of federal Obligation Authority (OA) within the region and ensures that OA is available for projects that are programmed in a particular fiscal year.

Projects selected for federal funding must have a demonstrated ability to use the funds within the established federal, state and regional funding deadlines. This criterion will be used for selecting projects for funding, and for placement of funding in a particular year of the TIP.

Toll Credits

Section 1111(c) of the Transportation Equity Act for the 21st Century (TEA21), and 23 U.S.C., Section 1044 of ISTEA under Section 120(j) allows states to use certain toll revenue expenditures as a credit toward the non-federal matching share of programs authorized by Title 23 (except for the emergency relief programs) and for transit programs authorized by Chapter 53 of Title 49, referred as transportation Development credits.

Toll credits are not additional funds, but may be used in lieu of the non-federal match, bringing federal participation in a project to 100 percent of the project cost. The TIP must remain fiscally constrained when using toll credits in lieu of the non-federal match. Tracking of toll credits is performed through MTC's Fund Management System (FMS). Regional and State toll credits policies and procedures are included in Appendix A-20 and Appendix A-21.

Annual Listing of Obligated Projects

By federal requirement, MTC publishes at the end of each calendar year an annual listing of obligated projects, which is a record of project delivery for the previous year. The publication of this list is in response to 23 U.S.C. 134(j)(7)(B), 23 U.S.C. 135(g)(4)(B), 49 U.S.C. 5303(j)(7)(B), and 49 U.S.C. 5304(g)(4)(B) as revised by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA) that require "...an Annual Listing of projects, including investments in pedestrian walkways and bicycle transportation facilities, for which Federal funds have been obligated in the preceding year shall be published or otherwise made available by the cooperative effort of the State, transit operator, and metropolitan planning organization for public review. The listing shall be consistent with the funding categories identified in each metropolitan transportation improvement program (TIP)."

When a project reaches a point that funds will need to be expended, a request is sent from Caltrans to the Federal Department of Transportation requesting verification that there are funds available for reimbursement. This verification of fund availability "obligates" the funds for use as soon as expenditures occur. Fund obligations are a measure of the progress being made on a project. Projects for which funds have been obligated are not necessarily initiated or completed in the program year, and the amount of the obligation will not necessarily equal the total cost of the project. It is possible that unused funds may be credited back when not needed at the completion of a project phase resulting in a negative obligation. For Federal Transit Administration (FTA) projects, obligation occurs when the FTA grant is awarded.

The listing also is intended to increase the awareness of government spending on transportation projects to the public. Copies of this annual listing may be obtained from MTC's Web site: <http://www.mtc.ca.gov/funding/delivery/> or by calling MTC's Library at 510.817.5836. The list for the latest federal fiscal year is included in Appendix A-36.

Expedited Project Selection Process

Federal Regulations 23 Code of Federal Regulations (CFR) Part 450.330 allow for the movement of projects within the period of the TIP and FSTIP subject to procedures agreed to by partnering agencies, including the State and transit operators within the region. MTC, as the Metropolitan Planning Organization (MPO) for the nine-county San Francisco Bay Area Region has a process in place, as outlined below, developed in consultation with the region's transportation partners that permits the movement of projects consistent with the Expedited Project Selection Process outlined in Code of Federal Regulations (CFR) 450.330. The projects listed within the TIP have all been selected based on the regulations in 23 CFR Part 450. Federal Regulation 23 CFR Part 450.330 allows for the movement of projects within the TIP/FSTIP subject to procedures agreed to by the partnering parties. This procedure is outlined as follows.

All movements must be consistent with the Regional Transportation Plan (RTP), must not adversely affect the expeditious implementation of Transportation Control Measures (TCMs), must comply with the provisions of Title VI, must not negatively impact the planned delivery of other projects in the regional programs, and must not affect the conformity finding of the TIP.

For regional Surface Transportation Program (STP), Congestion Mitigation and Air Quality Improvement (CMAQ) funds, and other funds administered by the Federal Highways Administration (FHWA), MTC has developed a project funding delivery policy through extensive consultations with its regional transportation partners including the Bay Area transit operators, Congestion Management Agencies (CMA's), counties, FHWA, FTA and Caltrans. The *Regional Project Funding Delivery Policy (MTC Resolution No. 3606, revised)* details how project-funding deadlines and fund management requirements are enforced and how projects may be moved within the time period of the adopted TIP. The policy satisfies the requirement of the expedited project selection procedures as stated in CFR 450.330. The project funding delivery policy is also embedded in the TIP revision procedures, adopted along with the 2013 TIP. Although a TIP revision is not required at the time a project is moved, a revision may be processed following each federal fiscal year to reconcile the TIP for financial constraint purposes.

For projects within the State Transportation Improvement Program (STIP), MTC will move projects subject to amendment or allocation approval by the California Transportation Commission (CTC). Caltrans may move projects in the State Highway Operation Protection Program (SHOPP) document within the TIP/FSTIP period without revising the TIP, with notification to MTC.

Caltrans Division of Local Assistance has implemented a project selection process for the Highway Bridge Program (HBP), Highway Safety Improvement Program (HSIP), Safe Routes to School (SR2S) Program and other State-administered Local Assistance programs to produce the TIP listing of projects. This process was developed in cooperation with the implementing agencies, FHWA, the MPOs, and HBP Advisory Committee. Caltrans, MTC and the transit operators agree that the Caltrans Division of Local Assistance may move projects within the HBP, HSIP, SR2S and other State-administered Local Assistance programs within the TIP/FSTIP period without revising the TIP, with notification to MTC.

For FTA administered funds, projects may be moved within the period of the TIP/FSTIP at the request of the agency, as long as funding is available and the change does not negatively impact the delivery or availability of funds for other projects ready for obligation.

Implementing agencies wishing to advance projects using their own local funds until federal funds are available may request Advance Construction Authorization (ACA) from Caltrans, or pre-award authority from FTA to proceed with the project using local funds until OA and apportionment becomes available. In accordance with the Regional Project Funding Delivery Policy (MTC Resolution No, 3606), projects using ACA or FTA Grant Award Authority for FHWA-administered funds have priority for federal obligations when the availability of Obligation Authority is limited.

Primary Funding Programs

Descriptions and Availability Summary

The TIP must be financially constrained, meaning that the amount of funding programmed must not exceed the amount of funding estimated to be available. In developing the 2013 TIP, MTC has taken into consideration the transportation funding revenues expected to be available during the six years of the TIP (Federal FY 2012-13 through FY 2017-18), and has found the 2013 TIP to be financially constrained. The following is a financial summary of the primary fund sources within the six years of the TIP (all dollar amounts shown in thousands). For the FSTIP Financial Constraint, please refer to Appendix A-54.

Federal Funds

Federal Transit Administration Section 5307 –

Section 5307 funds are distributed to urbanized areas by the Federal Transit Administration (FTA) based on population and service factors for the five large urbanized areas of San Francisco-Oakland, San Jose, Concord, Antioch, and Santa Rosa, and population factors for the seven small urbanized areas of Vallejo, Fairfield, Vacaville, Napa, Livermore, Gilroy-Morgan Hill, and Petaluma. MTC prioritizes these funds for transit capital replacement projects such as revenue vehicles and fixed guideway, however, some funds are used for transit operations, system enhancements and job access and reverse commute projects. MTC adopted a preliminary Section 5307 program of projects for FY2012-13 and FY2013-14 in January 2013, and anticipates completing the next programming cycle in 2014. The number of years covered by the next program will be determined in 2014 based on the term of the next federal authorization.

FTA 5307	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Totals
Revenues	\$224,644	\$207,295	\$213,513	\$219,919	\$226,516	\$233,312	\$1,325,199
Programming	\$192,619	\$206,808	\$15,265	\$0	\$0	\$0	\$414,692
Balance	\$32,025	\$487	\$198,248	\$219,919	\$226,516	\$233,312	\$910,507

Federal Transit Administration Section 5309 Fixed Guideway Modernization (FG) – FTA Section 5309 FG formula funds were distributed based on fixed guideway service factors to large urbanized areas. MTC programs the FTA 5309 FG funds using the same criteria and schedule as the FTA Section 5307 funds. The eligibility for these funds, however, are limited to

the region's fixed guideway systems including rail, ferry, and buses operating on dedicated right-of-way as prescribed by Title 23. The Section 5309 FG program was replaced with the new Section 5337 State of Good Repair program by MAP-21 starting in FY2012-13 (see below). The funds available for programming in FY2012-13 are unprogrammed balances carried over from FY2011-12. In addition, several projects in the TIP include Section 5309 FG funds programmed in previous years.

FTA 5309 FG	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Totals
Revenues	\$1,684	\$0	\$0	\$0	\$0	\$0	\$1,684
Programming	\$1,684	\$0	\$0	\$0	\$0	\$0	\$1,684
Balance	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Federal Transit Administration Section 5309 Bus and Bus Facilities – The FTA Section 5309 Bus program funds were usually awarded by FTA directly to transit operators and other agencies through FTA's State of Good Repair, Bus Livability and other competitive, discretionary programs. The funds were also distributed by Congress through discretionary earmarks. Section 5309 Bus funds are used to fund bus and bus facility replacement, rehabilitation, expansion and enhancement projects. The Section 5309 Bus program was replaced with the new Section 5339 Bus and Bus Facilities formula program by MAP-21 starting in FY2012-13 (see below). Several projects in the TIP include Section 5309 Bus funds programmed in previous years.

Federal Transit Administration Section 5309 Capital Investment Grants – The FTA Capital Investment Grants program is a nationally competitive program and is used to fund new and expanded fixed guideway systems including bus rapid transit systems. This program includes the New Starts and Small Starts funding programs.

FTA 5309 CIG	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Totals
Revenues	\$151,182	\$154,077	\$854,291	\$520,721	TBD	TBD	\$1,680,271
Programming	\$151,182	\$154,077	\$854,291	\$520,721	\$0	\$0	\$1,680,271
Balance	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Federal Transit Administration Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities – FTA Section 5310 funds are available to states or local government authorities, private non-profit organizations, or operators of public transportation for capital and operating projects that serve the special needs of transit-dependent populations beyond traditional public transportation services and Americans with Disabilities Act (ADA) complementary paratransit services. Within California, Caltrans is the designated recipient for the small urbanized area (UA) and rural funds, and is currently in the process of identifying the designated recipient(s) for the large urbanized area (UA) funds. In the past, MTC has coordinated the local region's grant review process. The California Transportation Commission is expected to adopt the FY2012 program of projects in September 2013. MAP-21 requires that projects be derived from a Coordinated Public Transit-Human Services Transportation Plan ("Coordinated Plan"). The Bay Area's Coordinated Plan was adopted in March 2013.

FTA 5310	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Totals
Revenues	\$5,707	\$5,787	\$5,961	\$6,140	\$6,324	\$6,514	\$36,433
Programming	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance	\$5,707	\$5,787	\$5,961	\$6,140	\$6,324	\$6,514	36,433

Federal Transit Administration Section 5311 Non-Urbanized Formula Program – FTA Section 5311 funds are available to transit operators that provide transportation services in non-urbanized areas. MTC develops the funding priorities for the Bay Area in conjunction with

Caltrans who is the designated recipient and administers the funds. MTC programs the Bay Area's regional apportionment to transit operators according to each operator's non-urbanized area population and non-urbanized area route miles. Recipients are required to prioritize the replacement of capital equipment, with top priority for capital assets needed to maintain existing transit services. Recipients may use funds for operations if they document that the funds are not needed to maintain or replace capital equipment. Currently, funds are programmed through FY 2012-13.

FTA 5311	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Totals
Revenues	\$2,035	\$1,892	\$1,948	\$2,007	\$2,067	\$2,129	\$12,078
Programming	\$2,035	\$0	\$0	\$0	\$0	\$0	\$2,035
Balance	\$0	\$1,892	\$1,948	\$2,007	\$2,067	\$2,129	\$10,043

Federal Transit Administration Section 5316 Job Access and Reverse Commute Program (JARC) – FTA Section 5316 funds were available for job access projects designed to transport welfare recipients and other eligible low income individuals to and from jobs and other trips related to employment. MAP-21 eliminated Section 5316 as a separate program and combined its function and funds with the Section 5307 program (see above). Several projects in the TIP include Section 5316 funds programmed in previous years.

Federal Transit Administration Section 5317 New Freedom Program – FTA Section 5317 was created by SAFETEA to provide formula funding for new public transportation services and public transportation alternatives beyond those required by ADA to assist persons with disabilities. MAP-21 eliminated Section 5317 as a separate program and combined its function and funds with the Section 5310 program (see above). Several projects in the TIP include Section 5317 funds programmed in previous years.

Federal Transit Administration Section 5337 State of Good Repair Program – FTA Section 5337 is a new funding program created by MAP-21 to replace the Section 5309 Fixed Guideway Modernization program (see above). Eligible uses of the funds are similar: replacement and rehabilitation of fixed guideway assets including railcars, ferry vessels, buses operating in HOV lanes, and related infrastructure. The funds are distributed by FTA to the four large urbanized areas of San Francisco-Oakland, San Jose, Concord and Antioch based on service factors. MTC programs the Section 5337 funds using the same criteria and schedule as the FTA Section 5307 funds.

FTA 5337	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Totals
Revenues	\$168,551	\$170,886	\$176,013	\$181,293	\$186,732	\$192,334	\$1,075,809
Programming	\$142,128	\$148,041	\$0	\$0	\$0	\$0	\$290,169
Balance	\$26,423	\$22,845	\$176,013	\$181,293	\$186,732	\$192,334	\$785,640

Federal Transit Administration Section 5339 Bus and Bus Facilities Program – FTA Section 5339 is a new funding program created by MAP-21 to replace the Section 5309 Bus and Bus Facilities program (see above). Eligible uses of the funds are similar: bus and bus facility replacement, rehabilitation, expansion and enhancement projects. The funds are distributed to the 12 Bay Area urbanized areas by FTA based on population and service factors. MTC programs the Section 5339 funds using the same criteria and schedule as the FTA Section 5307 funds.

FTA 5339	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Totals
Revenues	\$12,689	\$12,864	\$13,249	\$13,647	\$14,056	\$14,478	\$80,983
Programming	\$12,512	\$12,387	\$0	\$0	\$0	\$0	\$24,899
Balance	\$177	\$477	\$13,249	\$13,647	\$14,056	\$14,478	\$56,084

Regional Surface Transportation Program (STP): Federal transportation legislation authorizes the State of California to distribute regional Surface Transportation Program (STP) funds to areas within the State based on urbanized population shares. MTC pools the STP funds coming to the San Francisco Bay Area with CMAQ funds to develop a comprehensive and multi-modal program, the OneBayArea Grant (OBAG) Program. MTC has established various programs, cooperatively developed with our transportation partners funded by STP/CMAQ. In general, the STP programs fund the Local Streets and Road rehabilitation Program, the Transit Capital Rehabilitation Shortfall Program, and regional operations programs; but in this TIP period counties can request that this funding also be used to fund programs such as the bicycle and pedestrian program and the Transportation for Livable Communities Program which were limited to CMAQ in the past. Programming is based on apportionments provided by Caltrans and the Federal Highway Administration (FHWA). STP apportionments for the SAFETEA extension period (FY 2008-09 through FY 2011-12) are fully programmed through the Cycle 2 STP/CMAQ OneBayArea Grant Program. While regional programs using STP are already included, the county selected projects will be programmed through a TIP amendment at a later date, once the counties have completed their project solicitation and selection.

STP	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Totals
Revenues	\$85,297	\$94,533	\$94,533	\$94,533	\$94,533	\$94,533	\$557,962
Programming	\$84,065	\$88,820	\$14,956	\$0	\$0	\$0	\$187,841
Balance	\$1,232	\$5,713	\$79,577	\$94,533	\$94,533	\$94,533	\$370,121

Congestion Mitigation and Air Quality Improvement Program (CMAQ): Federal transportation legislation authorizes the State of California to spend Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds in air basins that are not in compliance with federal air quality standards. California distributes CMAQ funds to the metropolitan planning organizations (MPOs) based on population and the severity of non-attainment of air quality standards in a particular air basin. MTC pools the CMAQ funds coming to the San Francisco Bay Area with STP funds to develop a comprehensive and multi-modal program, the OneBayArea Grant Program. The CMAQ program funds programs that address air quality strategies, such as the Transportation for Livable Communities (TLC), the Bicycle and Pedestrian Program, Safe Routes to School, Climate Initiatives program, Freeway Performance Initiative program, and Clipper^(SM) (universal fare card).

The amounts available for programming were provided by Caltrans and the Federal Highway Administration (FHWA). CMAQ apportionments for the SAFETEA extension period (FY 2008-09 through FY 2011-12) are fully programmed. While regional programs using CMAQ are already included, the county selected projects will be programmed through a TIP amendment at a later date, once the counties have completed their project solicitation and selection.

CMAQ	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Totals
Revenues	\$69,061	\$86,561	\$86,561	\$86,561	\$86,561	\$86,561	\$501,866
Programming	\$45,833	\$84,187	\$10,984	\$0	\$0	\$0	\$141,004
Balance	\$23,228	\$2,374	\$75,577	\$86,561	\$86,561	\$86,561	\$360,862

State Funds

SHOPP: The purpose of the State Highway Operation and Protection Program (SHOPP) is to adequately maintain and operate the State Highway System. In accordance with Government Code Section 14526.5 and Streets and Highways Code Section 164.6, the SHOPP is a four-year program of projects with the purpose of collision reduction, bridge preservation, roadway preservation, roadside preservation, mobility or facilities related to the state highway system. The most recent programming is the 2012 SHOPP covering the four-year period from fiscal years 2012-13 through 2015-16, and like the RTIP, the SHOPP is updated every two years. The amount available for programming, and the actual programmed amount reflect the SHOPP funding available to the region as approved by the California Transportation Commission (CTC).

SHOPP	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Totals
Revenues	\$447,788	\$353,602	\$359,872	\$162,042	TBD	TBD	\$1,323,304
Programming	\$447,788	\$353,602	\$359,872	\$162,042	\$0	\$0	\$1,323,304
Balance	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Regional Transportation Improvement Program (RTIP): The RTIP is a five-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the Transportation Improvement Fund (TIF) and other funding sources. The RTIP comprises 75% of the State Transportation Improvement Program (STIP). Working from a California Transportation Commission (CTC) estimate based on population and road miles, MTC submits the Bay Area's RTIP. The RTIP is updated every two years. The amount available for programming, and the actual programmed amount reflect the County Share balances and programming targets of the 2012 STIP Fund Estimate, and funding committed to the region as adopted by the California Transportation Commission (CTC) on March 29, 2012. The next STIP cycle will be in 2014.

RTIP	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Totals
Revenues	\$162,103	\$20,595	\$54,040	\$97,304	\$45,507	TBD	\$379,549
Programming	\$162,103	\$20,595	\$54,040	\$97,304	\$45,507	\$0	\$379,549
Balance	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Interregional Transportation Improvement Program (ITIP): The ITIP is a five-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the Transportation Improvement Fund (TIF) and other funding sources. The ITIP comprises 25% of the STIP and addresses transportation infrastructure needs that cross metropolitan boundaries and link the state's transportation system. The amount available for programming and the actual programmed amount reflect the STIP funding committed to the region adopted by the California Transportation Commission (CTC) on March 29, 2012. The next STIP cycle will be in 2014.

ITIP	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Totals
Revenues	\$760	\$22,284	\$65,610	\$0	\$0	TBD	\$88,654
Programming	\$760	\$22,284	\$59,773	\$0	\$0	\$0	\$82,817
Balance	\$0	\$0	\$5,837	\$0	\$0	\$0	\$5,837

Local/Regional Funding

Bridge Tolls (Tolls on state-owned bridges) – Bridge Toll funding is funding generated from tolls collected on the seven state-owned toll bridges in the bay area. The Bay Area Toll

Authority (BATA) administers and allocates base toll revenues from the seven state-owned bridges to Caltrans for the day-to-day operations, maintenance and administration of these bridges, as well as their capital improvement and rehabilitation. BATA also serves as a pass-through agency for Regional Measure 2 (RM2) bridge toll funds to specific voter-approved projects to relieve traffic congestion in bridge corridors, earthquake retrofit of state-owned toll bridges and other traffic mitigation projects related to retrofit work. Other bridge toll funding programs include Regional Measure 1 (RM1) projects to relieve traffic congestion in bridge corridors; AB 664 Net Bridge Toll Revenues, which MTC's policy is to use to match federally funded transit capital projects that relieve congestion on the San Francisco-Oakland Bay, San Mateo-Hayward and Dumbarton bridges; and Two Percent Bridge Toll revenues, which are derived from the transit element of RM1 and fund specific ferry and non-ferry capital projects.

Bridge Tolls	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Totals
Revenues	\$629,011	\$632,132	\$635,268	\$638,420	\$641,588	\$644,773	\$3,821,193
TIP Programming	\$376,826	\$286,070	\$97,174	\$98,213	\$23,828	\$34,358	\$916,467
Committed to Maintenance /Debt Service/ ETC	\$252,185	\$346,062	\$538,094	\$540,207	\$617,760	\$610,415	\$2,904,725
Balance	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Other Local Funding - Includes 1/2¢ Sales Tax for transit and other highway improvements in Alameda, San Francisco, Contra Costa, Santa Clara, San Mateo, Sonoma and Marin Counties. It does not include pending sales tax measure like the ones in Napa and Solano Counties. Other local funding also includes Garvee Bond financing by local agencies, gas tax subventions, and Transportation Development Act (TDA) Articles 4 and 8 (1/4-cent sales tax) for transit operating assistance and capital projects. Programming of local funding takes place as the discretion of local collecting agencies.

Other Local	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Totals
Revenues	\$3,416,505	\$3,493,090	\$3,620,040	\$3,738,563	\$3,861,727	\$3,988,720	\$22,118,645
Programming	\$1,190,351	\$1,585,140	\$1,484,852	\$732,648	\$439,571	\$1,340,058	\$6,772,621
Balance	\$2,226,154	\$1,907,950	\$2,135,188	\$3,005,915	\$3,422,156	\$2,648,662	\$15,346,024

Innovative Financing

Advance Construction – Advance Construction (AC) is a financial management tool used to advance projects to meet program goals and project delivery schedules using non-federal funds while remaining eligible for federal funding at a later date. Once federal funding becomes available AC projects may be converted in whole or in part to normal federal funding. The previously expended funds are then replenished by federal reimbursements.

Grant Anticipation Revenue Vehicles Bonds – The Grant Anticipation Revenue Vehicles (GARVEE) Bond program allows for the use of tax-exempt debt instrument financing mechanisms backed by federal appropriations to advance critical transportation infrastructure projects through the financing of right of way and construction costs. These projects must be eligible for GARVEE financing under State and Federal law and be designated for GARVEE financing by the California Transportation Commission (CTC). Additionally, projects financed in this way must have a completed project design and environmental clearance, including compliance with the National Environmental Protection Act (NEPA). In accordance with constitutional limitations, state funds may not be used for debt service payments on GARVEE

bonds. Future federal-aid funding is therefore used for debt repayment with state and local matching funds being used outside of debt service.

GARVEE	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Totals
Revenues	\$89,100	\$16,100	\$16,100	\$0	\$0	\$0	\$121,300
Programming	\$89,100	\$16,100	\$16,100	\$0	\$0	\$0	\$121,300
Balance	\$0	\$0	\$0	\$0	\$0	\$0	\$0

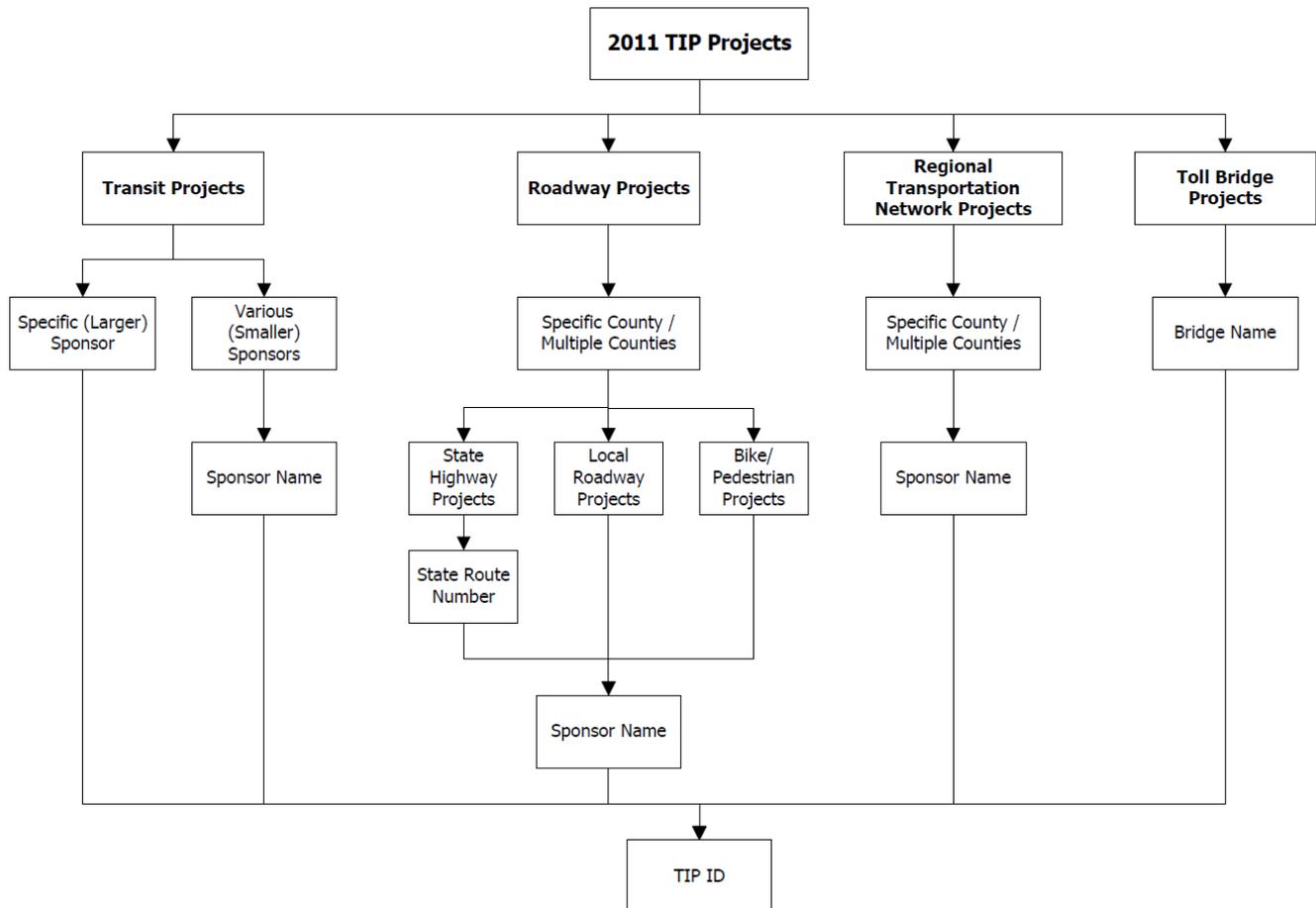
Transportation Infrastructure Finance and Innovation Act – The Transportation Infrastructure Finance and Innovation Act (TIFIA) provides federal credit assistance in financing surface transportation projects of regional and national significance costing a minimum of \$50 million or 33.3% of a state’s annual appropriation of federal-aid funds, whichever is less. Intelligent Traffic System (ITS) projects have a lower requirement of at least \$15 million. Federal credit assistance under TIFIA in the form of secured loans, loan guarantees, or standby lines of credit provides more flexibility in repayment terms and potentially more favorable interest rates than private capital market alternatives.

TIFIA	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Totals
Revenues	\$0	\$0	\$0	\$171,000	\$0	\$0	\$171,000
Programming	\$0	\$0	\$0	\$171,000	\$0	\$0	\$171,000
Balance	\$0	\$0	\$0	\$0	\$0	\$0	\$0

How to Read the Project Listings

Organization

Project listings provide a detailed description for each individual project listed in the 2013 TIP. The projects in the TIP are organized alphabetically by transit agency, followed by roadway projects listed alphabetically by county. Within each county's roadway project listing, the projects are sorted into state highway projects first (by route number), followed by local roadway projects sorted alphabetically by sponsor.



The 2013 TIP also includes indices at the beginning of Volume 1, Section 2 to assist in locating the page numbers on which each project is listed. The indices are organized by County and TIP ID.

Key to Format

The detailed listing contains the following information for each project:

Project Information		
#	Data Label	Definition
1	TIP ID	A unique number used to identify projects in the TIP. The first three characters indicate the location where the project is being implemented and refers to either a specific county, various counties, or the entire region. The next two digits indicate the version of the TIP where the project was first shown (i.e. for projects appearing for the first time in the 2013 TIP these digits will be 13). The final four digits indicate the order in which the project first appeared in the TIP.
2	County	The county in which the project is located. Projects may also be located in "Various" counties or they may be "Regional" projects.
3	System	The transportation system for which the project improvement is attributed: public transit, local streets and roads, State Highway System or Interstate System, Port and Freight Rail Facilities, Public Lands and Trails, Toll Bridges and Express Lanes (Tollway), and Regional projects.
4	RTP ID	The RTP ID refers to the unique parent project as described in MTC's Draft Regional Transportation Plan.
5	CTIPS ID	A unique number used to identify projects in the California Transportation Improvement Program System (CTIPS)
6	Sponsor	The agency in charge of administering a project.
7	Co-Sponsor/ Implementation Agency	The agency administering or implementing a project in partnership with the Sponsor.
8	Project Name	The name or title of the project.
9	Project Description	A brief description of the project location and the scope of work being implemented.
10	Air Quality Exempt Code	The Air Quality Exemption status per federal Environmental Protection Agency (EPA). A list of Air Quality Exempt Codes may be found in Appendix A-45.
11	Route	The State Highway System (SHS) or State Route (SR) number (if applicable).
12	Post Mile From	The beginning limit of a project's location on the State Highway System or on a State Route (if applicable).
13	Post Mile To	The terminating limit of a project's location on the State Highway System or on a State Route (if applicable).
14	Toll Credits	The amount of Toll Credits being used on the project. More information on the use of toll credits may be found in Appendix A-20 and Appendix A-21.

Funding Information

Please note that the years indicated in the funding information section of the project listing are shown as Federal Fiscal years. The Federal Fiscal Year (FY) in the TIP is from October 1 to September 30 of the following calendar year. The 2013 TIP covers the six-year period of FY 2012/13, FY 2013/14, FY 2014/15, FY 2015/16, FY 2016/17, and FY 2017/18.

#	Data Label	Definition
15	Phase	The stage of the project for which the specified funds have been programmed. Phases include: environmental (ENV), design engineering (PSE), preliminary engineering (PE), right of way acquisition (ROW), Caltrans support for right of way (ROW-CT), construction (CON), and Caltrans support for construction (CON-CT).
16	Fund Source	The program, law, or other source from which the specified funds originated. A list of all fund codes in use as of the adoption of the 2013 TIP, including the associated funding sources, may be found in Appendix A-39.
17	Prior Years	Funding programmed in years prior to the six years of the 2013 TIP (i.e. Federal Fiscal Year [FY] 2011/12 and earlier). These funds are shown for information only and are not part of the six years of the 2013 TIP.
18	The Six Years of the 2013 TIP	Funding programmed in years covered by the 2013 TIP.
19	Future Years	Funding programmed in years after the six years of the TIP. These funds are shown for information only and are not part of the six years of the TIP.
20	Total Programmed	The rows of the funding information table are calculated to show the total amount of funding from a given source programmed in a given phase. The columns are calculated to show the total amount of funding for all phases from all fund sources for a given year. The bottom left corner is calculated to show the total amount of funds programmed for a project inclusive of all fund sources, years, and phases.

Sample project listing:

1: TIP ID: SM-070004
 2: County: San Mateo
 3: System: Local Road
 4: RTP ID: 230592
 5: CTIPS ID: 20600003926
 6: Sponsor: East Palo Alto
 7: Implementing Agency: East Palo Alto
 8: Project Name: Bay Rd Improvement Phase II & III
 9: Description: E. Palo Alto: On Bay Rd btw University & Fordham (Ph II) & btw Clarke/Illinois & Cooley Landing Ph. III; Improvements including resurface, streetscape, bike lanes, & other improvements. HPP #706 (remainder programmed in SM050019)
 10: Air Quality Exempt Code: 1.10 - EXEMPT (40 CFR 93.126) - Pavement resurfacing and/or rehabilitation
 11: Route:
 12: Post Mile From:
 13: Post Mile To:
 14: Toll Credits:
 15: Phase
 16: Fund Source
 17: Prior Years
 18: FY 2012/13, FY 2013/14, FY 2014/15, FY 2015/16, FY 2016/17, FY 2017/18
 19: Future Years
 20: Total Programmed

Phase	Fund Source	Prior Years	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	Future Years	Total Programmed
ENV	EARMARK	\$ 284								\$ 284
ENV	OTHER LOCAL	\$ 71								\$ 71
PE	EARMARK	\$ 285	\$ 495							\$ 780
PE	OTHER LOCAL	\$ 71								\$ 71
PSE	EARMARK	\$ 570								\$ 570
PSE	OTHER LOCAL	\$ 143								\$ 143
ROW	EARMARK		\$ 1,077							\$ 1,077
ROW	OTHER LOCAL		\$ 270							\$ 270
CON	EARMARK			\$ 6,792						\$ 6,792
CON	OTHER LOCAL			\$ 1,822						\$ 1,822
Total Programmed Funding:		\$ 1,424	\$ 1,842	\$ 8,614						\$ 11,880



WEB PAGE ACCESS

How to View the TIP on the Internet

The Metropolitan Transportation Commission (MTC) has placed the entire Transportation Improvement Program (TIP) on the Internet. This allows project sponsors and the general public to see what transportation projects are planned in their area and in the MTC region. ,

Individual project listings may also be viewed interactively with the latest information as the TIP is amended through MTC's online (web based) Fund Management System (FMS) at the web address:

http://www.mtc.ca.gov/funding/fms_intro.htm.

To view the TIP on the Internet, the user will need a computer with Internet access capabilities or the user can visit any public library in the Bay Area and ask to use their Internet computer. Once on the startup page of the computer, type in the following Universal Resource Locator (URL) into the address line of the Web browser:

<http://www.mtc.ca.gov>

From MTC's Home Page, using the Site Index section on the left side of the screen and click on the word "*Funding*." This will take the user to MTC's Funding page. The TIP is listed as a feature on this page. Clicking on the "Transportation Improvement Program (TIP)" link will take the user to the TIP page. The user can also access the TIP page using the menu on the left side of the screen under "Funding".

From there the user can follow the on-line instructions to view actual TIP project listings or other portions of the TIP. For easier and faster access to the TIP, once on the startup page of your computer, type in the following URL into the address line and it will take you directly to the TIP Web page:

<http://www.mtc.ca.gov/funding/tip/index.htm>

For detailed information on individual projects, the particular project sponsor or lead implementing agency should be contacted directly.

View Project Locations in the TIP Interactively

To meet new SAFETEA requirements regarding Visualization Techniques, some of the listed projects have been mapped to present the online reader with a visual location of the project. Some projects such as transit operations and maintenance projects, planning projects and studies cannot be are not mapped. To view the listed projects, visit the FMS application at: http://www.mtc.ca.gov/funding/fms_intro.htm.

Once at the FMS homepage screen, select "Project Search," and click on "Search" button. It will bring up a complete list of the 2013 TIP projects. A list of all the TIP projects will be displayed. Projects that can be mapped interactively display a button in the left most column of the listing under the "Map It" header. By clicking on this button, a new window containing the project area map should appear.

If you have problems accessing MTC's on-line TIP, you can contact either:

Srikalyani Srinivasan
Phone: 510-817-5793
Email: ssrinivasan@mtc.ca.gov

or

Adam Crenshaw
Phone: 510-817-5794
Email: acrenshaw@mtc.ca.gov

Projects in the 2013 TIP Over \$200 Million

TIP ID	County	Orig TIP	Sponsor	Project Name	Total Project Cost (in \$ millions)	Project Cost within the TIP Period (in \$ millions)
ALA977038	Alameda	1997	Caltrans	San Francisco-Oakland Bay Bridge	\$5,706	\$41
BRT030001	Santa Clara	2003	VTA	BART - Berryessa to San Jose Extension	\$3,962	\$840
SF-050002	San Francisco	2005	TBJPA	Transbay Terminal/Caltrain Downtown Ext: Ph. 2	\$2,596	\$562
SCL110005	Santa Clara	2011	VTA	BART - Warm Springs to Berryessa Extension	\$2,522	\$1,897
SF-991030	San Francisco	1999	SF County TA	US 101 Doyle Drive Replacement	\$1,974	\$1,370
SF-010015	San Francisco	2001	TBJPA	Transbay Term/Caltrain Downtown Ext - Ph.1	\$1,589	\$701
SF-010037	San Francisco	2001	SFMTA	SF Muni Third St LRT Phase 2 - New Central Subway	\$1,570	\$1,009
SF-010028	San Francisco	2001	Caltrain	Caltrain Electrification	\$1,225	\$632
SF-070029	San Francisco	2007	TBJPA	Transbay Transit Center - TIFIA Loan Debt Service	\$1,075	\$4
REG090037	Regional	2009	BART	BART: Railcar Replacement Program	\$1,026	\$367
ALA050015	Alameda	2005	BART	BART - Warm Springs Extension	\$890	\$136
SOL070020	Solano	2007	STA	I-80/I-680/SR 12 Interchange Project	\$718	\$92
REG130002	Regional	2013	MTC	Toll Bridge Rehabilitation Program	\$629	\$399
REG050020	Regional	2005	BART	BART Car Exchange (Preventive Maintenance)	\$603	\$186
SCL990046	Santa Clara	1999	VTA	VTA: Preventive Maintenance	\$571	\$92
SON090002	Sonoma	2009	SMART	Sonoma Marin Area Rail Corridor	\$532	\$361
SCL090019	Santa Clara	2009	San Jose	San Jose International Airport People Mover	\$508	\$56
SM-979013	San Mateo	1997	Caltrans	SR 1 Devils Slide Bypass	\$505	\$0
BRT990002	Alameda	1999	BART	BART Oakland Airport Connector	\$484	\$106
CC-050025	Contra Costa	2005	BART	E-BART - East Contra Costa Rail Extension	\$460	\$167
CC-010023	Contra Costa	2001	CCTA	I-680 / SR 4 I/C Reconstruction - Phases 1-5	\$425	\$22
SCL110002	Santa Clara	2011	VTA	Santa Clara County - US 101 Express Lanes	\$425	\$4
CC-010002	Contra Costa	2001	Caltrans	SR 24 - Caldecott Tunnel 4th Bore	\$420	\$5

Projects in the 2013 TIP Over \$200 Million (cont'd)

TIP ID	County	Orig TIP	Sponsor	Project Name	Total Project Cost (in \$ millions)	Project Cost within the TIP Period (in \$ millions)
ALA991070	Alameda	1999	AC Transit	AC Transit: Preventive Maintenance Program	\$392	\$0
CC-030028	Contra Costa	2003	CCTA	SR 4 East Widening from Somersville to SR 160	\$385	\$20
SON070004	Sonoma	2007	Son Co TA	US 101 Marin/Sonoma Narrows (Sonoma)	\$373	\$4
MRN050034	Marin	2005	TAM	US 101 HOV Lanes - Marin-Sonoma Narrows (Marin)	\$341	\$80
SF-110006	San Francisco	2011	SF DPW	Hunters Pt Shipyard and Candlestick Pt Local Roads	\$338	\$7
REG090003	Regional	2009	MTC	Freeway Performance Initiative (FPI)	\$328	\$130
SM-050002	San Mateo	2005	SMCTA	Dumbarton Rail Service (PE and ROW only)	\$301	\$212
SCL050009	Santa Clara	2005	VTA	Capitol Expressway LRT Extension- Phase II	\$294	\$216
BRT050003	Regional	2005	BART	BART Transbay Tube Seismic Retrofit	\$276	\$0
MRN970016	Marin	1997	GGBHTD	Golden Gate Bridge Seismic Retrofit, Ph: 1-3A	\$274	\$0
SF-130006	San Francisco	2013	SF DPW	Southeast Waterfront Transportation Improvements	\$254	\$106
SCL110009	Santa Clara	2011	VTA	El Camino Real Bus Rapid Transit	\$234	\$232
SF-070027	San Francisco	2007	SF County TA	Yerba Buena Island (YBI) Ramp Improvements	\$233	\$218
REG110030	Regional	2011	Caltrain	Caltrain Positive Train Control System	\$231	\$206
SF-95037B	San Francisco	1995	SFMTA	SF Muni Rail Replacement Program	\$223	\$83
ALA090027	Alameda	2009	Port of Oakland	7th Street Grade Separation and Roadway Improvemen	\$221	\$2
ALA110046	Alameda	2011	Oakland	Oakland Army Base Infrastructure Improvements	\$215	\$205
SF-990022	San Francisco	1999	SFMTA	SFMTA: ADA Paratransit operating support	\$207	\$29
SF-130001	San Francisco	2013	SF DPW	SF- Better Market Street Transportation Elements	\$206	\$2
ALA050017	Alameda	2005	AC Transit	Enhanced Bus - Telegraph/Intl/East 14th	\$205	\$93
Total					\$35,947	\$10,894

Grouped Listings in the 2013 TIP Over \$200 Million

TIP ID	County	Orig TIP	Sponsor	Project Name	Total Project Cost	Project Cost within the TIP Period
VAR110004	Regional	2011	Caltrans	GL: Safety Imprv. - SHOPP Collision Reduction	\$221	\$221
VAR110005	Regional	2011	Caltrans	GL: Emergency Repair - SHOPP Emergency Response	\$287	\$287
VAR110044	Regional	2011	Caltrans	GL: Bridge Rehab and Reconstruction - SHOPP	\$499	\$499
VAR110045	Regional	2011	Caltrans	GL: Bridge Rehab/Recon. - Local Hwy Bridge Program	\$389	\$389
Total					\$1,397	\$1,397

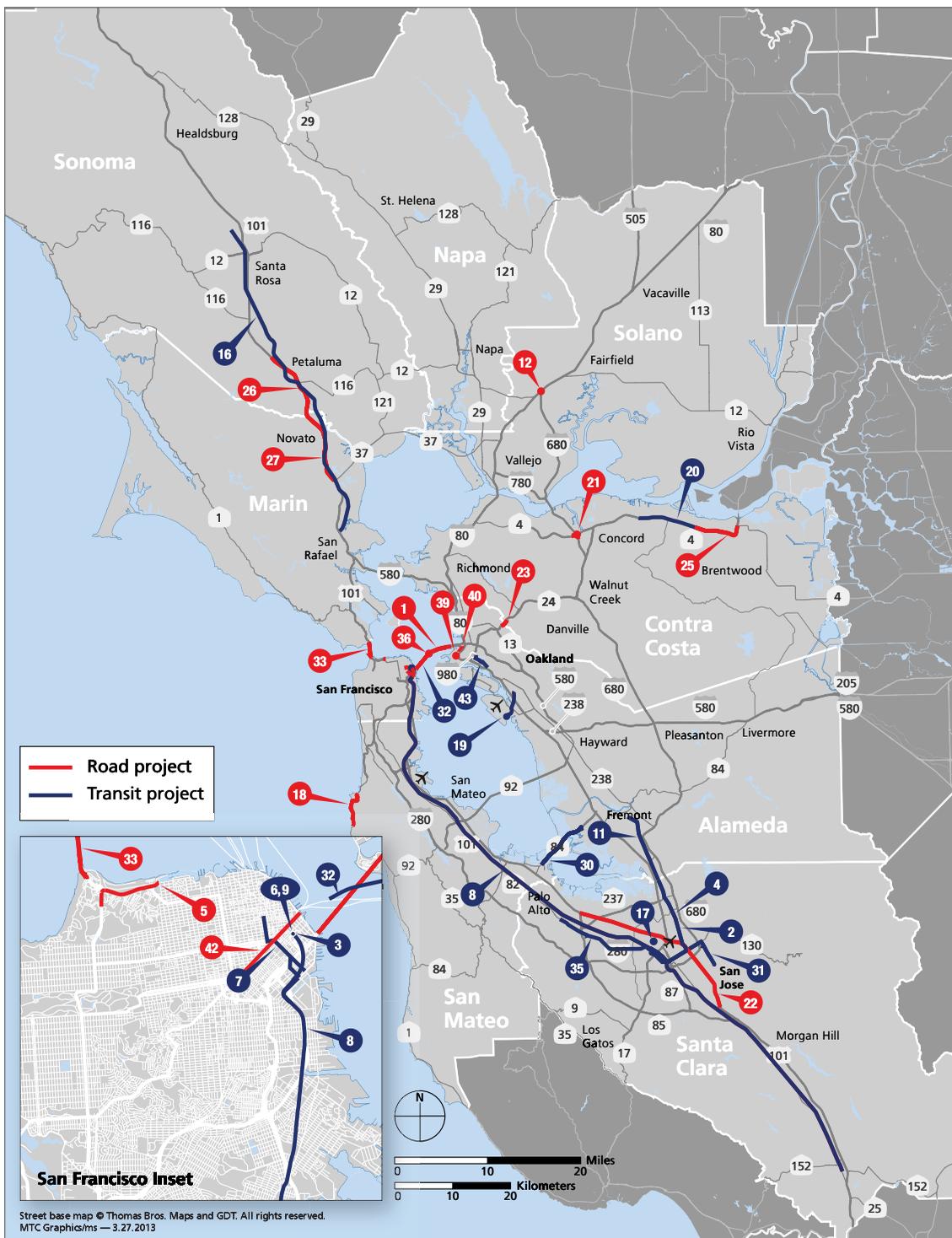
Projects in the Draft 2013 TIP Over \$200 Million

BLUE Transit Project
RED Road Project

- | | | |
|---|---|---|
| <p>1. San Francisco–Oakland Bay Bridge East Span Replacement
Alameda County
\$5.71 billion</p> <p>2. BART – Berryessa to San Jose Extension
Santa Clara County
\$3.96 billion</p> <p>3. Transbay Terminal/Caltrain Downtown Extension, Phase 2
San Francisco County
\$2.60 billion</p> <p>4. BART – Warm Springs to Berryessa Extension
Santa Clara County
\$2.52 billion</p> <p>5. US-101 Doyle Drive Replacement
San Francisco County
\$1.97 billion</p> <p>6. Transbay Terminal/Caltrain Downtown Extension, Phase 1
San Francisco County
\$1.59 billion</p> <p>7. SF Muni Third St LRT Phase 2 Central Subway
San Francisco County
\$1.57 billion</p> <p>8. Caltrain Electrification
Multiple Counties
\$1.23 billion</p> <p>9. Transbay Transit Center – TIFIA Loan Debt Service
San Francisco County
\$1.08 billion</p> <p>10. BART Railcar Replacement Program**
Multiple Counties
\$1.03 billion</p> <p>11. BART – Warm Springs Extension
Alameda County
\$890 million</p> <p>12. I-80/680/12 Interchange Project
Solano County
\$718 million</p> <p>13. Toll Bridge Rehabilitation Program**
Multiple Counties
\$629 million</p> <p>14. BART Car Exchange (Preventative Maintenance)**
Multiple Counties
\$603 million</p> <p>15. Valley Transportation Authority: Preventative Maintenance**
Santa Clara County
\$571 million</p> | <p>16. Sonoma Marin Area Rail Corridor
Sonoma/Marin Counties
\$532 million</p> <p>17. San Jose International Airport People Mover
Santa Clara County
\$508 million</p> <p>18. SR-1 Devils Slide Bypass Tunnel
San Mateo County
\$505 million</p> <p>19. BART Oakland Airport Connector
Alameda County
\$484 million</p> <p>20. E-BART – East Contra Costa County Rail Extension
Contra Costa County
\$460 million</p> <p>21. I-680/SR-4 Interchange Reconstruction, Phases 1-5
Contra Costa County
\$425 million</p> <p>22. US-101 Express Lanes in Santa Clara County
Santa Clara County
\$425 million</p> <p>23. SR-24 – Caldecott Tunnel Fourth Bore
Alameda/Contra Costa Counties
\$420 million</p> <p>24. AC Transit: Preventative Maintenance Program**
Alameda County
\$392 million</p> <p>25. SR-4 East Widening from Somersville Rd to SR-160
Contra Costa County
\$385 million</p> <p>26. US-101 Marin-Sonoma Narrows (Sonoma)
Sonoma County
\$373 million</p> <p>27. US-101 Marin-Sonoma Narrows (Marin)
Marin County
\$341 million</p> <p>28. Hunters Point Shipyard and Candlestick Point Local Roads**
San Francisco County
\$338 million</p> <p>29. Freeway Performance Initiative (FPI)**
Multiple Counties
\$328 million</p> | <p>30. Dumbarton Rail Service (PE and ROW only)
Alameda/San Mateo Counties
\$301 million</p> <p>31. Capitol Expressway LRT Extension, Ph. 2
Santa Clara County
\$294 million</p> <p>32. BART Transbay Tube Seismic Retrofit
Multiple Counties
\$276 million</p> <p>33. Golden Gate Bridge Seismic Retrofit, Ph. 1-3A
Marin/San Francisco Counties
\$274 million</p> <p>34. Southeast Waterfront Transportation Improvements**
San Francisco County
\$254 million</p> <p>35. El Camino Real Bus Rapid Transit
Santa Clara County
\$234 million</p> <p>36. Yerba Buena Island (YBI) Ramp Improvements
San Francisco County
\$233 million</p> <p>37. Caltrain Positive Train Control**
Multiple Counties
\$231 million</p> <p>38. SF Muni Rail Replacement Program**
San Francisco County
\$223 million</p> <p>39. 7th Street Grade Separation and Roadway Improvement
Alameda County
\$221 million</p> <p>40. Oakland Army Base Infrastructure Improvements
Alameda County
\$215 million</p> <p>41. SFMTA ADA Paratransit Operating Support**
San Francisco County
\$207 million</p> <p>42. Better Market Street Transportation Elements
San Francisco County
\$206 million</p> <p>43. Enhanced Bus – Telegraph/International/ East 14th
Alameda County
\$205 million</p> |
|---|---|---|

** These projects not shown on map

Projects in the Draft 2013 TIP With Costs Greater Than \$200 million



Contacts for Questions About the TIP

For questions on the TIP, you may contact:

Srikalyani Srinivasan
Phone: 510-817-5793
Email: ssrinivasan@mtc.ca.gov

Or

Adam Crenshaw
Phone: 510-817-5794
Email: acrenshaw@mtc.ca.gov

For detailed information on individual projects, the particular project sponsor or lead implementing agency should be contacted directly. General information on the transportation financing process can be found in two MTC publications, *Moving Costs: A Transportation Funding Guide for the Bay Area* and the *ABC's of MTC*. Both are posted on MTC's Web site at <http://www.mtc.ca.gov/library/>. Printed copies are available through the MTC/ABAG Library and may be ordered via e-mail library@mtc.ca.gov, fax (510.817.5848) or telephone (510.817.5836).

TIP- at- a-Glance

TIP-at-a-Glance provides a graphical summary of the number of projects, TIP funding and total project costs by mode, purpose and fund type for the entire region and each of the nine counties within the region. The charts and tables are on page 40 through page 44.

Single Line Project Listing Reports

The following four single line project listing reports have been included as Appendix A-52.

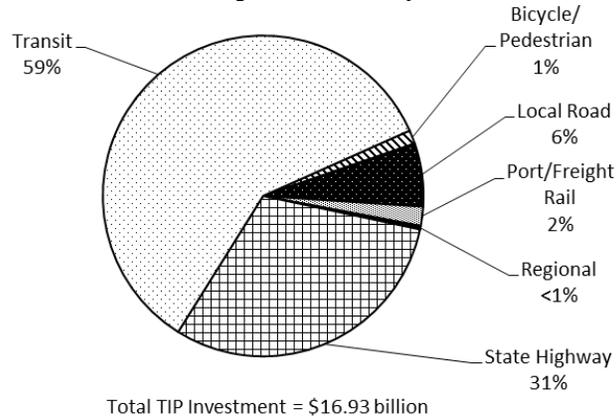
1. Single Line Project Listing by County
2. Single Line Project Funding Report – Funding by Phase
3. Single Line Project Funding Report – Funding by Authority
4. Single Line Project Funding Report – Funding by Funding by Fiscal Year

These reports include high level information as well as aggregated funding information about each project in a single line. They are divided by county with projects within each county sorted by project sponsor, transportation system, project purpose, and then TIP ID.

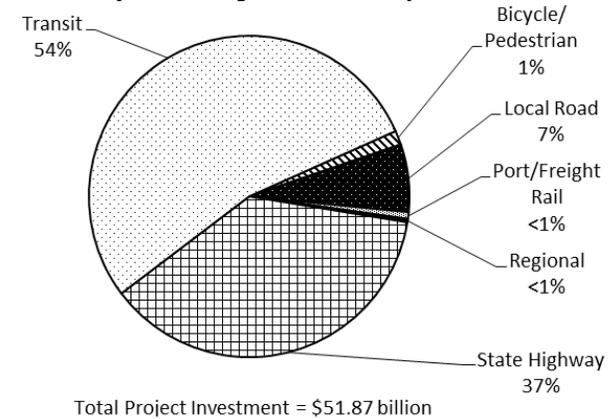
TIP-at-a-Glance - Distribution of Funding by Mode for the Bay Area

Mode	# of Projects	TIP Period Funding (in 1000s)								Total Project Cost (in 1000s)		
		FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	TIP Period Funding	Total Project Cost			
Bicycle/ Pedestrian	183	21%	\$85,762	\$83,865	\$19,398	\$9,324	\$36,000	\$0	\$234,349	1%	\$736,073	1%
Local Road	196	22%	\$313,034	\$234,614	\$99,625	\$89,837	\$319,131	\$18,800	\$1,075,040	6%	\$3,528,630	7%
Port/Freight Rail	5	<1%	\$297,095	\$27,700	\$0	\$0	\$0	\$0	\$324,795	2%	\$359,827	<1%
Regional	13	1%	\$13,620	\$45,663	\$589	\$609	\$632	\$0	\$61,112	<1%	\$168,087	<1%
State Highway	146	17%	\$1,364,119	\$977,526	\$1,003,418	\$393,992	\$414,061	\$1,023,978	\$5,177,094	31%	\$19,257,955	37%
Transit	330	38%	\$1,905,994	\$2,228,690	\$2,090,043	\$1,519,896	\$384,424	\$1,932,887	\$10,061,934	59%	\$27,824,146	54%
Total	873	100%	\$3,979,623	\$3,598,057	\$3,213,072	\$2,013,657	\$1,154,248	\$2,975,665	\$16,934,323	100%	\$51,874,717	100%

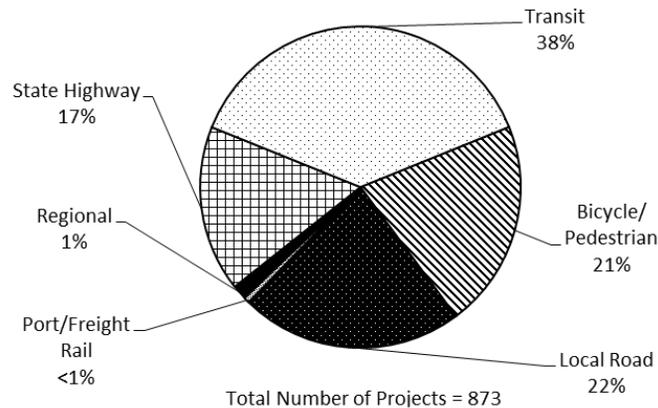
TIP Period Funding Distribution by Mode



Total Project Funding Distribution by Mode



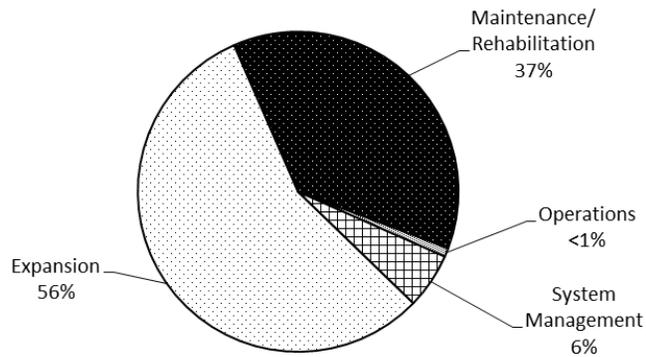
Share of Total Projects by Mode



TIP-at-a-Glance - Distribution of Funding by Purpose for the Bay Area

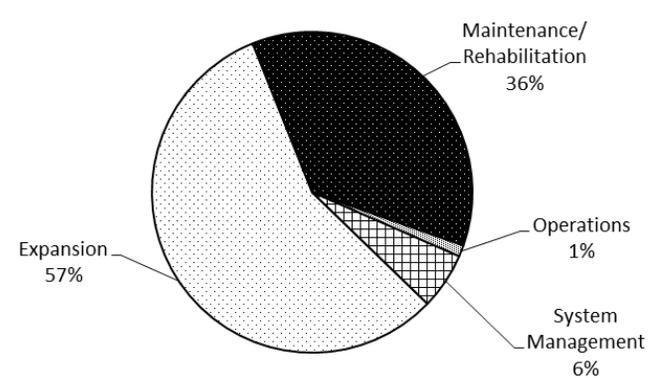
Purpose	# of Projects		TIP Period Funding (in 1000s)								Total Project Cost (in 1000s)	
			FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	TIP Period Funding			
Expansion	352	40%	\$1,819,671	\$1,939,636	\$2,343,125	\$1,473,345	\$504,383	\$1,440,323	\$9,520,484	56%	\$29,422,294	57%
Maintenance/Rehabilitation	244	28%	\$1,712,988	\$1,235,953	\$776,981	\$485,647	\$616,700	\$1,487,871	\$6,316,139	37%	\$18,904,389	36%
Operations	41	5%	\$99,699	\$49,902	\$0	\$0	\$0	\$0	\$149,601	<1%	\$597,906	1%
System Management	236	27%	\$347,265	\$372,567	\$92,966	\$54,665	\$33,164	\$47,471	\$948,099	6%	\$2,950,129	6%
Total	873	100%	\$3,979,623	\$3,598,057	\$3,213,072	\$2,013,657	\$1,154,248	\$2,975,665	\$16,934,323	100%	\$51,874,717	100%

TIP Period Funding Distribution by Purpose



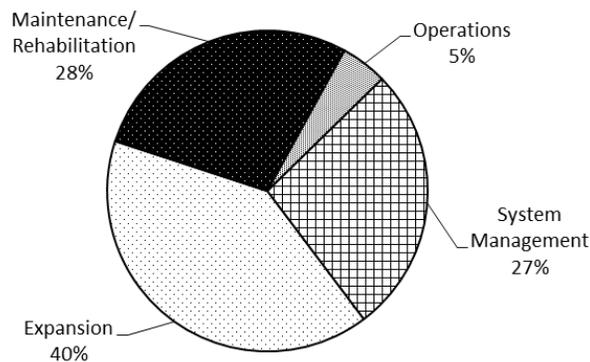
Total TIP Investment = \$16.93 billion

Total Project Funding Distribution by Purpose



Total Project Investment = \$51.87 billion

Share of Total Projects by Purpose

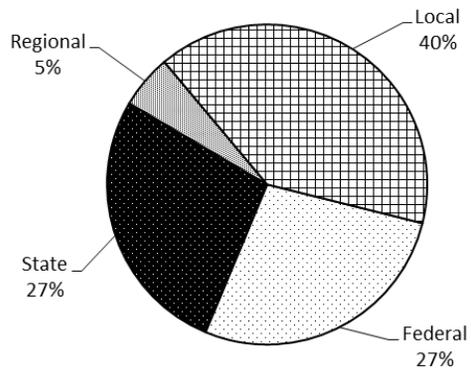


Total Number of Projects = 873

TIP-at-a-Glance - Distribution of Funding by Type for the Bay Area

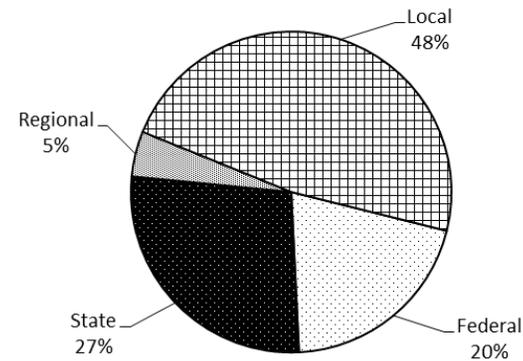
Type	TIP Period Funding (in 1000s)						TIP Period Funding		Total Project Cost (in 1000s)	
	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18				
Federal	\$1,077,399	\$959,676	\$994,596	\$820,989	\$411,797	\$377,000	\$4,641,456	27%	\$10,551,719	20%
State	\$1,336,430	\$764,935	\$636,450	\$361,808	\$279,053	\$1,224,249	\$4,602,925	27%	\$14,175,386	27%
Regional	\$377,679	\$286,070	\$97,174	\$98,213	\$23,828	\$34,358	\$917,320	5%	\$2,366,899	5%
Local	\$1,188,115	\$1,587,376	\$1,484,852	\$732,648	\$439,571	\$1,340,058	\$6,772,621	40%	\$24,780,713	48%
Total	\$3,979,623	\$3,598,057	\$3,213,072	\$2,013,657	\$1,154,248	\$2,975,665	\$16,934,323	100%	\$51,874,717	100%

TIP Period Funding Distribution by Type



Total TIP Investment = \$16.93 billion

Total Project Funding Distribution by Type



Total Project Investment = \$51.87 billion

TIP-at-a-Glance - Distribution of Funding by Mode for Individual Counties and Regional Projects (in \$1,000s)

County	Bicycle/ Pedestrian	Local Road	Port/ Freight Rail	Regional	State Highway	Transit	Total TIP Period Funding
Alameda	\$78,798	\$58,910	\$303,425	\$0	\$350,204	\$705,491	\$1,496,828
Contra Costa	\$33,187	\$166,658	\$21,370	\$0	\$262,454	\$355,940	\$839,609
Marin	\$16,001	\$26,932	\$0	\$0	\$335,241	\$60,684	\$438,858
Napa	\$315	\$3,097	\$0	\$0	\$850	\$9,440	\$13,702
San Francisco	\$22,826	\$179,158	\$0	\$0	\$1,590,168	\$3,370,431	\$5,162,583
San Mateo	\$11,865	\$22,721	\$0	\$0	\$216,908	\$316,986	\$568,480
Santa Clara	\$29,224	\$102,342	\$0	\$0	\$268,014	\$3,639,095	\$4,038,674
Solano	\$10,851	\$57,483	\$0	\$0	\$99,745	\$100,334	\$268,413
Sonoma	\$4,844	\$39,826	\$0	\$0	\$17,654	\$404,042	\$466,366
Regional	\$26,437	\$417,914	\$0	\$61,112	\$2,035,857	\$1,099,491	\$3,640,811
Total Bay Area	\$234,349	\$1,075,040	\$324,795	\$61,112	\$5,177,094	\$10,061,934	\$16,934,323

**TIP-at-a-Glance - Distribution of Funding by Purpose for Individual Counties and Regional Projects
(in \$1,000s)**

County	Expansion	Maintenance/ Rehabilitation	Operations	System Management	Total TIP Period Funding
Alameda	\$1,062,761	\$304,526	\$10,663	\$118,878	\$1,496,828
Contra Costa	\$717,053	\$78,400	\$7,522	\$36,634	\$839,609
Marin	\$256,972	\$169,225	\$4,320	\$8,341	\$438,858
Napa	\$3,515	\$2,703	\$6,013	\$1,471	\$13,702
San Francisco	\$2,557,977	\$2,497,054	\$30,542	\$77,010	\$5,162,583
San Mateo	\$374,711	\$142,586	\$3,846	\$47,337	\$568,480
Santa Clara	\$3,797,427	\$176,426	\$9,335	\$55,486	\$4,038,674
Solano	\$214,734	\$10,746	\$33,728	\$9,206	\$268,413
Sonoma	\$434,822	\$12,388	\$6,762	\$12,393	\$466,366
Regional	\$100,511	\$2,922,087	\$36,869	\$581,344	\$3,640,811
Total Bay Area	\$9,520,484	\$6,316,139	\$149,601	\$948,099	\$16,934,323

**TIP-at-a-Glance - Distribution of Funding by Type for Individual Counties and Regional Projects
(in \$1,000s)**

County	Federal	State	Regional	Local	Total TIP Period Funding
Alameda	\$211,802	\$522,607	\$77,414	\$685,005	\$1,496,828
Contra Costa	\$178,995	\$77,793	\$105,505	\$477,317	\$839,609
Marin	\$128,896	\$82,877	\$47,392	\$179,693	\$438,858
Napa	\$7,774	\$0	\$2,350	\$3,578	\$13,702
San Francisco	\$1,910,101	\$1,904,225	\$50,818	\$1,297,439	\$5,162,583
San Mateo	\$106,005	\$66,074	\$33,600	\$362,800	\$568,480
Santa Clara	\$975,305	\$291,330	\$675	\$2,771,364	\$4,038,674
Solano	\$55,149	\$119,168	\$57,492	\$36,604	\$268,413
Sonoma	\$98,896	\$25,200	\$38,249	\$304,021	\$466,366
Regional	\$968,533	\$1,513,652	\$503,826	\$654,800	\$3,640,811
Total Bay Area	\$4,641,456	\$4,602,925	\$917,320	\$6,772,621	\$16,934,323