

PASSED AND ADOPTED this 19th day of April 2016, by the following vote:

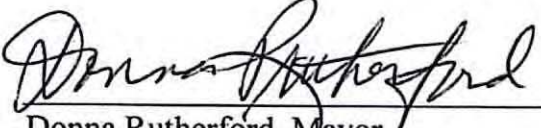
AYES:

NAES:

ABSENT:

ABSTAIN:

SIGNED:



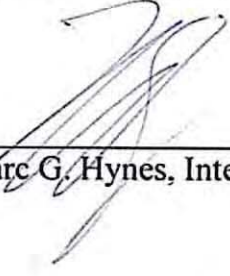
Donna Rutherford, Mayor

ATTEST:



Terrie Gillen, Deputy City Clerk

APPROVED AS TO FORM:



Marc G. Hynes, Interim City Attorney



CITY OF EAST PALO ALTO
OFFICE OF THE CITY MANAGER
 2415 UNIVERSITY AVENUE
 EAST PALO ALTO, CA 94303

WATER SUPPLY DISCLOSURE AND ACKNOWLEDGEMENT

Dear Applicant:

The City of East Palo Alto has insufficient water resources to supply new or intensified development. The City meets or exceeds its annual water allocation from the San Francisco Public Utilities Commission (SFPUC). The City is working on increasing its water supply through groundwater resources and a water transfer from other recipients of SFPUC water supply; however, currently, the City does not have water to supply new or intensified development.

Accordingly, new or intensified development projects cannot be approved without the following:

1. Applicant provides proof of location within the boundaries of the Palo Alto Park Mutual Water Company or the O'Connor Tract Water Mutual Company and proof of water supply.
2. Applicant secures verifiable water supply from another source, in a form and manner approved by the City and other applicable agencies.
3. The project leads to no net increase in water usage as determined by a City approved Water Demand Offset project. Such a project may include existing continuous water use on site and/or water savings generated by the installation of water saving devices elsewhere in the City.

By signature and date below, Applicant acknowledges that the City has informed Applicant the City does not have sufficient water supply for new or intensified development. Applicant further acknowledges no applications shall be processed by City without a signed Water Supply Disclosure and Acknowledgement.

 Print Name

 Signature and Date

Redwood City Daily News

255 Constitution Drive
Menlo Park, CA 94025

3730465

CITY OF EAST PALO ALTO/CITY CLERK
2415 UNIVERSITY AVE
PALO ALTO, CA 94303

**PROOF OF PUBLICATION
IN THE STATE OF CALIFORNIA
COUNTY OF SAN MATEO**

In the matter of

Redwood City Daily News

The undersigned, being first duly sworn, deposes and says: That at all times hereinafter mentioned affiant was and still is a citizen of the United States, over the age of eighteen years, and not a party to or interested in the above entitled proceedings; and was at and during all said times and still is the principal clerk of the printer and publisher of the Redwood City Daily News, a newspaper of general circulation printed and published daily in the County of San Mateo, State of California as determined by the court's decree dated December 26, 2001, Case Number CIV4199153, and that said Redwood City Daily News is and was at all times herein mentioned a newspaper of general circulation as that term is defined by Sections 6000; that at all times said newspaper has been established, printed and published in the said County and State at regular intervals for more than one year preceding the first publication of the notice herein mentioned. Said decree has not been revoked, vacated or set aside.

I declare that the notice, of which the annexed is a true printed copy, has been published in each regular or entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

07/08/2016

Dated at San Mateo County, California
July 8, 2016

I declare under penalty of perjury that the foregoing is true and correct.



Principal clerk of the printer and publisher of the Daily News

Legal No. 0005769983

**NOTICE OF PUBLIC HEARING
-TEMPORARY MORATORIUM ON WATER
SERVICE CONNECTIONS**

At a Special meeting of the City Council of the City of East Palo Alto commencing at 7:30PM on July 19, 2016 at the City Council Chambers 2415 University Avenue, East Palo Alto, CA 94303, the City Council will conduct a Public Hearing to consider the adoption of an Ordinance temporarily prohibiting new or expanded water service connections within the service territory of the City's water system owing to a water shortage in the City requiring that measures be taken to provide for sufficient water for human consumption, sanitation and fire protection.

All persons attending the special meeting shall have an opportunity to be heard to protest against this action and to present their respective needs to the City Council. The agenda for the meeting can be found at: <http://www.cityofepa.org/AgendaCenter>

The Americans with Disabilities Act (ADA) requires reasonable accommodation and access for the physically challenged. Those requesting such accommodation should contact the Office of the City Clerk at (650) 853-3127 four days before the hearing date.



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EXHIBIT 16



Business

East Palo Alto imposes development moratorium due to lack of water



A man walks by University Circle, which houses Four Seasons Hotel, international law firms and other offices in East Palo Alto, on Feb. 23, 2011. The city's redevelopment agency has completed two projects off University Avenue. On the east side of Highway 101, the massive blue IKEA furniture store abuts a big-box retail center and neat rows of 219 single-family homes. On the west side, the sleek University Circle office complex. (Dai Sugano/Mercury News)

By **MERCURY NEWS** | themerc@bayareanewsgroup.com |

PUBLISHED: July 20, 2016 at 7:04 am | UPDATED: August 11, 2016 at 11:06 pm

klandgraf@bayareanewsgroup.com

EAST PALO ALTO — A water crisis three decades in the making came to a head this week when East Palo Alto's City Council imposed a moratorium on development until the city can increase its historically meager water supply.

For the past 14 years, the city has used nearly all of its annual water allotment, making it increasingly difficult for East Palo Alto to approve new developments, unless they can essentially provide their own water. With no easy or affordable solution in sight, developers are caught in limbo as they wait for the city to obtain additional water resources — a process that could take years.

Three well-heeled developments managed to dodge the moratorium at Tuesday night's meeting if they pay a price. Office developments funded by the Sobrato Organization and a private equity firm, and the Primary School, founded by Mark Zuckerberg's wife Priscilla Chan, will be allowed to move forward with the projects if they agree to reimburse the city for the engineering and legal costs incurred by the city's quest to increase its water allocation.

So far, the water shortage has not delayed the Primary School's opening since it plans to start classes this fall in a temporary site, according to the school's spokesman Nathan James.

Other proposed developments are out of luck. An affordable housing project owned by the city did not make the cut, nor did 11 other developments that had recently submitted applications to build in East Palo Alto. Many of those developers showed up at Tuesday's meeting to voice their displeasure.

"We only found out about this last Thursday," said Jeff Major, a vice president and investment officer with Prologis, a real estate company that last month submitted a development proposal for an industrial building in the Ravenswood district of East Palo Alto.

Major requested that the council oppose the moratorium in favor of working with developers to obtain the water. "We'd like to help out in any way we can," he said.

The council was unswayed, however. By a 4 to 1 vote, it chose to implement the moratorium, which will last for two years or until the city manages to obtain more water. That won't be easy. The city is pumping more of its own groundwater, but those supplies are limited. It's also trying to buy water from other Bay Area cities and ask the city's main supplier, the San Francisco Public Utilities Commission, to increase its annual water allocation.

But it's unclear how long it would take to buy water from other cities or increase East Palo Alto's water allocation from the SFPUC, according to Sean Charpentier, East Palo Alto's assistant city manager. That's because neither solution has been attempted before. "This is unprecedented," Charpentier said.

East Palo Alto's current water woes began in 1984 when the SFPUC entered into a contract to sell Hetch Hetchy reservoir water to cities and water agencies on the Peninsula. East Palo Alto, which historically has been low-income, had only just been incorporated the year before, and its water needs were managed by a county agency that later dissolved.

"Like many communities of color, they're the last to know when the goodies are being handed out," said Gary Kremen, a Silicon Valley entrepreneur and member of the Santa Clara Valley Water Board District's board of directors. "East Palo Alto got a super raw deal here."

When the SFPUC water was divvied up among Bay Area cities, East Palo Alto was allocated the smallest slice of the water pie — an inequity that persists to today.

With a high share of small lots and multiple-family housing, East Palo Alto consumes less than 57 gallons per person a day, while the tony community of Hillsborough with its luxurious gardens uses more than 301 gallons per person each day.

In June, East Palo Alto petitioned the SFPUC to increase its allotment by 1.5 million gallons a day, up from the 1.96 million gallons it currently receives. But an answer isn't likely to come anytime soon: The SFPUC isn't scheduled to vote on the question until December 2018.

And East Palo Alto faces steep hurdles in obtaining water from the utility commission. In 2008 the SFPUC agreed that it would cap the water it uses from the Tuolumne River until 2018, due to environmental pressures from the Tuolumne River Trust, a conservation group.

Kremen says such conservation efforts can complicate the efforts of cities such as East Palo Alto to meet their water needs. "It's that environmental elitism over the need of people of color," said Kremen. "I'm a conservationist but a lot of things they do that increase the price of water directly affect low-income people, people on fixed incomes and people of color, specifically."

That's not the way Peter Drekmeier sees it.

"It's not the cap so much as the way the water is divided up," said Drekmeier, policy director for the Tuolumne River Trust and former mayor of Palo Alto. "You're absolutely right that East Palo Alto got the short end of the stick, but we're working with them to come up with a solution."

East Palo Alto could also try to buy water from other cities that don't use their full allotment — an uncertain proposal since no one has done it before, said Steven Ritchie, Assistant General Manager of the Water Enterprise at SFPUC.

"It's not going to be easy to do, but on the other hand it's easier than providing the additional supply," said Ritchie.

Until it finds a water solution, East Palo Alto is halting development, despite builders' objections. Because of the lack of water, "in effect, we've had a de facto moratorium," said Charpentier. "Processing (development) agreements without proof of water feels like driving toward a cliff."

With this solution, he said, "it feels like we're building a bridge."

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By  HONDA

It only takes 3-5 minutes to refuel the hydrogen-powered Clarity Fuel Cell. And it's ridiculously easy.

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EXHIBIT 17



BayArea Plan

Strategy for A Sustainable Region

Adopted July 18, 2013



Association
of Bay Area
Governments



METROPOLITAN
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Metropolitan Transportation Commission

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Supervisor Katie Rice Marin	Mayor Pat Eklund City of Novato / Marin	Councilmember Desley Brooks City of Oakland
Supervisor Mark Luce Napa	Mayor Leon Garcia City of American Canyon / Napa	Councilmember Sam Liccardo City of San Jose
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BayArea Plan

Regional Transportation Plan and
Sustainable Communities Strategy
for the San Francisco Bay Area
2013–2040

Adopted July 18, 2013



Association
of Bay Area
Governments



METROPOLITAN
TRANSPORTATION
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Welcome to Plan Bay Area



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Appendix 1

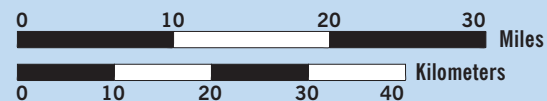
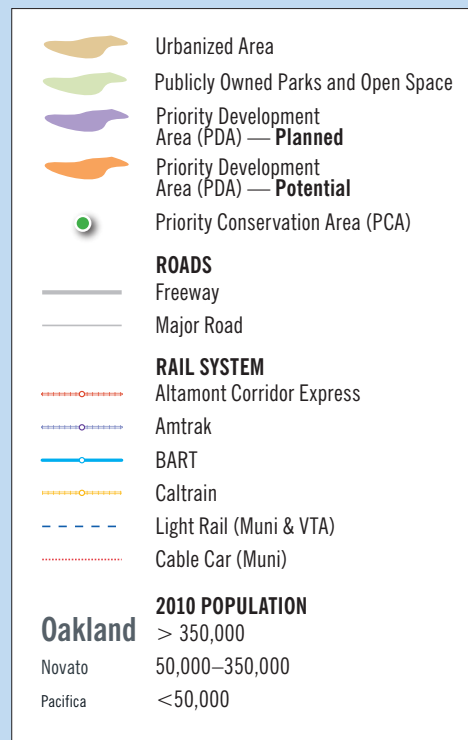
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MAP 1

San Francisco Bay Area: Transportation and Land Uses



Map is for general information. For more information on local zoning or designations for a particular site or parcel, please contact your city or county.

Introduction

Strategy for a Sustainable Region



Simon Marcus, Corbis Images

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, 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 what is best for their citizens and their communities.

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



San Francisco-Oakland Bay Bridge Caltrans

(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 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.

Preserving Local Land Use Control

Adoption of Plan Bay Area does not mandate any changes to local zoning, general plans or project review. The region’s cities, towns and counties maintain control of all decisions to adopt plans and permit or deny development projects. Similarly, Plan Bay Area’s forecasted job and housing numbers do not act as a direct or indirect cap on development locations in the region. The forecasts are required by SB 375 and reflect the intent of regional and local collaboration that is the foundation of Plan Bay Area.

The plan assists jurisdictions seeking to implement the plan at the local level by providing funding for PDA planning and transportation projects. Plan Bay Area also provides jurisdictions with the option of increasing the efficiency of the development process for projects consistent with the plan and other criteria included in SB 375.



Sergio Ruiz

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.

Plan Bay Area is one element of a broader California effort to reduce greenhouse gas emissions. While Plan Bay Area focuses on where the region is expected to grow and what transportation investments will support that growth, Assembly Bill 32 (2006) creates a comprehensive framework to cut greenhouse gases with new, cleaner fuels, more efficient cars and trucks, lower carbon building codes, cleaner power generation, as well as coordinated regional planning. In addition, Caltrans will lead efforts consistent with Senate Bill 391 (2009) to reduce greenhouse gases statewide from the transportation sector, including freight. These strategies are outlined in the California Air Resources Board’s (CARB) 2008 Scoping Plan, which demonstrates there is no single way to reduce greenhouse gases. Every sector must contribute if the state is to achieve its goals today and for tomorrow’s generations.



Noah Berger

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 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. In addition, there were multiple rounds of engagement with the Bay Area’s

Native American tribes, as detailed in the tribal consultation report. (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 also are 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.

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 5: “Plan Bay Area Equity Performance Measures.”)



Noah Berger

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 4 for a summary of all the Plan Bay Area performance targets.)

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 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.



Joyce Benna

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

By 2040 the San Francisco Bay Area is projected to add 2.1 million people.

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.

Racial and Ethnic Diversity Expected to Increase

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 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.

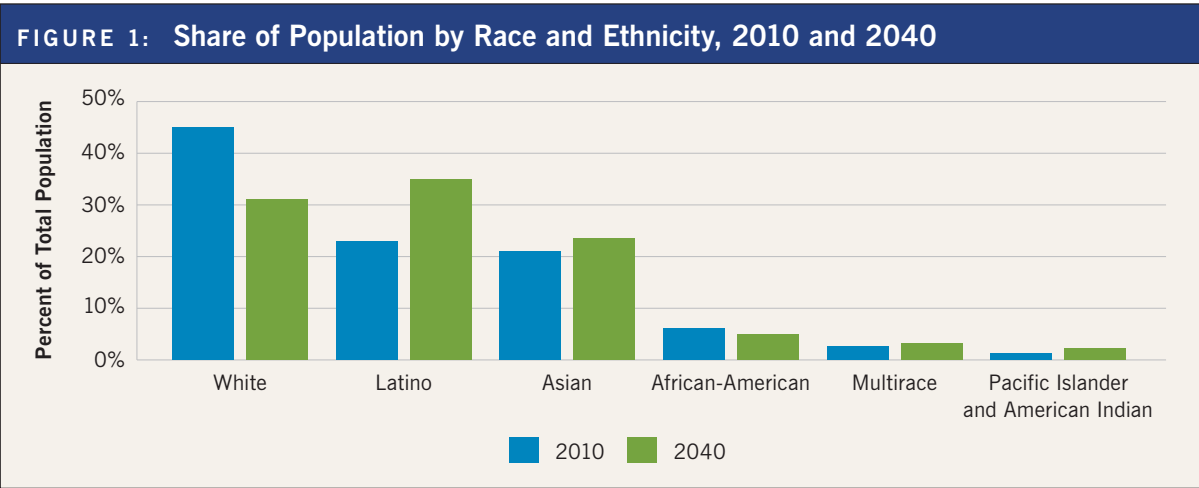
This state forecast aligns with Plan Bay Area’s projection that by 2040 the Bay Area population will become substantially more racially and ethnically diverse. Latinos will emerge as the largest ethnic group, increasing from 23 percent to 35 percent of the total population. The number of Asians also will increase, growing from 21 percent to about 24 percent of the population.



Noah Berger

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



Sources: 2010 Census, California Department of Finance, ABAG

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.)



Ron Finger

total housing construction in the 1990s to nearly 50 percent in the 2000s. In 2010 it represented 65 percent of all housing construction.

As discussed above, demand for multifamily housing is projected to increase as seniors downsize and seek homes in more urban locations. 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 region’s 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 the 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.



Peter Beeler

TABLE 1: Bay Area Job Growth 2010–2040, Top 15 Cities					
Rank	Jurisdiction	Jobs		2010–2040 Job Growth	
		2010	2040	Growth	Percentage Growth
1	San Francisco	568,720	759,500	190,780	34%
2	San Jose	377,140	524,510	147,380	39%
3	Oakland	190,490	275,760	85,260	45%
4	Santa Clara	112,890	146,180	33,290	29%
5	Fremont	90,010	120,000	29,990	33%
6	Palo Alto	89,690	119,470	29,780	33%
7	Santa Rosa	75,460	103,940	28,470	38%
8	Berkeley	77,110	99,330	22,220	29%
9	Concord	47,640	69,450	21,810	46%
10	Sunnyvale	74,810	95,600	20,790	28%
11	San Mateo	52,540	72,950	20,410	39%
12	Hayward	68,140	87,820	19,680	29%
13	Redwood City	58,080	77,480	19,400	33%
14	Walnut Creek	41,720	57,380	15,660	38%
15	Mountain View	47,950	63,590	15,640	33%

Source: ABAG, 2013

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.

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.

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 below.)

Transportation Investments

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

TABLE 2: Bay Area Housing Unit Growth 2010–2040, Top 15 Cities					
Rank	Jurisdiction	Housing Units		2010–2040 Housing Unit Growth	
		2010	2040	Growth	Percentage Growth
1	San Jose	314,040	443,320	129,280	41%
2	San Francisco	376,940	469,430	92,480	25%
3	Oakland	169,710	221,160	51,450	30%
4	Sunnyvale	55,790	74,820	19,030	34%
5	Concord	47,130	65,200	18,070	38%
6	Fremont	73,990	91,620	17,630	24%
7	Santa Rosa	67,400	83,430	16,030	24%
8	Santa Clara	45,150	58,930	13,780	31%
9	Milpitas	19,810	32,430	12,620	64%
10	Hayward	48,300	60,610	12,320	26%
11	Fairfield	37,180	48,300	11,120	30%
12	San Mateo	40,010	50,200	10,180	25%
13	Livermore	30,340	40,040	9,700	32%
14	Richmond	39,330	49,020	9,690	25%
15	Mountain View	33,880	43,280	9,400	28%

Source: ABAG, 2013



Tom Tracy

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 OneBayArea Grant program.

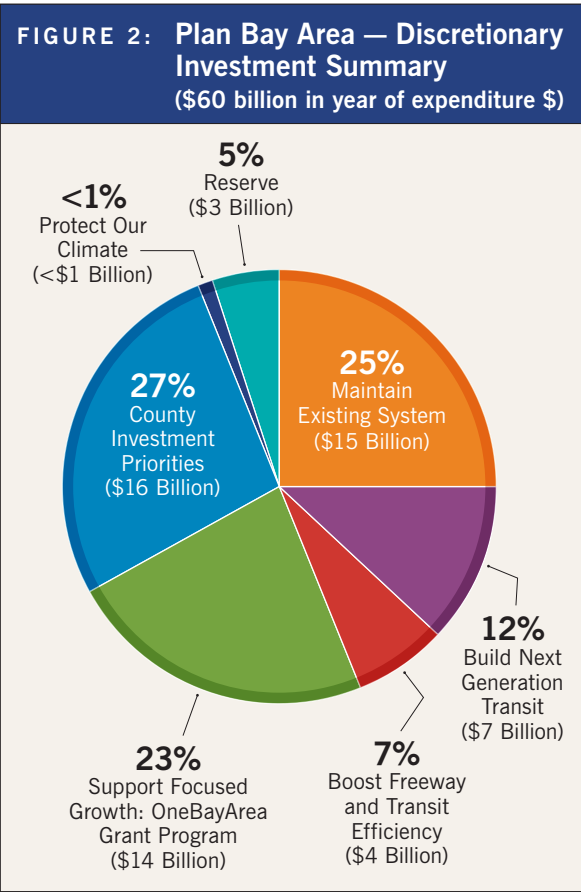
Plan Bay Area transportation revenue forecasts total \$292 billion over the 28-year period. Over two-thirds (68 percent) of these funds are from regional and local sources, primarily dedicated sales tax programs and bridge tolls. Making up the remainder of the pie are state and federal revenues (mainly derived from fuel taxes). Of the total revenues, \$60 billion are “discretionary,” or available for assignment to projects and programs through Plan Bay Area.

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



“Top 10” Plan Bay Area Investments, by Project

(includes Committed and Discretionary funds)

TABLE 3: 10 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	\$6,057
3	Transbay Transit Center/Caltrain Downtown Extension (Phases 1 and 2)	\$4,185
4	Integrated Freeway Performance Initiative (FPI)	\$2,729
5	Presidio Parkway/Doyle Drive US 101 seismic replacement	\$2,053
6	Caltrain Electrification and Operational/Service Frequency Improvements	\$1,843
7	SF MUNI Central Subway: King Street 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

that we maintain existing transportation assets, primarily concentrated in the region’s core, which reinforces the plan’s focused growth strategy.

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 San Francisco Muni turned 100 — this should come as no surprise.

Support Focused Growth — OneBayArea 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 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.



Arlene Finger

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.



Jay Jones

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.

1

Setting Our Sights



Caldecott Tunnel

Karl Nielsen

Chapter 1

Setting Our Sights

Crafting a plan to meet the challenges and opportunities of the coming quarter-century is a big job. MTC and ABAG tackled this assignment with enthusiasm, emphasizing both an open, inclusive attitude and a commitment to analytical rigor.

We reached out to thousands of people from around the region, through stakeholder sessions, public workshops, telephone and internet surveys, and countless other means to involve a wide swath of the public in the development of the plan. The region's 101 cities and nine counties also participated in the development of the plan, as did our fellow regional agencies, the Bay Conservation and Development Commission and the Bay Area Air Quality Management District. Community-based organizations and advocacy groups representing the diverse interests of the Bay Area played their part, as did some three dozen regional transportation partners. The plan's outreach effort was both broad-based and deep.

At the same time, wanting to hew to strict objective standards of progress, MTC and ABAG adopted 10 specific targets against which to measure the success of the plan in achieving genuine regional benefits and required statutory goals. This chapter traces the overall development of Plan Bay Area, with special attention to the public process followed, and to the setting, adjusting and assessment of key performance objectives.

Establishing a Performance Framework

What are we aiming for in Plan Bay Area, and how can we measure our success in achieving it? New mandates answer those questions to some degree. California Senate Bill 375, enacted in 2008, requires that we plan for future housing needs and complementary land uses, which in turn must be supported by a transportation investment strategy. And we must do this in a way that reduces emissions of greenhouse gases from cars and light-duty trucks. A fully integrated land use and transportation planning approach is needed to meet these requirements, and Plan Bay Area embraces and embodies such an approach.

Combining these mandated objectives with a careful assessment of the long-range needs of the Bay Area and an understanding of the desires and aspirations of its residents — communicated loudly and diversely through the many avenues provided for public participation (see sidebar on page 28) — we can begin to structure a serious plan for the region. But before proposing a land use distribution approach or recommending a transportation investment strategy, planners must formulate in concrete terms the hoped-for outcomes we seek. For Plan Bay Area, performance targets are an essential element of this regional planning process, allowing for rational discussion of quantitative metrics. Establishing targets allows for various alternative strategies to be assessed and compared using a consistent set of metrics.

Collaborative Process

MTC and ABAG engaged a broad spectrum of regional stakeholders in order to make the targets as meaningful as possible in measuring the plan’s success. This collaborative process in the latter half

of 2010 involved reviewing nearly 100 possible performance targets, which were critically examined using a set of evaluation criteria. These criteria emphasized targets that could be forecasted by modeling tools and potentially influenced by policies and investments in the future plan. After six months of discussion and debate reflecting input from local stakeholders, equity, environment and business advocates, and concerned members of the public, a list of the preferred targets took shape. These targets went beyond traditional transportation concerns, such as metrics for regional mobility, and instead embraced broader regional concerns, including land use, environmental quality and economic vitality.



Noah Berger

The Plan Bay Area targets, adopted in January 2011, reflect this plan’s emphasis on sustainability. Sustainability encapsulates a broad spectrum of concerns, including environmental impacts from greenfield development and vehicle emissions, equity impacts from displacement and low-income household affordability, and economic impacts from regional competitiveness. By integrating these three E’s — environment, equity and economy — throughout the targets, Plan Bay Area truly aims to measure the success of creating sustainable communities. We paid special attention to the equity component of the three E’s triad, as detailed later in this chapter.

Of course, adopting these voluntary targets is not the same as achieving them. Many are extremely ambitious. But two of the targets are not only ambitious, but also mandatory and vitally important. Plan Bay Area must reduce greenhouse gas emissions by specified amounts, and it must plan for housing in a quantity sufficient for the region’s population. These

targets are critical to achieving state and regional goals in combating climate change — and the plan meets those major milestones.

The Plan Bay Area targets adopted by MTC and ABAG are displayed in Table 4; information on how the plan performs against the targets can be found in Chapter 5, “Performance.”

TABLE 4: Adopted Plan Bay Area Performance Targets*		
Goal/Outcome		Performance Target
Required		
Climate Protection	1	Reduce per-capita CO ₂ emissions from cars and light-duty trucks by 15 percent (Statutory requirement is for year 2035, per SB 375)
Adequate Housing	2	House 100 percent of the region’s projected growth (from a 2010 baseline year) by income level (very-low, low, moderate, above-moderate) without displacing current low-income residents (Statutory requirement, per SB 375)
Voluntary		
Healthy and Safe Communities	3	Reduce premature deaths from exposure to particulate emissions: <ul style="list-style-type: none">• Reduce premature deaths from exposure to fine particulates (PM_{2.5}) by 10 percent• Reduce coarse particulate emissions (PM₁₀) by 30 percent• Achieve greater reductions in highly impacted areas
	4	Reduce by 50 percent the number of injuries and fatalities from all collisions (including bike and pedestrian)
	5	Increase the average daily time walking or biking per person for transportation by 70 percent (for an average of 15 minutes per person per day)
Open Space and Agricultural Preservation	6	Direct all non-agricultural development within the urban footprint (existing urban development and urban growth boundaries) (Note: Baseline year is 2010.)
Equitable Access	7	Decrease by 10 percentage points (to 56 percent, from 66 percent) the share of low-income and lower-middle income residents’ household income consumed by transportation and housing
Economic Vitality	8	Increase gross regional product (GRP) by 110 percent — an average annual growth rate of approximately 2 percent (in current dollars)
Transportation System Effectiveness	9	<ul style="list-style-type: none">• Increase non-auto mode share by 10 percentage points (to 26 percent of trips)• Decrease automobile vehicle miles traveled per capita by 10 percent
	10	Maintain the transportation system in a state of good repair: <ul style="list-style-type: none">• Increase local road pavement condition index (PCI) to 75 or better• Decrease distressed lane-miles of state highways to less than 10 percent of total lane-miles• Reduce share of transit assets past their useful life to 0 percent (Note: Baseline year is 2012.)

*Unless noted, the Performance Target increases or reductions are for 2040 compared to a year 2005 baseline.

Taking Equity Into Account

In addition to assessing Plan Bay Area’s impact on the 10 adopted targets, which collectively cover a wide range of issues and policies, MTC and ABAG also made a special effort to gauge the effects of Plan Bay Area on the region’s low-income and minority populations. Indeed, a commitment to achieving equity in the long-range planning process is a key element of Plan Bay Area’s performance-based approach. MTC and ABAG staff prepared an Equity Analysis to evaluate quantitative measures of equity concerns. Aspects of this analysis serve both to satisfy MTC’s federal requirements with respect to the metropolitan planning process, as well as Plan Bay Area’s objective to advance equity in the region.

The Equity Analysis identifies “communities of concern” in the region with concentrations of socioeconomically disadvantaged or vulnerable populations. MTC developed the definition of communities of concern in concert with key regional equity stakeholders, public agency staff, and community representatives, who also prioritized the equity measures based on what stakeholders believed were the region’s most significant equity-



Noah Berger

related issues today and in the context of future growth: affordability, equitable growth, healthy communities, access to jobs, and equitable mobility for all system users. Guided by these priorities, MTC staff developed the set of five equity performance measures displayed in Table 5.

TABLE 5: Plan Bay Area Equity Performance Measures		
	Equity Issue	Performance Measure
1	Housing and Transportation Affordability	% of income spent on housing and transportation by low-income households
2	Potential for Displacement	% of rent-burdened households in high-growth areas
3	Healthy Communities	Average daily vehicle miles traveled per populated square mile within 1,000 feet of heavily used roadways
4	Access to Jobs	Average travel time in minutes for commute trips
5	Equitable Mobility	Average travel time in minutes for non-work-based trips

Scenarios Take Aim at 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. We can compare conditions over the lifespan of the plan by measuring changes in the performance target metrics between 2005 and 2040. Because many of the targets are aspirational in nature, ABAG and MTC understood and made clear through the scenario-development process (described below) that some targets might not be achievable through Plan Bay Area. Also, and importantly, the targets were crafted to focus on desirable regional outcomes that did not preordain a specific land use pattern, transportation mode or investment strategy to reach that goal.

With the targets clearly identified, MTC and ABAG formulated possible “visioning” 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. In simplified

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.

terms, if the targets delineate the plan’s aspirations, the scenarios represent possible ways to realize them. Obviously, the goal is to identify the most promising scenario, especially with respect to the attainment of the statutory requirements for greenhouse gas emission reductions and for the provision of an adequate amount of housing.

See the full Performance Assessment Report (listed in Appendix 1) for detailed information on the scenario evaluation process.



Noah Berger

MTC and ABAG staff developed a second set of scenarios, relying on input from the public, cities and counties, and transportation agencies.

Visioning Scenarios

The transportation and land use alternative included in this Plan Bay Area resulted from three rounds of scenario analyses. (For a helpful flow-chart graphic of this process, see pages 24–25.) In early 2011, two potential land use patterns were developed by ABAG staff: “Current Regional Plans,” which reflected cities’ current general plans and visions for growth; and an “Initial Vision Scenario,” a hypothetical growth pattern put forward by ABAG staff with input from local governments and county congestion management agencies. As depicted in Table 6, each land use pattern was paired with the transportation network contained in the Transportation 2035 Plan (adopted in 2009) and tested to yield a

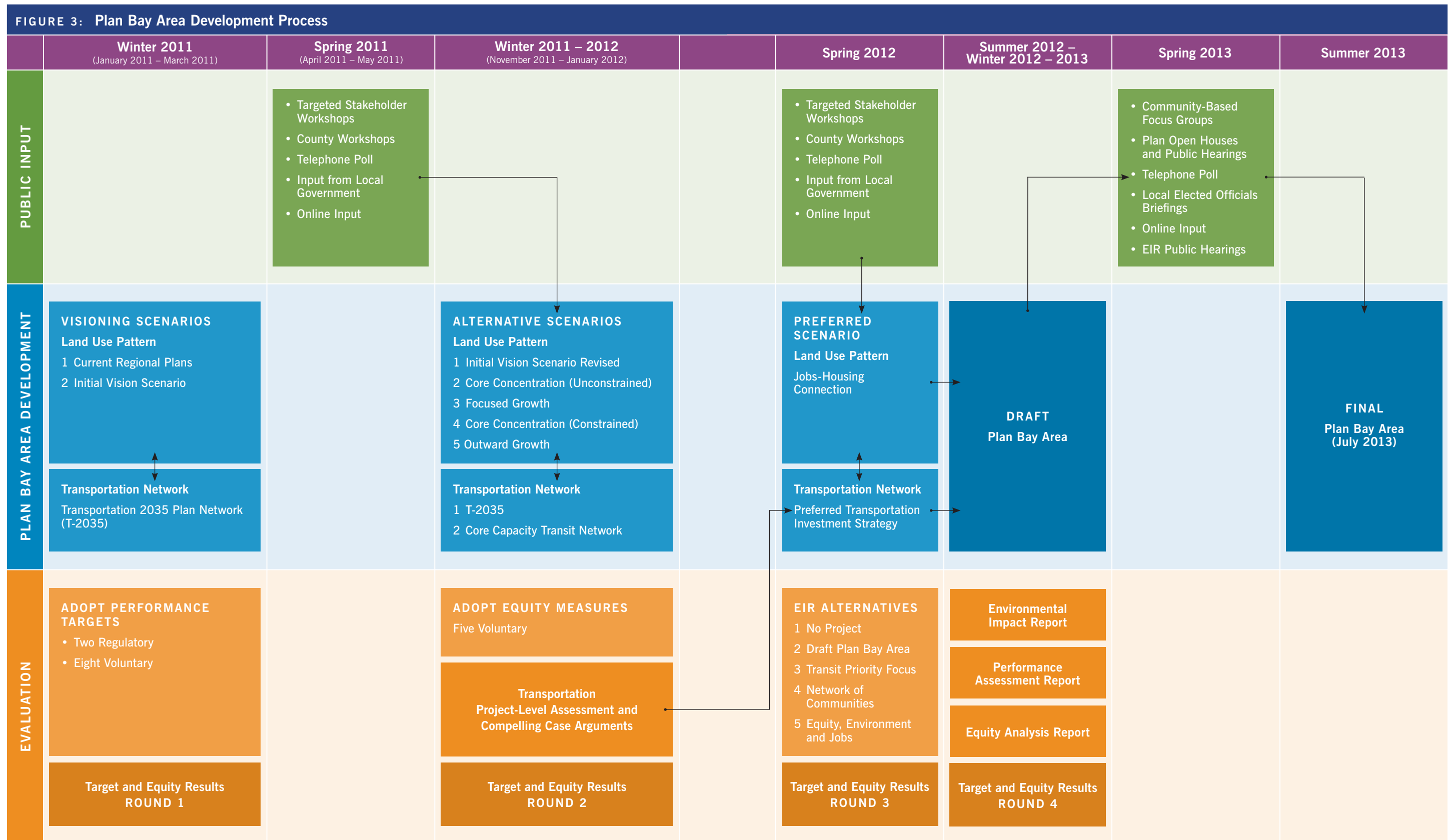
set of both target and equity performance results. These scenario results provided a starting point for a first round of visioning conversations with local governments and Bay Area residents about where new development should occur, and how new long-term transportation investments might serve this new growth.

Alternatives to the Visioning Scenarios

Over the winter of 2011–12, MTC and ABAG staff developed a second set of scenarios, relying on input from the public, cities and counties, and transportation agencies. These scenarios included a wider range of alternative land use patterns as the basis for expanding the regional dialogue on the type of development, planning strategies and investments that would be best for Plan Bay Area. Five land use patterns were identified, and each was matched with one of two proposed transportation networks — the Transportation 2035 Network (i.e., the 2009 long-range plan) or a Core Capacity Transit Network — based on which best supported the pattern of development. These combinations were then separately evaluated against the performance targets, and against the five social equity measures discussed elsewhere in this chapter. See Table 7 for the specific scenario pairings.

TABLE 6: Visioning Scenarios	
Land Use Patterns	Transportation Network
Current Regional Plans <ul style="list-style-type: none">Generally reflects cities’ current general plans for lower amounts of growth.Growth includes 634,000 new housing units and 1.1 million new jobs.	Transportation 2035 Plan Network (T-2035) <ul style="list-style-type: none">Network is the multimodal investment strategy in the Transportation 2035 Plan.Contains significant funding for operations and maintenance of the existing system; limited expansions of highway and transit networks.
Initial Vision Scenario <ul style="list-style-type: none">Growth pattern developed with input from local governments and county congestion management agencies.Land uses based on Priority Development Areas and Growth Opportunity Areas.Growth includes 902,000 new housing units and 1.2 million new jobs.	

TABLE 7: Alternatives to the Visioning Scenarios	
Land Use Patterns	Transportation Networks
Initial Vision Scenario Revised <ul style="list-style-type: none">Concentrates housing and job growth in Priority Development Areas (PDAs).	Transportation 2035 (T-2035) Plan Network <ul style="list-style-type: none">Network is the multimodal investment strategy in the Transportation 2035 Plan.Contains significant funding for operations and maintenance of existing system; limited expansions of highway and transit networks.
Core Concentration (Unconstrained) <ul style="list-style-type: none">Concentrates housing and job growth in locations served by frequent transit service, and/or in core Bay Area locations within a 45-minute transit commute area of downtown San Francisco, downtown Oakland or downtown San Jose.Scenario is “unconstrained” due to the high levels of population and job growth that were assumed.	Core Capacity Transit Network <ul style="list-style-type: none">Significantly increases transit service frequencies along core transit network.Keeps T-2035 investment levels for maintenance and bike/pedestrian projects; reduces T-2035 roadway expansion investments.Requires additional capital and operating funds to pay for major expansion of transit services.
Core Concentration (Constrained) <ul style="list-style-type: none">Similar to unconstrained version above; housing and job growth is distributed to selected PDAs in the inner Bay Area, focusing on major downtowns and areas along the region’s core transit network.Scenario is “constrained” with lower levels of population and job growth relative to Initial Vision Scenario (Revised) and Core Concentration (Unconstrained).	
Focused Growth <ul style="list-style-type: none">Growth is distributed more evenly along transit corridors and job centers, with emphasis on development in PDAs and Growth Opportunity Areas (potential locations for focused growth outside already established PDAs).	
Outward Growth <ul style="list-style-type: none">Distributes greater amounts of growth to the inland Bay Area, with some emphasis on focused growth near suburban transit hubs. Scenario is closer to historical trends than the other land use options considered.	T-2035 Network See description above.





Noah Berger

Preferred Scenario

In the spring of 2012, after conducting a second round of outreach to the public, local transportation agencies, cities and counties, and other stakeholders, ABAG and MTC developed the Jobs-Housing Connection Strategy. This land use scenario placed 78 percent of residential growth and 62 percent of job growth in Priority Development Areas throughout the region.

Drawing on the same outreach process and the results of a project-level transportation performance

assessment (see Chapter 5), the two agencies also developed the Preferred Transportation Investment Strategy. The Jobs-Housing Connection Strategy and the Preferred Transportation Investment Strategy (displayed in Table 8) combined to form the draft Plan Bay Area, which was released in March 2013. The final Plan Bay Area was adopted by MTC and ABAG in July 2013. The main components of the plan are described in detail in chapters 3 and 4. The Plan Bay Area performance results are presented in Chapter 5.

TABLE 8: Preferred Scenario (Plan Bay Area)	
Land Use Pattern	Transportation Network
Jobs-Housing Connection Strategy <ul style="list-style-type: none">• Focuses 78 percent of new housing and 62 percent of new jobs in Priority Development Areas.• Reduces greenhouse gas emissions, limits growth outside of the region’s core, and preserves natural resources and open space.	Preferred Transportation Investment Strategy <ul style="list-style-type: none">• Devotes 87 percent of funding to operate and maintain existing transportation network.• Directs remaining funding to next-generation transit projects and other high-performing projects; to programs aimed at supporting focused growth and reducing GHG emissions; and to county-level agencies for locally designated priorities.



Karl Nielsen

Plan Bay Area Prompts Robust Dialogue on Transportation and Housing

Developing a multibillion dollar, long-range plan for the nine-county San Francisco Bay region is not a simple task. It is a three-year process involving four regional agencies, nine counties, 101 towns and cities, elected officials, planners, community-based organizations, the public and other stakeholders. The many moving parts include statutory and voluntary requirements, goal-setting, financial projections, calls for projects, project evaluation, forecasting, measuring, methodologies and more. Despite all this complexity, public participation is critical to ensure an open, democratic process, in which all interested residents have the opportunity to offer input and share their vision for what a vibrant, livable Bay Area will look like decades from now.

Early on in the development of Plan Bay Area, MTC and ABAG set benchmarks for involving a broad cross-section of the public. With hundreds of meetings completed and thousands of comments logged, the agencies can point to a number of indicators that show an active process. Full details are included in supplementary reports, *Plan Bay Area Public Outreach and Participation Program* (multiple volumes, listed in Appendix 1) and *Government to Government Consultation with Native American Tribes*.

- Three statistically valid telephone polls conducted in 2011, 2012 and 2013 reached out to some 5,200 Bay Area residents from all nine counties.
- Twenty-nine well-attended public workshops or hearings (at least three in each Bay Area county) attracted over 3,000 residents. A vocal contingent of participants at the public meetings expressed strong opposition to regional planning in general and to Plan Bay Area in particular.
- Eight public hearings were held in 2012 and 2013 in conjunction with development and review of the companion Plan Bay Area Draft Environmental Impact Report (DEIR) and drew another 400 participants.
- MTC and ABAG developed partnerships with community organizations in low-income communities and communities of color to conduct community surveys (1,600 completed surveys in spring 2011; 10 focus groups with 150 participants in winter 2012; and an additional 12 focus groups conducted in the spring of 2013 with 180 participants).
- Throughout the planning process, ABAG and MTC hosted meetings with local elected officials, local planning directors and officials from congestion management and transit agencies.
- An active web and social media presence resulted in some 356,000 page views by 66,000 unique visitors to the OneBayArea.org website since its launch in April 2010, and some 1,300 individuals participated in a January 2012 “virtual public workshop.” Another 90 comments were submitted on the draft plan via an interactive online comment forum.
- Release of the draft plan and DEIR drew 1,250 residents to county-based meetings that included an “open house” where participants could view displays and ask questions, followed by a public hearing. A total of 385 people spoke, and another 140 completed comment forms provided at the public hearings.
- A total of 587 letters and emails were submitted on the draft plan and DEIR. All correspondence, public hearing transcripts and comment forms can be viewed at OneBayArea.org.



2

The Bay Area in 2040



Noah Berger

Chapter 2

The Bay Area in 2040

The Association of Bay Area Governments and the Metropolitan Transportation Commission track and forecast the region's demographics and economic trends to inform and guide Plan Bay Area investments and policy decisions.

The forecasts highlighted in this chapter reflect the best picture we have of what the Bay Area may look like in 2040, so that today's decisions align with tomorrow's expected transportation and housing needs. These forecasts form the basis for developing the regional land use plan and transportation investment strategy for Plan Bay Area.

This chapter explains the process used to develop the Plan Bay Area growth forecasts, and it describes the most recent planning assumptions used to develop the forecasts, including local general plans and other factors. It also looks at three main demographic categories that informed development of the plan: employment, population and housing.



Transbay Joint Powers Authority

What the Forecasts Tell Us:

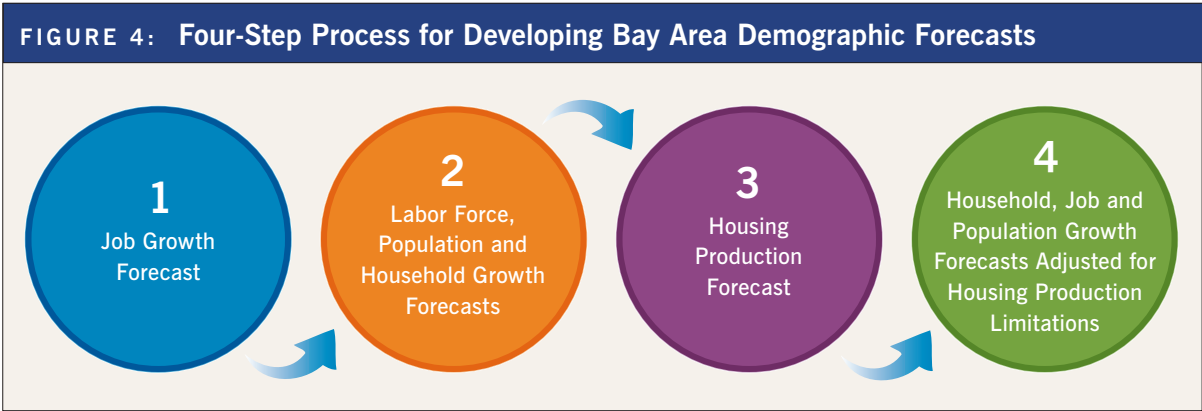
- Between 2010 and 2040, the nine-county San Francisco Bay Area is projected to add 1.1 million jobs, 2.1 million people and 660,000 homes, for a total of 4.5 million jobs, 9.3 million people and 3.4 million homes.
- Substantial shifts in housing preferences are expected as the Bay Area population ages and becomes more diverse.
- As the Bay Area continues to recover from the lingering effects of the Great Recession, certain economic trends and indicators will likely rebound. For example, strong job growth is expected in the professional services, health and education, and leisure and hospitality sectors. Early indicators also suggest that the regional housing market is showing signs of recovery.



Noah Berger

Forecasting the Region’s Population, Employment and Housing

The Association of Bay Area Governments employed the Center for Continuing Study of the California Economy (CCSCE) to provide national, state and regional employment and population forecasts. The agency also hired Karen Chapple of the University of California, Berkeley, to provide a housing analysis and estimates as inputs to the ABAG housing forecast. The Metropolitan Transportation Commission employed the consulting firm Strategic Economics to provide industry-sector locational preferences, which were used as inputs to the ABAG land use forecast and Sustainable Communities Strategy.



A Four-Step Process

The Association of Bay Area Governments developed the demographic forecasts by following four steps (Figure 4):

- Potential Job Growth:** Job growth by 2040 for the Bay Area was estimated as a share of the U.S. Bureau of Labor Statistics’ national growth projections, reflecting the difference in 2010 between national and regional labor force participation in various economic sectors, such as the professional services and retail sectors. This analysis was performed by the Center for Continuing Study of the California Economy.
- Potential Population and Household Growth:** The job growth forecast determines the population and number of households, as well as household income levels. ABAG, in consultation with CCSCE, translated the Bay Area job growth projection into labor force, total population and household forecasts. These forecasts were based on labor force participation rates and the number of persons per household by age and race cohorts.
- Housing Production:** ABAG, in consultation with Prof. Karen Chapple at UC Berkeley, estimated regional housing production by 2040 based on past housing production levels, projected household income, and new policies and programs to support housing production in Priority Development Areas (PDAs).

4 Feasible Job, Population and Household

Growth: ABAG adjusted for housing production limitations by 2040 that influence the number of workforce households that can be accommodated in the region. These housing production limitations, in turn, limit job growth in the region and reduce total population growth.

Assumptions

The overall regional growth forecast for Plan Bay Area relies on the following main assumptions:

- The Bay Area and national economies will be healthy, with an average unemployment rate of 5 percent or less and reasonably sufficient housing production for the workforce.
- A stronger link will be made between jobs and housing in locations sought by the workforce.
- Adjustments to the job growth forecast are needed to account for the region’s expected level of housing production given historic trends and the constraints of an infill growth development pattern.
- The region will continue to receive historical levels of public funding for housing production.

For additional technical information on the regional forecasting methodology and distribution, see the Forecast of Jobs, Population and Housing, listed in Appendix 1.

Snapshot of the Bay Area, 2010–2040

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. Two major demographic changes shape the forecast of household and job growth: the increase in the senior population and the increase in the Latino and Asian populations. The number of jobs is expected to grow by 1.1 million between 2010 and 2040, an increase of 33 percent. 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. (See Table 9.) While robust, this projected rate of growth is actually slower than other metropolitan regions in California and also is slower than the Bay Area's pace of growth in the 1970s and 1980s.

Population Forecast

The population forecast was derived from ABAG's job growth forecast. (See "Employment Forecast," page 34.) It also analyzed the existing popula-

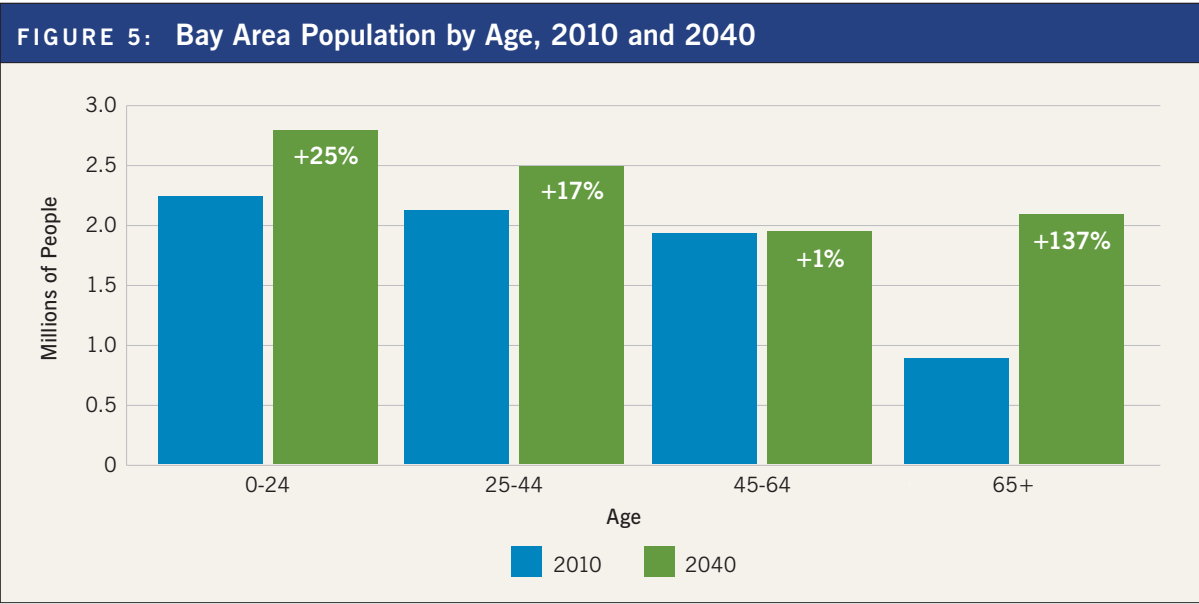


Karl Nielsen

tion and its labor force participation rates by age cohort and race. Beyond births and deaths, it was assumed that the rate of in-migration to the region will remain the same from 2010 to 2040. Incentives to produce housing close to job centers will result in some increases in the number of households and total population. (For population growth by county, see Table 12, page 40.)

TABLE 9: Bay Area Population, Employment and Housing Projections, 2010–2040				
Category	2010	2040	Growth 2010–2040	Percent Change 2010–2040
Population	7,150,740	9,299,150	2,148,410	+30%
Jobs	3,385,300	4,505,220	1,119,920	+33%
Households	2,608,020	3,308,110	700,090	+27%
Housing Units	2,785,950	3,445,950*	660,000	+24%

*2010 and 2040 values include seasonal housing units.
Source: ABAG, 2013



Sources: 2010 Census, California Department of Finance, ABAG

Aging Baby Boomers

Between 2010 and 2040 the Bay Area's population is expected to grow significantly older. Today, people who are 65 and over represent 12 percent of the total population, but by 2040 the share will increase to 22 percent. Put another way, the number of seniors will more than double from under 900,000 today to nearly 2.1 million by 2040. (See Figure 5.) By contrast, the segment of population aged 45–64 will grow by less than 1 percent, and will shrink from 27 percent of the total population today to 21 percent by 2040. The projected increase in the senior population will cause the overall labor force participation rate to fall, even as more people work beyond the age of 65. By 2040,

50 people out of every 100 in the Bay Area are projected to be in the labor force, compared to 52 people out of 100 in 2010.

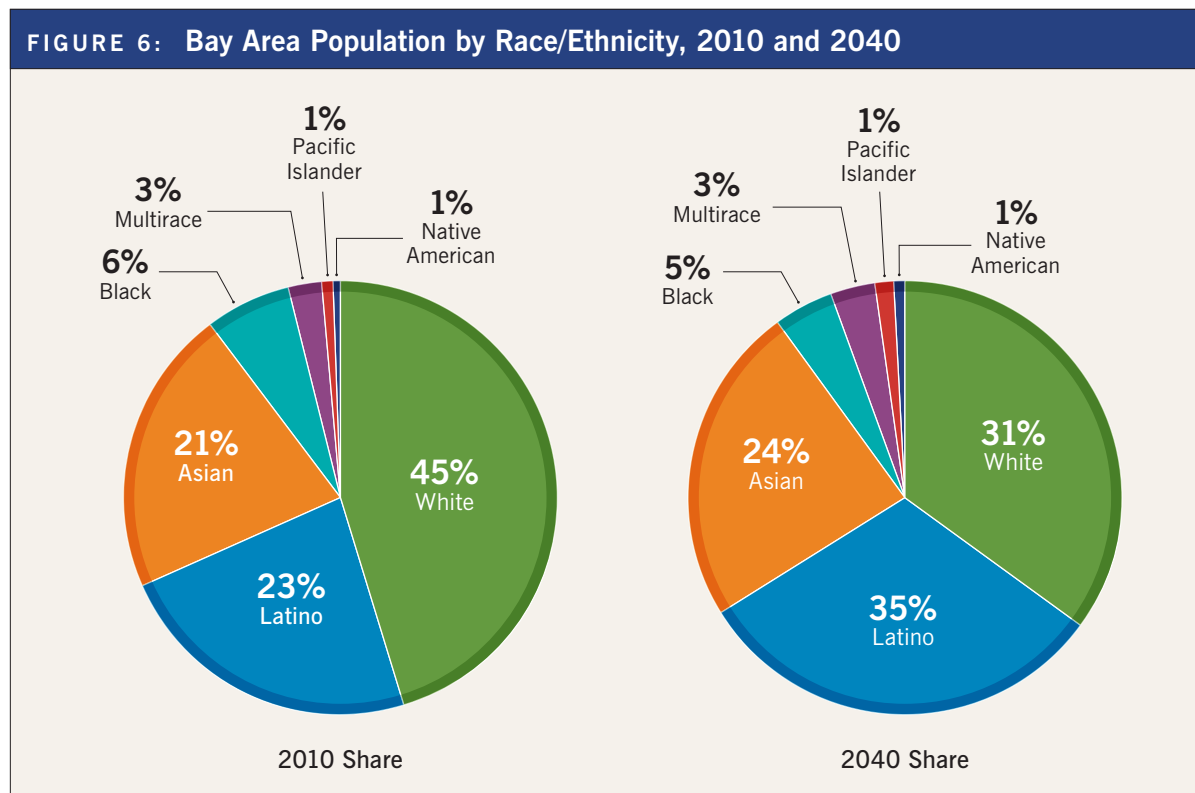
Younger-age segments of the population will increase in size substantially, but will represent a slightly smaller share of total population in the future due to the large number of aging baby boomers. The number of people aged 25–44 will increase by 17 percent or nearly 370,000, while the number of people aged 24 and younger will increase by 25 percent or over 550,000.

Increased Racial and Ethnic Diversity

By 2040 the population will become substantially more racially and ethnically diverse. (See Figure 6). 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. According to the California Department of Finance, the Latino and Asian populations also form multigenerational households at a higher rate than the general population. (See "Housing Forecast," page 38.)



Image Source



Sources: 2010 Census, California Department of Finance, ABAG

In contrast, the share of non-Hispanic whites will drop sharply from approximately 45 percent of today's population, to about 31 percent in 2040. The African-American segment of the population also is expected to decline slightly, dropping from 6 percent to 5 percent, while other demographic groups are expected to maintain a similar share of the population in the future as they do today.

Employment Forecast

The Association of Bay Area Governments forecasted regional employment by industry sector utilizing an analysis of the Bay Area's competitiveness by industry in relation to the state and national growth forecast conducted by CCSCE. The analysis took into account the Bay Area's concentration of knowledge-based industries, research centers and universities; the presence of a highly educated and international labor force; expanding international networks serving the global economy; and the overall diversity of the regional economy.



Lawrence Migdale

These fundamental assets underpinning the Bay Area economy still are strong. While it is true that the region has not recovered all jobs lost since the "dot-com bubble" popped in 2000, the so-called "jobless growth" of the last decade was a national phenomenon not limited to the Bay Area. Furthermore, various parts of the regional economy are on the mend. For example, the Bay Area led California job growth in 2012 with 91,400 new jobs, a nearly 3 percent increase from 2011 and more than twice the nationwide average, according to Bloomberg News ("Google, Facebook lead Bay Area jobs," Jan. 27, 2013). Based on the above factors and strong fundamentals, Bay Area employment is forecast to grow at a slightly faster rate than that of the nation as a whole.

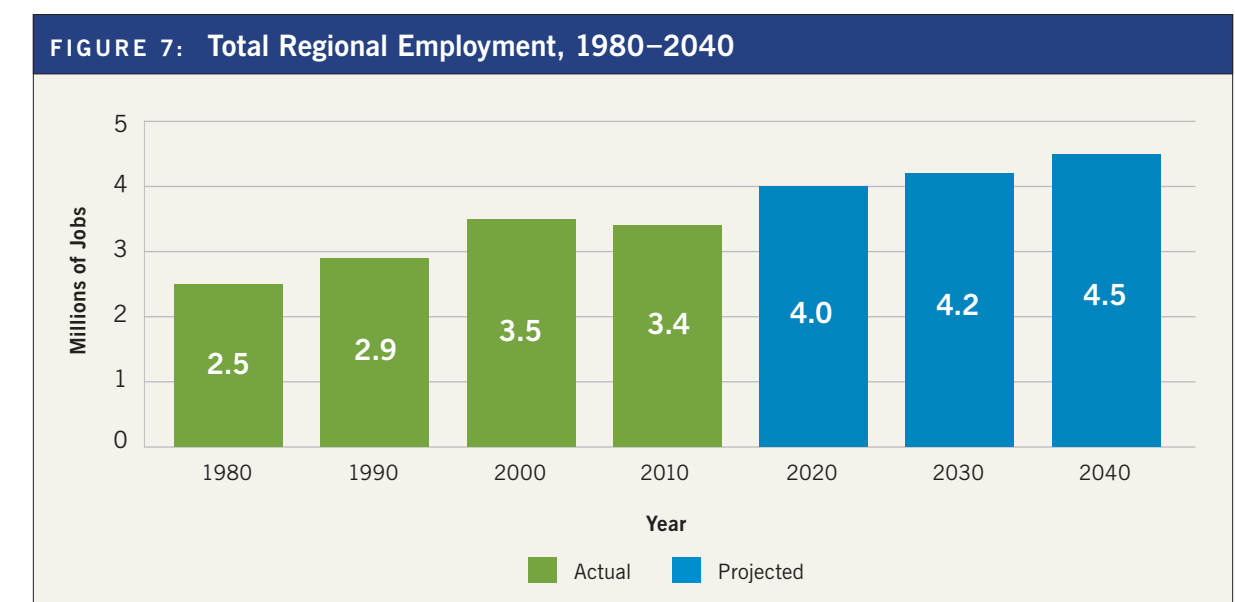
Substantial numbers of jobs are expected to be created between 2010 and 2040 (Figure 7). More than half of the projected 1.1 million new jobs are expected to be created between 2010 and 2020, which includes the recovery of close to 300,000 jobs lost during the Great Recession that began in 2007. The gain of 1.1 million jobs does not translate directly into new office, commercial or industrial

construction. About one-third of these jobs could potentially be accommodated within existing offices and facilities, given current vacancy rates. Many of these jobs are expected to be filled by currently unemployed or underemployed individuals. From 2020 to 2040, the rate of job growth is forecast to slow in comparison to the 2010–2020 period.

The job growth forecast was adjusted based on the difficulties in supplying sufficient housing in the Bay Area to meet the need for workforce housing within reasonable commute times. The historic imbalances in the Bay Area housing market have resulted in excessively high housing prices in locations close to job centers. Employers have consistently cited these imbalances as the most difficult aspect of recruiting and retaining high-quality employees in the region.

Employment Growth Highest in Professional Services, Health and Education, and Leisure and Hospitality Economic Sectors

Major industry job trends in the Bay Area over the next 30 years are expected to largely mirror national trends. Nearly 73 percent of total employment growth is projected to be in the professional services,



Sources: 1980 Census, California Department of Finance (1990–2000), ABAG (2010–2040)

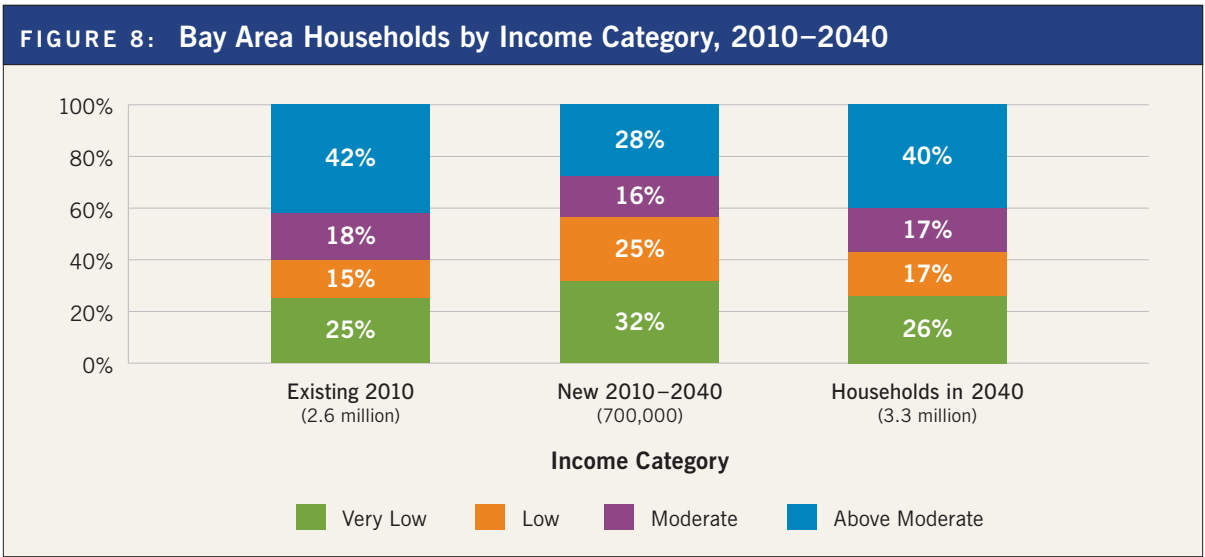
The Bay Area led California job growth in 2012 with 91,400 new jobs, a nearly 3 percent increase from 2011.

health and education, and leisure and hospitality sectors. The national trends of slower growth in retail and finance are also expected in the Bay Area. Construction jobs are expected to almost regain pre-recession levels by 2020 and to increase by 2040. Although this is a substantial gain compared to 2010, it is driven primarily by a slow return to more normal construction levels in the region. Manufacturing jobs are projected to remain more or less stable through 2040. (See Table 10.)

TABLE 10: Bay Area Employment by Sector, 2010–2040, Ranked by Job Growth				
Sector	2010	2040	Growth (Loss) 2010–2040	Percent Change 2010–2040
Professional Services	596,700	973,600	376,900	+63%
Health and Education	447,700	698,600	250,900	+56%
Leisure and Hospitality	472,900	660,600	187,600	+40%
Construction	142,300	225,300	82,900	+58%
Government	499,000	565,400	66,400	+13%
Retail	335,900	384,400	48,500	+14%
Finance	186,100	233,800	47,700	+26%
Information	121,100	157,300	36,300	+30%
Transportation and Utilities	98,700	127,400	28,600	+29%
Manufacturing and Wholesale	460,200	456,100	(4,100)	-1%
Agriculture and Natural Resources	24,600	22,700	(1,900)	-8%
All Jobs	3,385,300	4,505,200	1,119,900	+33%

Sources: California Center for Continuing Study of the California Economy, ABAG

Industry sectors contain a wide spectrum of wages, which correspond to the skill levels and training needed for different occupations. This is especially true for the two sectors with the highest projected growth: professional services and health and education. For example, fewer than half the jobs in professional services require the higher levels of education and specialization that one might consider typical for this sector. The construction, manufacturing and wholesale sectors have significant numbers of jobs in middle-income occupations, while the leisure and hospitality (which includes hotels) and retail sectors have higher shares of low-income jobs. While there are substantial opportunities in fast-growing sectors with large numbers of high-income jobs, these sectors also will create middle- and low-income jobs. For example, the professional services sector will create both high-income jobs, such as a vice president of sales, and lower-income jobs, such as a file clerk.



Sources: U.S. Census; Karen Chapple and Jacob Wegmann, *Evaluating the Effects of Projected Job Growth on Housing Demand*, 2012

Household Income Forecast

The household income forecast was based on projected jobs by sector, associated occupations and wages, and trends in the geographic distribution of households by income level over the past several decades. Wages were calculated based on the occupations within each industry group. Other income, such as capital gains from stock market investments, was estimated from state and national forecasts as well as from past regional trends. The geographic distribution of households by income was estimated from the U.S. Census.

Today, about 40 percent of the existing 2.6 million households in the Bay Area (or just over 1 million) fall into the very-low and low-income groups, according to U.S. Census figures. Due to the growth in leisure and hospitality, retail and other low-income jobs (see Table 10), the number of people in very-low and low-income groups is projected to increase from 40 percent of households to 43 percent of households by 2040, while those in the moderate and above-moderate categories will decrease from 60 percent to 57 percent of households (see Figure 8).



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