



JOBS-HOUSING CONNECTION SCENARIO

DRAFT

March 2012



Association of Bay Area Governments



METROPOLITAN
TRANSPORTATION
COMMISSION

TABLE OF CONTENTS

INTRODUCTION

Plan Bay Area	2
Building Upon Local Plans and Strategies	4

REGIONAL TRENDS

Current and Past Trends	6
Regional Growth by 2040	8
Employment Trends by 2040	11
Housing Trends by 2040	16

JOBS AND HOUSING BY PLACE, 2010 - 2040

The Process to Date	21
The Approach	23
Growth Distribution	25

POLICIES AND STRATEGIES - BUILDING COMPLETE COMMUNITIES

Jobs-Housing Connection Scenario Benefits	33
Regional Land Use Programs	34
Proposed Policy Framework	38
Next Steps	39

APPENDICES

1	Housing Distribution by Jurisdiction
2	Employment Distribution by Jurisdiction
3	Maps of Priority Development Areas by County
4	Summary of Regional Projection Economic and Demographic Assumptions
5	Housing Distribution Methodology Summary
6	Employment Distribution Methodology Summary
7	Resources

Introduction

Residents of the Bay Area, one of the most impressive and productive estuaries in the world, have access to a rich mix of ecological, ethnic, and cultural diversity. The seven million of us who currently call this nine-county region home have a strong interest in retaining and enhancing this wealth of features for our children and grandchildren. We must plan to ensure that these precious resources will be preserved for future generations and that our economy will continue to be uniquely intertwined with our natural environment.

The Bay Area has supported a successful concentration of global business leaders in high technology and knowledge-based industries. These industries, combined with our role as a center of trade and investments from across the Pacific Rim, have drawn major venture capital and a highly skilled labor force into the region. While the Bay Area has retained many of its major economic assets that will allow recovery from the current recession, the economic downturn is still being felt by many residents. Our most pressing issues today are the sluggish national and regional economy, sharp declines in industrial activity, the needs of a growing senior population, and the widening affordability gap. To prepare the Bay Area to overcome these issues and promote future growth, the region requires an effective strategy based on thoughtful analysis of both on-going and new challenges facing the region.

Understanding our development challenges begins with an assessment of how our infrastructure systems, such as transportation, water, housing, and neighborhoods, will be able to support adequate levels of economic growth. Prior generations in the Bay Area built the infrastructure to accommodate our current economy. Several counties passed General Obligation bonds to raise property taxes and build BART. Bridge tolls were increased to maintain and seismically upgrade our lifeline bridges, along with investing in additional regional transit capacity along bridge corridors. Local jurisdictions passed bond and property tax measures to maintain local roads and special districts raised fees to provide services to new development. These actions were essential for the Bay Area to grow into the global economic center it is today.

However, almost all of our existing public investment resources today are needed to simply operate and maintain the current system, especially the transportation system. Preparing for future job growth will require ever greater efficiency and creativity in the allocation of our public resources. The task today is to grow the economy by maximizing the urban infrastructure investments that have already been made to date, and by

recognizing where and when new investments are needed to make our infrastructure as efficient as possible. Local, state, and federal policies over this time period will need to bring together the resources necessary to accommodate this growth in support of a region so vital to the national economy. The challenge ahead for all of us is complex and we cannot assume that our economic growth and our quality of life will continue for current and future generations without strategic planning and investment to protect our future.

Plan Bay Area

To address this complex challenge, regional agencies, local governments, transportation agencies, community-based organizations, with input from members of the public, have partnered to develop Plan Bay Area—one of our region’s most comprehensive planning efforts to date. Plan Bay Area 2040 is the umbrella for the Sustainable Communities Strategy, a new process identified in California’s regional planning law (Senate Bill 375, Steinberg) to link the development of a land use plan to the transportation investments outlined in the Regional Transportation Plan (RTP). This coordinated planning process encourages participants to come together to develop a vision for the Bay Area’s future and outline a strategy for allocating scarce resources. The goal of the Plan Bay Area effort is to ensure that this growth not only strengthens our economy, but also enhances our quality of life, including the ability to move freely around the region, retain the natural beauty of the area, and provide quality schools, services, and security to Bay Area residents.

Plan Bay Area proposes a long-term growth strategy that articulates how the region can capture its economic potential by providing more housing and transportation choices to Bay Area residents and workers. This focus on appropriately located and financed land development would curb major increases in highway congestion, which has the potential to significantly constrain economic growth and trigger many other negative impacts on our quality of life, public health, and time spent with our families.

Through investments in local communities, Plan Bay Area addresses the needs of current generations while also preparing for the needs of future generations. The plan recognizes the Bay Area’s many diverse communities and emphasizes investing in existing neighborhoods according to the needs and visions of each community. The plan seeks to provide an array of housing types and transportation choices and envisions a pattern of growth and investment tailored to each of these communities where transit, jobs, schools, services and recreation are conveniently located near people’s homes. It also seeks to identify the strategies and policies beyond transportation and land use changes that will help foster complete communities—including support

for improved public schools, expanded parks and recreation facilities, and efforts to make neighborhoods safer and reduce crime.

Increasing transportation choices makes it easier for people to get around, whether commuting, going to school, shopping, recreating, or visiting friends and family. Neighborhoods that are designed to reduce dependency on the automobile promote healthier communities through reduced pollution and cleaner air. Improving bicycle circulation and enhancing the walking environment with expanded sidewalks, street trees, and pedestrian-scaled lighting increases opportunities for people to be outdoors and physically active as they go about everyday tasks. In addition to addressing the mobility of people, Plan Bay Area also recognizes goods movement corridors and key industrial lands, and highlights strategies to ensure that these essential resources continue to support the regional economic diversity and vitality.

Today the region provides neighborhoods with a wide variety of housing types, but affordability remains a challenge for low and moderate income households. In addition, young professionals and young families along with the growing senior population are driving changes in housing preferences and demanding more options closer to services. These trends are addressed in Plan Bay Area by focusing on strategic investments for the production of affordable housing and the preservation of homes that are affordable to low- and moderate-income households. In a shift from recent decades, Plan Bay Area encourages housing development—particularly affordable housing—in locations near transit and services to lower the combined housing and transportation costs for households in these neighborhoods. This allows households to spend money on other essential needs such as food, health care, or education.

By concentrating new development in existing neighborhoods, Plan Bay Area helps protect the region's natural resources, water supply, and open spaces by reducing development pressure on these areas. This allows the region to consume less energy, reducing household costs and the emission of greenhouse gases. The region's greenbelt of agricultural, natural resource, and open space lands is a treasured asset that both contributes to the region's quality of life and supports regional economic development. In contrast to previous trends that saw these lands consumed for development, Plan Bay Area encourages the retention of these lands by directing nearly all non-agricultural development within the urban footprint and by supporting the continuation of agricultural activities in rural communities.

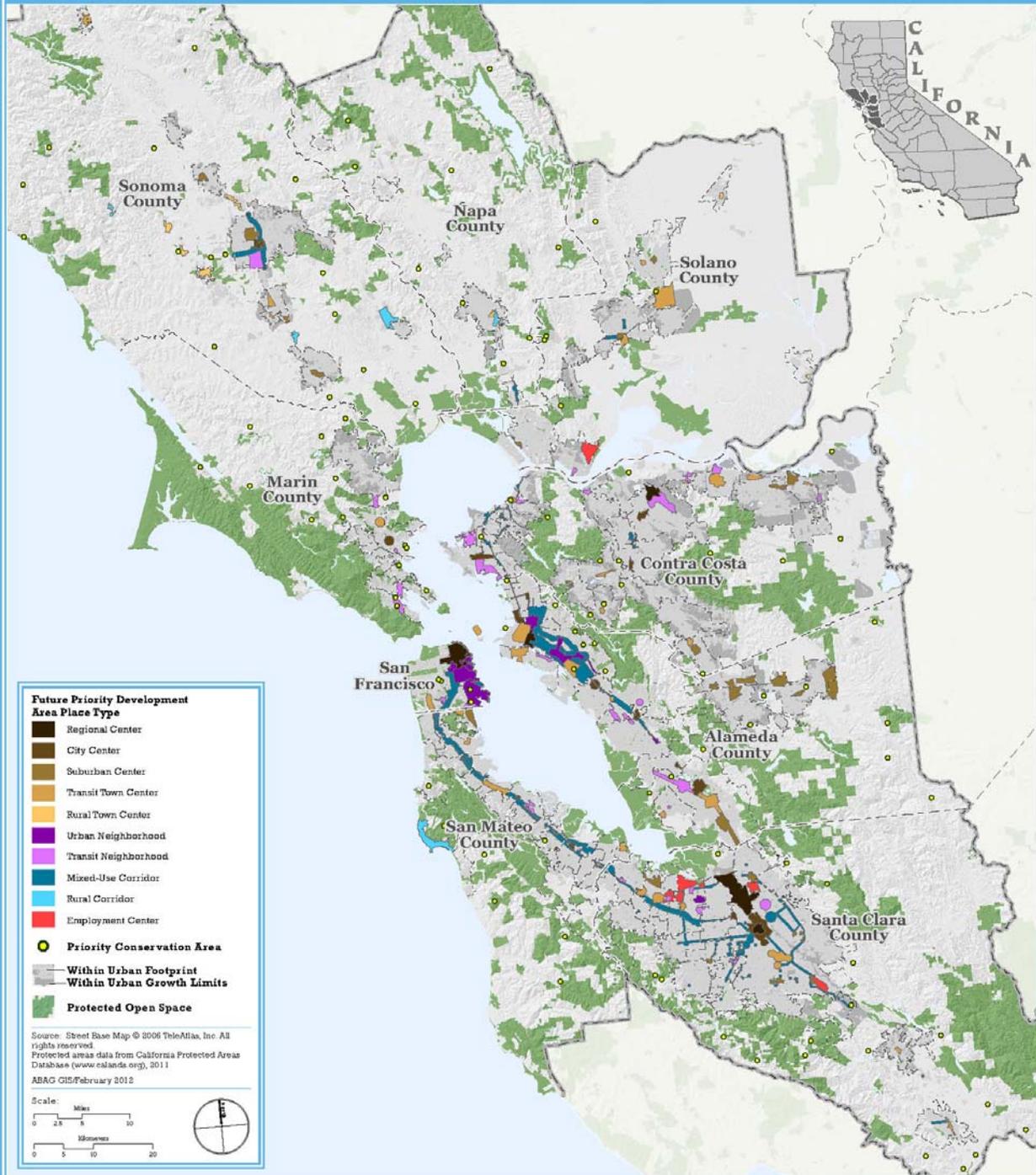
Thus, the Bay Area's Sustainable Communities Strategy (SCS) provides a range of potential benefits—for the whole region as well as local communities. By focusing on land use and transportation strategies, Plan Bay Area improves health benefits for residents and employees, supports economic competitiveness, promotes greater housing affordability, and protects the region's natural resources.

Building Upon Local Plans and Strategies

The SCS builds upon a rich legacy of integrative planning in the Bay Area. For over a decade, the region and its local governments have been working together to encourage growth of jobs and production of housing in areas supported by amenities and infrastructure. In 2008, ABAG and MTC created a regional initiative to support these local efforts called FOCUS. Through FOCUS, local governments have identified Priority Development Areas (PDAs) and Priority Conservation Areas (PCAs).

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 urban settings, they were later broadened to address employment centers and rural settings. Local jurisdictions have defined the character of their PDAs according to existing conditions and future expectations as regional centers, city centers, suburban centers, transit centers or rural centers, among other place types. PCAs are regionally significant open spaces for which there exists a broad consensus for long-term protection. PDAs and PCAs complement one another because promoting compact development within PDAs takes development pressure off the region's open space and agricultural lands.

In a departure from previous regional growth scenarios, Plan Bay Area is designed around places for growth identified by local jurisdictions. Many Bay Area jurisdictions have worked in partnership with MTC and ABAG to plan and advance the implementation of Priority Development Areas as complete communities in recent years. The planning processes for these key infill, transit-oriented neighborhoods are community-based and involve hard work to address a complex range of local goals and issues. Plan Bay Area is designed to advance dialogue around a sustainable regional growth pattern that recognizes local aspirations and the unique characteristics of our region's neighborhoods and communities. This is not a simple compilation of local proposals; rather it is the result of an ongoing dialogue on enhancing community and regional qualities for future generations.



Future Place Type for Priority Development Areas



Regional Trends

The San Francisco Bay Area has one of the strongest economies in the world given the region's leadership in high technology and innovation, international networks, educational and research institutions, and highly skilled labor force. This economic strength added to its natural resources, vibrant communities, and cultural diversity establishes a good platform to support a healthy region and communities into the future. This is a central focus of Plan Bay Area.

Current and Past Trends

Today, it is challenging to envision solid and sustained economic growth given the impact of the Great Recession on jobs, housing, mortgages, education and health care among other essential dimensions of life. By the end of 2007 the region was caught in a major national recession triggered by the financial and housing crisis. This recession has been deep and long, particularly in the State of California. Almost 300,000 jobs were lost between 2007 and 2010 in the Bay Area. During the same time frame, venture capital declined by about 20 percent. (Levy 2012) In 2008 the region had about 37,000 homes that experienced foreclosure and 154,000 more foreclosures are expected during the rest of this decade. (Chapple 2012)

The national financial and housing crisis had a sharp impact in the Bay Area where access to affordable housing was already a major challenge. Between 2008 and 2009, California and the nation's median home sale prices saw dramatic declines. Historically, annual average housing production in the Bay Area has resulted in shortfalls of about 30 percent, according to the California Department of Housing and Community Development (State of California 2000). This trend was temporarily reversed during the decade of the 2000s, when the market overpriced housing, spurring construction in areas of the region distant from job centers. The legacy of the 2000s boom remains with us today, not just in the form of high housing vacancy rates (6.4% in 2010) due in part to foreclosed housing stock, but also the specter of foreclosures yet to come. (Chapple 2012)

This recession resulting from the financial crisis has impacted people and places much more than what is reflected in the measures of economic output or market values. However, given the Bay Area's diverse economic assets, economists assert that a steady recovery of the Bay Area is already underway. (Levy 2012; Bay Area Council Economic Institute 2011) By the end of 2011 the San Jose metropolitan statistical area and

Silicon Valley were experiencing job growth that, while modest relative to recovery periods historically (3 percent), was much higher than the national average. (Levy 2012) Most of this job growth is driven by high technology companies such as Google, Apple, Facebook, and Zynga among others. During 2011 unemployment in the San Jose Metropolitan Area had already declined from 10.5 to 8.6 percent. Many other parts of the Bay Area, particularly inland communities furthest from Silicon Valley have not yet displayed signs of economic recovery, but are expected to experience some growth in 2012 and 2013. (Bay Area Council Economic Institute 2011)

As the Bay Area recovers from this severe recession, two converging longer term trends are shaping the future of the region. The first trend is healthy but slower employment growth. Different from prior decades of major employment growth when Silicon Valley was established as a major knowledge center and producer of technology supported by a strong financial center in San Francisco, the upcoming decades will see more moderate growth, reflecting a more mature state and regional economy. This is a shift from outward expansion to redeveloping underutilized land in existing urbanized areas, and reflects an aging population and the pending retirement of the baby boom generation. As a result, the region is forecasted to only slightly exceed national employment growth rates.

The second trend is the shift from a dispersed employment and housing growth pattern toward more focused growth. Over the last 40 years the region experienced a pattern of major suburban employment growth and housing production. On housing production, major new subdivisions housed our population in new and small cities within and outside the region. By 2010, cities like Oakley, San Ramon, Brentwood, Windsor, Clayton, and Rohnert Park had grown 8 to 26 times their sizes in 1970. At that time the development of subdivisions was supported by the expansion of the highway transportation network. This suburban population provided a labor force for employment growth at suburban locations. Starting in the 1980s, office jobs moved from the San Francisco Financial District to new office parks in the East Bay or South Bay. At the same time, the growth of Silicon Valley perfected the office park model that was pursued in many other parts of the world, which in turn created more demand for suburban housing. The extension of the transportation system into the Tri-Valley and its proximity to low cost housing areas in the Central Valley further fueled the eastward movement of job growth. By 2010 only 16 percent of total regional employment was in San Francisco, a decline from 33 percent in 1975.

While this decentralization of jobs created new opportunities for many areas in the region, it also led to high levels of traffic congestion, increases in the cost of and time spent commuting, and the loss of agricultural lands and natural resources. This decentralized development pattern has been addressed in part through the development of policies and regulations to protect open space, including the creation of urban growth boundaries by local jurisdictions, and through investments in existing communities with transit access and proximity to a wide range of services, amenities, and employment opportunities. These initiatives are recognizing the value and scarcity of remaining resource lands and working to maintain the economic vitality of the region through investments that strengthen existing communities.

Regional Growth by 2040

Accounting for the strengths and assets of the region, a slower pace of growth than in previous decades, a lower share of the national economy, and a recovery from the recent recession, regional agencies forecast an increase of 1.1 million jobs, or 4.5 million jobs total, by 2040.¹

According to Steve Levy, from the Center for Continuing Study of the California Economy, the region could capture another 110,000 jobs of the total national growth. However, the total job growth is constrained by our ability to produce housing, which is ambitiously estimated at 660,000 new units by 2040. This is a higher level of housing production than that estimated by Karen Chapple, UC Berkeley, based on an assessment of previous housing production in the region, which estimates future housing production as low as 80% of existing levels, or less than 600,000.² (Chapple 2012)

¹ Compared to 2007, this is only an increase of 850,000 jobs.

² The affordable housing production challenge is particularly critical relative to infill development where established neighborhoods are revitalized with new development in the midst of existing communities, land values are high and planning and entitlement processes are often complex and costly. In addition, construction costs of multi-unit structures continue to escalate, particularly due to the cost of steel and other materials. Financing for infill development remains difficult and the “cost of money” remains relatively high due to the perceived riskiness of multi-family construction and the need for large chunks of capital up front. Urban infill development is also challenging due to the need to assemble sites and the extra costs for site preparation, as well as the extra regulatory hurdles in core areas, such as extensive design reviews. And most recently, there is a new threat of lack of institutional capacity to process housing applications, due to the dissolution of redevelopment agencies and the ongoing fiscal stress in local governments. (Chapple 2012)

This level of housing production of 660,000 will allow the region to accommodate 700,000 new households and 2.1 million people forecasted in the SCS through 2040. This also assumes that the rate of net in-commuting will remain at 2010 levels, and absorption of about 40,000 existing vacant units.

Table 1. Regional Totals, 2010 and 2040

	2010	2040	Growth 2010 - 2040
Population	7,151,000	9,299,000	2,148,000
Households	2,608,000	3,308,000	700,000
Housing Units	2,786,000	3,446,000	660,000
Jobs	3,385,000	4,505,000	1,120,000

The forecasted population growth of 9.3 million people by 2040 is based on forecasted regional employment growth shaped by national economic and demographic forecasts. (Levy 2012) The relationship of jobs to population was calculated by Steve Levy based on population characteristics.³ The population characteristics used in the scenario incorporate information from the 2010 Census and a statewide forecast produced by the California Department of Finance.⁴ Two major demographic changes shape the forecast of household and job growth: the increase in the senior population (more than half of the population growth is people over 55) and the increase in the Latino and Asian populations.⁵

These demographic changes lead to three major trends in the regional growth by 2040:

1. Increase in group housing: The increase in the senior population results in an increase in the amount of residential care facilities, which is a major component of group housing. More than 66,000 additional group housing residents are forecasted by 2040. This is a conservative estimate based on current conditions.

³ The Jobs-Housing Connection Scenario includes an adjustment of 0.7 percent higher employed residents than the numbers forecast by Levy. This adjustment is the result of retaining the 2010 in-commute ratio out to 2040.

⁴ The California Department of Finance assumes a statewide net migration averaging 177,000 per year, which represents 35% of the statewide total population growth. (State of California, Department of Finance, *Population Projections for California and Its Counties 2000-2050, by Age, Gender and Race/Ethnicity*, Sacramento, California, July 2007).

⁵ Latino and Asian populations projected to increase 11.9 and 2.4 percent respectively. This change is already reflected in the existing population, where the non-hispanic white population makes up 56% of 55-64 year-olds, while only making up 33% of 15-24 year-olds.

2. Decline in labor force participation: The overall labor force participation rate declines given the increase in the senior population, even with assumptions of an increased number of people working after 65. This means that, by 2040, 49.9 people out of 100 will be employed or looking for work, compared to 51.6 in 2010.
3. Increase in household size: The number of people per household is expected to increase from 2.69 in 2010 to 2.75 in 2040 as a result of the increase in the Latino and Asian population as well as the number and percentage of multigenerational households.

A summary of demographic assumptions is included in Appendix 4,

Figure 1. Population by Age, 2010 and 2040

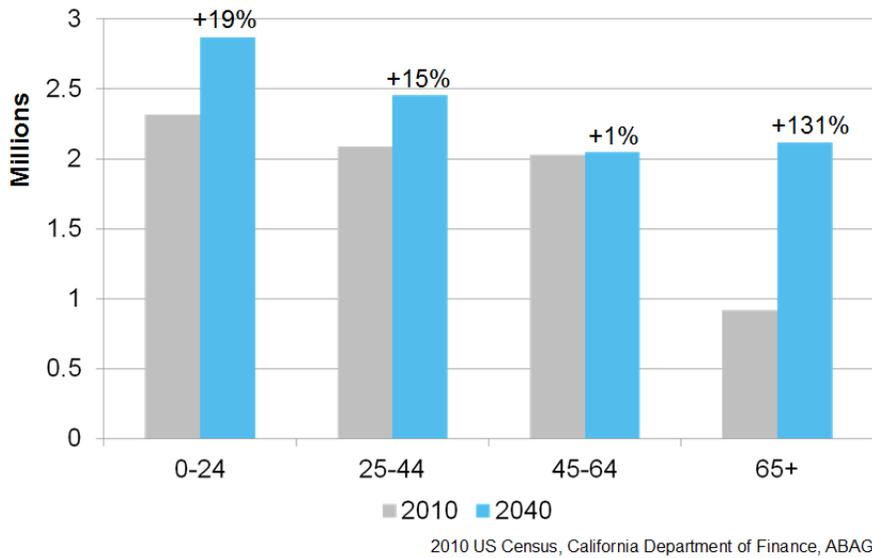
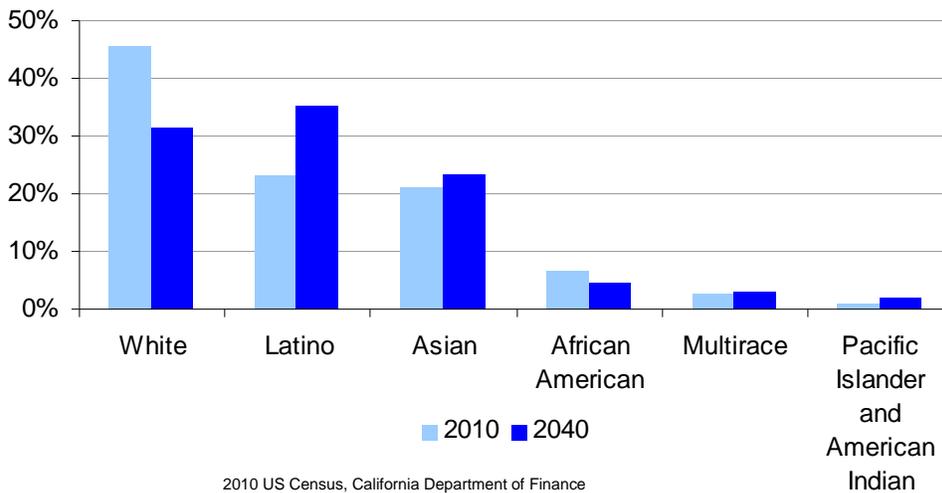


Figure 2. Share of Population by Race and Ethnicity, 2010 and 2040

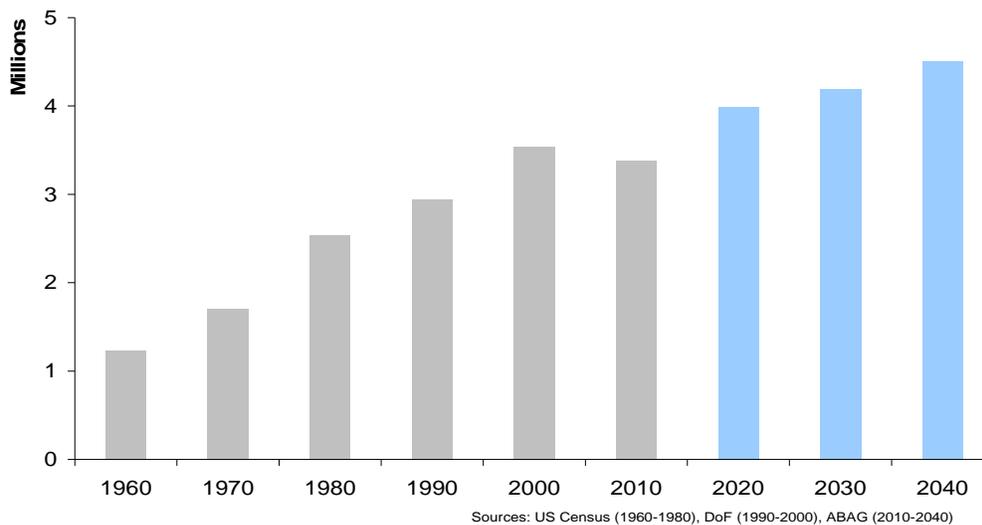


Employment Trends by 2040

The region is forecast to grow slightly faster than the nation. Over half of the 1.1 million job growth is expected to occur between 2010 and 2020, which includes the recovery of close to 300,000 jobs lost since 2007. Many of these jobs will be filled by currently unemployed or underemployed individuals. From 2020 to 2040, the rate of job growth is forecast to slow down as retiring Baby Boomers exit the labor force. (Levy 2012)

The growth of 1.1 million jobs does not translate directly into new office, commercial or industrial space. About one third of these jobs could potentially be accommodated within existing offices and facilities given current vacancy rates relative to higher job levels in 2000.

Figure 3. Regional Total Employment by Decade, Past and Future



Growth by economic sectors

The leading sectors of the regional economy are defined by those directly involved in knowledge production. This includes Professional Services, Information, Finance, and portions of the Health and Education sectors. They all show high growth rates. (See Table 2). They have become more specialized on the design and development of new products and information, outsourcing the manufacturing and general professional services components. These knowledge-based sectors are supported by a highly educated labor pool and provide high wage jobs. The Bay Area's labor force has the highest share of college graduates (44 percent) when compared to any other region in the country. (Levy 2012) These leading sectors have represented and will continue to represent a high share of the total regional growth of over one third of total jobs. Although the knowledge-based sectors define the overall pace of growth for the region, their success is supported by and advanced by a very diverse regional economy.

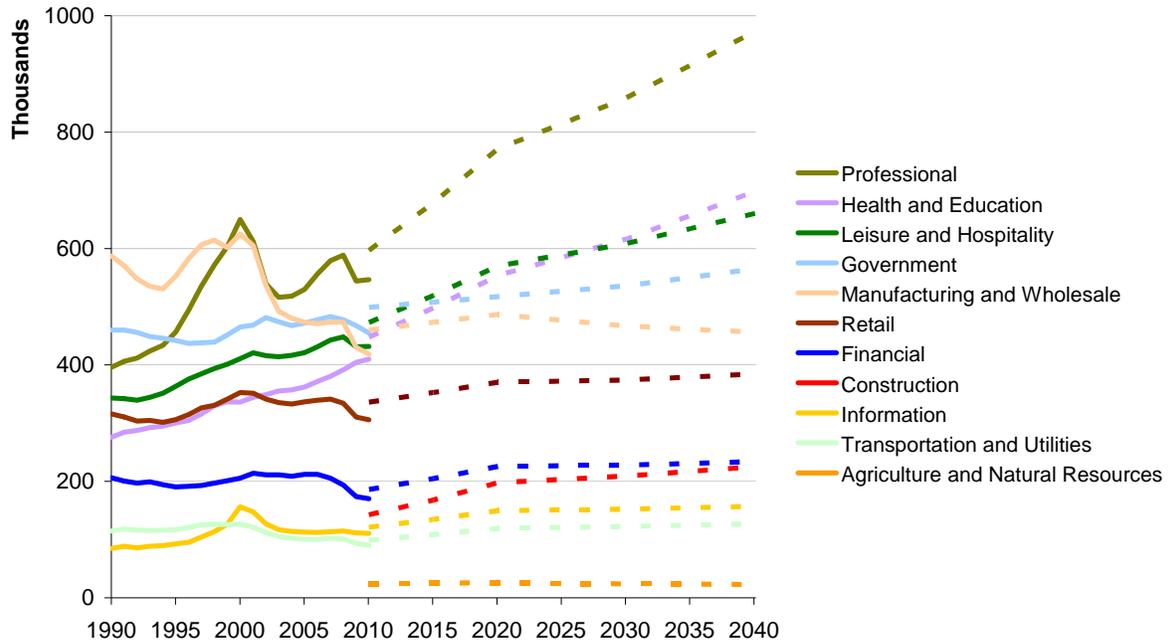
Health and Education and Leisure and Hospitality sectors have not experienced the very high job growth of Professional and Business Services, but have displayed steady growth even through periods of overall economic decline. Construction is expected to experience significant employment gains, particularly through the recovery period.

Manufacturing and finance jobs have contracted over the last 30 years. Much of the region's traditional manufacturing employment has relocated to low cost labor regions in Asia and Latin America. More recently high tech manufacturing has also relocated out of Silicon Valley to lower cost locations. Increases in productivity through information technology and automation have impacted all sectors, but manufacturing and finance in particular. While the region continues to be an important financial center, finance-related jobs have been eliminated or relocated out of the Bay Area. Manufacturing and Finance are not expected to contribute much to job growth but will remain stable sectors in the regional economy. The decline of manufacturing and finance has resulted in a loss of some middle-income jobs for the region. This is compounded by the polarized incomes between the highly specialized knowledge-based jobs and service jobs. Similarly, the agricultural sector, where food production is combined with high value tourism, organic markets, and farmers markets, has incorporated a wide range of services and exchange networks with a resulting higher productivity for many businesses. However, the number of jobs is expected to remain the same or decline.

Table 2. Total Employment and Growth by Sector, 2007, 2010 and 2040

Sector	Total			Growth	
	2007	2010	2040	2010-2040	2007-2040
Professional	633,023	596,719	973,617	376,897	340,594
Health and Education	420,055	447,730	698,641	250,910	278,586
Leisure and Hospitality	484,326	472,925	660,562	187,636	176,235
Government	529,426	498,993	565,419	66,426	35,993
Information	123,533	121,067	157,327	36,260	33,795
Transportation and Utilities	111,332	98,708	127,355	28,647	16,023
Financial	219,396	186,073	233,805	47,732	14,409
Construction	211,226	142,336	225,272	82,936	14,046
Retail	373,757	335,934	384,412	48,478	10,655
Agriculture and Natural Resources	27,887	24,650	22,719	-1,931	-5,168
Manufacturing and Wholesale	519,839	460,164	456,090	-4,075	-63,750
All Jobs	3,653,800	3,385,300	4,505,218	1,119,918	851,418

Figure 4. Employment by Sector, Past and Future



Sources: EDD (1990-2010), ABAG (2010-2040)

Note: Higher ABAG numbers in 2010 reflects inclusion of self-employed and domestic workers.

Growth trends by places

Economic sectors organize jobs by activities and products such as sales, computer services, food preparation, or health care, among many others. Each of these sectors includes many different subsectors and each subsector can occupy a wide range of buildings and places. For example, the professional and business services sector include accounting, graphic design, testing laboratories, telephone services, janitorial services, waste collection, among many others. These businesses can occupy an office, an industrial laboratory, a treatment facility, among many other type of buildings. Even within a particular type of business we can find many building types. A graphic designer's office can be a home office in Orinda or a major portion of a high rise building in San Francisco's South of Market District. In addition, economic activities are constantly changing their space requirements. A printing company that retains the design component and outsources the actual production would only require a small office. Thus, in order to forecast the regional employment distribution, the sections below summarize key land use trends that capture the ongoing spatial changes as well as changes in the labor force composition and workers' preferences. Overall trends suggest a transition toward a more focused employment growth pattern for the region. This focused growth takes various forms across the various employment centers through the region.

Knowledge-based, culture, and entertainment at regional centers

Contrary to previous trends of job decline in major regional centers,⁶ the recent growth of professional services in close proximity to urban amenities is expected to lead to an increase of job growth in Downtown San Francisco, Downtown Oakland, and Downtown San Jose, assuming an appropriate provision of infrastructure, transit, and access to affordable housing. At these regional centers, leisure and cultural activities have also been fueled by the Bay Area's confluence of international business and leisure travelers as well as artists and entertainers. Similar to the growth of San Francisco's financial district in the 1970s, the Bay Area is attracting new businesses and workers seeking to locate in close proximity to related firms, services and amenities. The new wave of businesses and professionals' demand for building space prioritizes flexibility to adjust spaces to multiple functions and requires less office space per worker relative to the early growth of traditional downtown office space.

⁶ Regional centers have reduced their office jobs as a share of the region from 49 percent in 1990 to 41 percent in 2010. Downtown San Francisco and Downtown Oakland also reduced their absolute employment levels. Downtown San Jose had a small increase.

Multiple activities and transit at office parks

Office parks have and are expected to continue to accommodate a growing number of employees. However, given the limited land available for new office parks, existing vacant office space, and the preference for walkable, transit-served neighborhoods by a growing number of employers, office parks are expected to grow at a slower pace than in recent decades. Existing office parks are also using less space per worker, providing transit access, and in a few cases adding housing, services and amenities. The emerging private shuttle services run by businesses, particularly in San Mateo and Santa Clara Counties, are expected to grow and improve transit access while lessening, but not fully mitigating increased freeway traffic congestion related to employment growth.

Downtown areas and transit corridors serving residents

Over the last decade, downtown areas in medium and small cities throughout the region have been expanding their services and jobs. The number of shops and festivals around the historic train station has expanded in Downtown Santa Rosa. Downtown Mountain View has a very active main street with an increasing number of restaurants and bars. New entertainment venues and amenities have located in the core of downtown Livermore. The increase in the senior population, combined with the region's changing ethnic demographic profile, is expected to increase the need and demand for local services in downtown areas in close proximity to residential locations with greater transportation choices. In the last decade, Priority Development Areas have shown an increased concentration of knowledge-based, arts, recreation, health, and education jobs.

New vitality of industrial and agricultural land

Manufacturing and wholesale distribution have experienced declining employment in many of the region's key industrial areas. However, in recent years a different and very diverse mix of businesses has relocated to these areas. In addition to basic services such as shuttle services, refuse collection or concrete plants, industrial lands are now occupied by a wide range of businesses from food processing to high tech product development, car repair, graphic design, and recycling among others. Because of their building and space needs, these economic sectors are coalescing into traditional industrial lands. They provide essential support to the leading knowledge-based sectors of the economy as well as to residents.

The trends in agricultural land have paralleled those of industrial land in its increasing diversity of activities. But, in the case of agricultural land, growth is related to the addition of services and tourism. The Bay Area’s wealth of agricultural land is unparalleled among our nation’s largest metropolitan regions and provides high quality products including a world-renowned wine industry. Beyond tourism, agricultural land and activity in the region is also a strong quality of life attractor for residents of the Bay Area.

For the most part, the region’s remaining farmland has some policy protections from urban expansion. All of the counties outside of San Francisco have a growth management framework in place (such as urban growth boundaries or agricultural zoning). The region needs to maintain these important policy supports to ensure the viability of the agriculture industry. Industrial lands will also require some level of protection given the pressures of infill residential and office development. A number of cities have already taken steps to preserve important industrial lands within their communities.

Housing Trends by 2040

Based on the employment forecast and the assessment of previous housing production, the Jobs Housing Connection Scenario assumes the production of 660,000 housing units. This level of production will allow the region to house all its population by 2040. This production of housing will be supported by current and new strategies in order to secure housing for residents at all income levels. A regional concerted effort to support housing affordability will ensure that the Bay Area is able to retain the vitality and competitiveness of its economy and a high quality of life for all residents.

Housing and jobs

The forecasted employment growth by industry is translated into occupation and wages to assess the income levels by 2040. All income groups show an increase by 2040 with small changes in the distribution: higher shares for the very low and low income households and lower shares for the moderate and above moderate income households. [Add footnote: description of each group]

Table 3. Number of Households by Income Group, 2010 and 2040

	Very Low	Low	Moderate	Above Moderate	Total
2010	25%	15%	18%	42%	100%
2040	26%	17%	17%	39%	100%

As is the case today, high-income households are likely to have a wide range of housing options. However, in order to ensure a healthy economy the regional efforts will focus on strategies and investment that provide housing for much of the region's workforce – sales clerks and secretaries, firefighters and police, teachers and health service workers – whose incomes would severely limit their housing choices. This has been an increasing challenge in the region, particularly in employment-rich locations given that market-rate housing development has been increasingly unable to deliver housing for the middle class. Even more challenging is the housing situation encountered by low and very low income households wage workers who struggle to find housing that costs less than 60 percent of their income.

Housing choices

The demographic changes described above are changing the housing choices among Bay Area residents. The growth of the senior, the Latino and Asian, and “echo boom” populations presents a different set of housing needs and choices. People aged 55 and over are more likely to prioritize public transportation, walking, and access to amenities, and are more receptive to townhouses and condos with smaller yards and smaller units than other types of households.⁷ Similarly, young singles have been found to be particularly attracted to places that offer walking access to shops, restaurants, cultural events, and clubs. They also prioritize short commutes.⁸ This so-called “Echo Boom” generation has a particular affinity for neighborhoods where they can walk and bike as an option.⁹ Analysis indicates that Latino and Asian households have also shown a preference for more housing choices that provide access to services and amenities and that accommodate multigenerational families. Cultural preferences of new immigrants also suggest they may be more willing to utilize public transportation and live in multifamily housing than native-born residents.¹⁰ The large number of relatively affluent aging baby boomers, the minimal projected growth of the 35-54 age cohort, and the preference for urban living among echo boomers, suggests future growth in the market for multi-family housing in infill locations.¹¹

⁷ Myers and Gearin, 2001; Belden Russonello & Steward, 2011.

⁸ Belden Russonello & Steward, 2011.

⁹ Department of Transportation statistics show that average daily vehicle miles travel (VMT) for people under 35 has declined steadily since 1995. U.S. Department of Transportation, “Table 33. Vehicle Miles of Travel (VMT) per day for Younger Population Groups by Urban and Rural Household Location 2009 NHTS,” Summary of Travel Trends: 2009 National Household Travel Survey, June 2011, <http://nhts.orl.gov/2009/pub/stt.pdf>.

¹⁰ Mendez, Michael, “Latino New Urbanism: Building on Cultural Preferences.” *Opolis: An International Journal of Suburban and Metropolitan Studies*, 1.1 (2005)

¹¹ Arthur C. Nelson, *The New California Dream: How Demographic and Economic Trends May Shape the Housing Market, A Land Use Scenario for 2020 and 2035*, Urban Land Institute, 2011.

While single family neighborhoods are very desirable for a significant segment of our population, the current stock in relation to changes in our population is likely provide a large supply of this housing type relative to demand in the coming decades. This is in part because single family homes have been the predominant form of housing produced in the region for decades. In contrast, townhouses, apartment buildings, condos, and other multifamily housing options are currently comparatively limited. The Center for Transit Oriented Development's analysis finds that while about 23 percent of Bay Area households (about 600,000) live near transit today, there is a market demand for up to 38 percent of Bay Area households to live in transit-accessible areas in future decades. (Metropolitan Transportation Commission 2005)

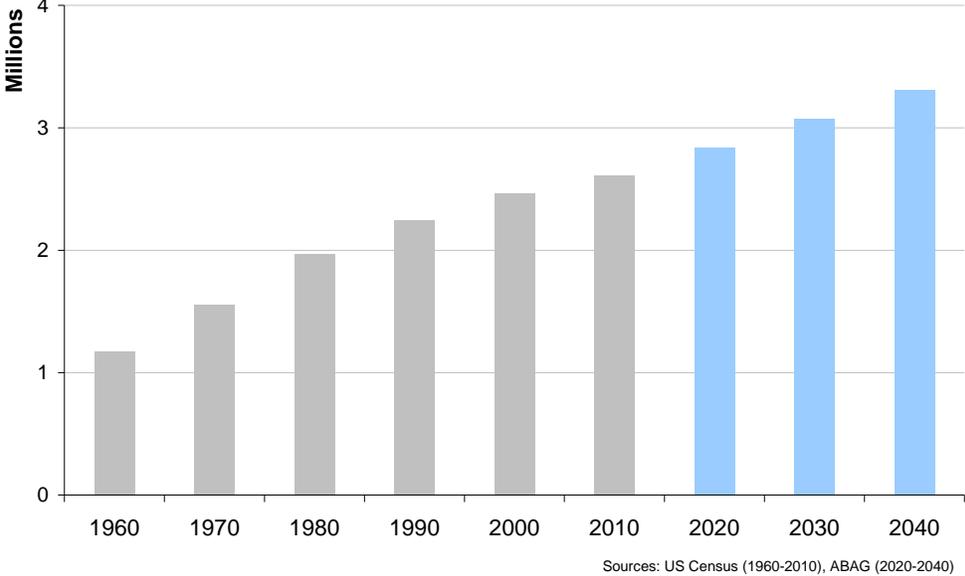
Housing production

The Jobs Housing Connection Scenario addresses the needs and trends of growing populations by accommodating more than two thirds of the housing production in Priority Development Areas, as places with transit access and a wide range of services and amenities. Those places will diversify housing options by increasing the stock of townhouses, apartments and condos in response to the changes in demographics and preferences in housing types. It is envisioned that the region will continue to produce new subdivisions but those are expected to be located within urban growth boundaries and represent a relatively small percentage of overall housing production through 2040.

In spite of multiple challenges, emerging trends indicate some support for housing production in PDAs. Since 2004 the region has increased its production of multifamily housing and multi-family housing has represented the majority of housing-related building permits since 2007. Also, the construction and banking industries increasing familiarity with the multi-unit building type are recent positive factors. Finally, the Governor recently signed several bills that ease regulations for new housing constructed in developed areas where streets, schools, jobs, and services already exist.¹² This should help housing construction in Priority Development Areas (PDAs).

¹² The Governor recently signed three CEQA reform bills, including SB 226 which exempts some infill construction from CEQA, and more CEQA reform is planned.

Figure 5. Regional Total Households by Decade, Past and Future



Addressing the Affordable Housing Challenge

The production of affordable housing by 2040 relies on several current strategies. These strategies will need to be expanded and new strategies developed.

- i) *Affordable rental housing production.* The production, whether through new construction, acquisition/rehabilitation, or adaptation, and whether by nonprofit or profit-motivated developers, of income-restricted rental housing for the Very Low and Low Income households.
- ii) *Inclusionary Housing.* Land use regulations and sometimes incentives, enacted at the local governmental level, that mandate the inclusion of affordable housing, whether on-site, off-site, or through the payment of in-lieu fees, in the development of market rate residential developments. This includes Moderate Income households.
- iii) *Habitat for Humanity affordable homeownership.* An international charitable organization that includes local chapters that cover all nine counties in the Bay Area. Its mission is to provide affordable homeownership housing opportunities to households that generally fall in the Very Low Income and Low Income categories. Its unique production model relies on sweat equity from the homeowner-to-be as well as labor from volunteers to keep TDCs to minimal levels.
- iv) *Resale of foreclosed residential properties.* The foreclosure crisis offers the opportunity for the resale or leasing of foreclosed properties at drastically lowered sales prices or rents, thus bringing a substantial quantity of market rate housing stock within reach of Very Low, Low, and Moderate Income households.
- v) *Housing Choice or Section 8 Vouchers.* Arguably the centerpiece of the system of subsidies to low-income renters in the United States.¹³ While the entities that govern the disbursement of HCVs, public housing authorities (PHAs), can elect to convert up to 20% of the HCVs under their ambit to project-based subsidies, that leaves at least of 80% of HCVs as tenant-based, or portable, subsidies that recipient households use to select, and help pay for, a housing unit of their own choosing in the private rental market.
- vi) *Secondary units.* Rental housing units carved out of residential properties or accessory buildings, whether in compliance with local building and zoning codes or not. These units appear to house a substantial number of people in at least certain subregions of the Bay Area.
- vii) *Filtering.* The process of market-rate housing stock becoming affordable to lower income groups via depreciation over time.
- viii) *Group quarters.* A portion of the population increase in the Bay Area between 2010 and 2040 will be housed in group facilities that have not yet been expanded or built. These include nursing homes, hospitals, homeless shelters, college dormitories, jails, and other facilities.

¹³ See, for example, Quigley, John. 2008. “Just Suppose: Housing Subsidies for Low-Income Renters” in *Revisiting Rental Housing: Policies, Programs, and Priorities*, edited by Nicolas P. Retsinas and Eric S. Belsky. Brookings Institution Press, Washington, D.C.

Jobs and Housing by Place, 2010 - 2040

By 2040, the region is forecast to have 4.5 million jobs and 3.4 million housing units, or an additional 1.1 million jobs and 660,000 housing units. This section explains the distribution of this growth throughout the region. The growth distribution addresses emerging demographic and economic trends, and policy considerations for a healthy economy, equitable access to jobs and housing, and preservation of our natural resources and agricultural land. The process, approach, and growth distribution of this land use pattern are explained below.

The Process to Date

The growth pattern represented by the Jobs-Housing Connection Scenario has been developed through an extensive dialogue with local jurisdictions and input from stakeholders and the general public. This process has been supported by a team of consultants that provided expertise for the economic, demographic, and housing analysis developed to inform the land use pattern developed.¹⁴

Staff relied on this input and analysis to prepare the Initial Vision Scenario as well as the preceding alternative scenarios. These scenarios have been discussed with Congestion Management Agencies, Planning Directors and elected officials at the local and county levels to address the specific needs and challenges of each community.¹⁵ The scenarios have been presented at the Joint MTC Planning /ABAG Administrative Committee, the ABAG Executive Board, and the Metropolitan Transportation Commission. The development of the Jobs-Housing Connection Scenario takes into account the input received on previous scenarios and the most recent economic and housing analysis of past and future regional trends.

¹⁴ Employment and population dynamics, Center for Continuing Study of the California Economy; employment distribution, Strategic Economics; housing production, household income, and affordability, Karen Chapple, UC Berkeley; housing policy, Amit Ghosh; and regional economic output, Cambridge Systematics.

¹⁵ Multiple discussions and county-specific processes have also been created in counties to address local needs and challenges. (www.onebayarea.org)

Input from Local Jurisdictions

The intent of regional agencies has been to develop a regional growth pattern that recognizes local aspirations and the unique characteristics of our region's neighborhoods and communities. Key input from local jurisdictions reflecting local character and aspirations form the basis of the proposed regional growth pattern. These efforts began before the development of the SCS and Plan Bay Area were underway, and have continued through meetings, workshops, letters, surveys and website postings. Over 70% of the region's 109 local jurisdictions have nominated Priority Development Areas as complete communities since 2007. Starting in November of 2010, through the development of the Initial Vision Scenario, and subsequently the Alternative Scenarios, local jurisdictions have provided significant input regarding the overall approach to the SCS and specific information on their local plans.¹⁶

Some communities described the level of housing growth depicted in the previous scenarios as too high, while other jurisdictions responded that growth levels would be appropriate if additional funding for redevelopment, public schools, transit, and other community infrastructure were available. Much input was received on economic challenges and the need to align current and new investments, including transit services, to support employment growth and housing production. Another area of concern has been the alignment of strategies, investments and regulations across regional and state agencies. The elimination of redevelopment agencies and reductions in transit service in some areas was also highlighted as a major challenge to growth.

Input from stakeholders

Regional agency staff has worked with stakeholders concerned with the economy, the environment, and equity. Business and economic organizations have raised concerns about supporting a healthy economy by highlighting the need for more affordable workforce housing, increasing options for housing production, removing regulatory barriers for infill development, and addressing infrastructure needs at major and rapidly growing employment centers. Environmental organizations have emphasized the need to address all housing needs to reduce the number of commuters from adjacent regions, improve transit access, retain open space,

¹⁶ Local planning staff in the majority of the region's local jurisdictions provided presentations on the Initial Vision Scenario and/or Alternative Scenarios to their city councils or boards of supervisors. Subsequently local communities provided the regional agencies with direct and specific feedback on the scenarios.

and direct discretionary transportation funding to communities developing housing in Priority Development Areas. Independent equity groups, as well as the Regional Equity Working Group and MTC's Policy Advisory Council, have provided input on increasing access to housing and employment and an improved quality of life for residents from all income categories throughout the region. These groups have suggested specific indicators to address housing needs in communities where strong employment growth is expected to attract large numbers of low-income workers.

Additional input has been gathered from the public at large through community workshops, county workshops, telephone polls, and website surveys. Details on this public input can be reviewed at (http://www.onebayarea.org/workshops/winter_2012_results.htm).

The Approach

The Jobs-Housing Connection Scenario links local aspirations for community development with regional objectives, particularly a strong regional economy, and identifies places to accommodate new population and job growth in a way that maximizes the use of existing infrastructure and transit, improves access to services and amenities, and reduces the cost and time of work-related commutes and other day-to-day trip needs. Future job and housing growth is defined by *Priority Development Areas* and *regional growth factors*.

Priority Development Areas

Priority Development Areas are selected and nominated by local jurisdictions as appropriate places for growth according to the qualities of each place. Local jurisdictions choose a *Place Type* for each PDA (such as regional center, transit neighborhood, or rural town), which provides a general set of guidelines for the character, scale, and density of future growth. Places can range from a major regional center such as Downtown San Jose or San Francisco, to a city center such as Downtown Fremont or Berkeley, to suburban centers such as Downtown Walnut Creek or Hacienda in Pleasanton, to rural towns such as Cloverdale in Sonoma County.

There are more than 200 *Priority Development Areas*, representing a wide range of places; some plan to accommodate a few stores and services while others consider high rise office buildings. Development will be

very modest in rural towns, whereas regional centers envision new mid-rise and high-rise buildings. Each community plans for new development that compliments what is already in their PDAs.

For example, in most small suburban communities the scale of new buildings is a mix of townhouses and 2-3 story commercial structures. Mid-sized communities however, are generally planning for residential and commercial buildings in the 3-5 story range. All communities with Priority Development Areas are seeking to move away from a “project-by-project” development approach, toward the creation of appropriately scaled, attractive complete communities that meet the daily needs of residents and workers.

Priority Development Areas are all existing communities that encompass only 4 percent of the region’s land area. As such, focusing growth in PDAs simultaneously supports the retention of Priority Conservation Areas (PCAs), locally identified regionally significant areas for agriculture, natural habitat, and open space.¹⁷

Regional growth factors

In general, the regional growth factors address the employment trends by economic sector and the changing demographics and housing needs of the region. They are based in part on: the growth potential of areas supported by transit and existing infrastructure; where housing is needed to support access to jobs; and where economic clusters support job growth.

Employment growth is organized under three major groups: knowledge-sector jobs, population-serving jobs, and all other jobs. Knowledge-sector jobs, such as information technology companies, legal or engineering offices, or biotechnology firms, are expected to grow based on current concentration, specialization, and past growth as well as transit service and access. Population-serving jobs, such as retail stores, or restaurants, are expected to grow based on the number of residents per place. All other jobs, including government, agriculture and manufacturing, are expected to grow according to the existing distribution of jobs in each of these sectors. (See Appendix 6)

¹⁷ Conservation priorities adopted by ABAG in 2008.

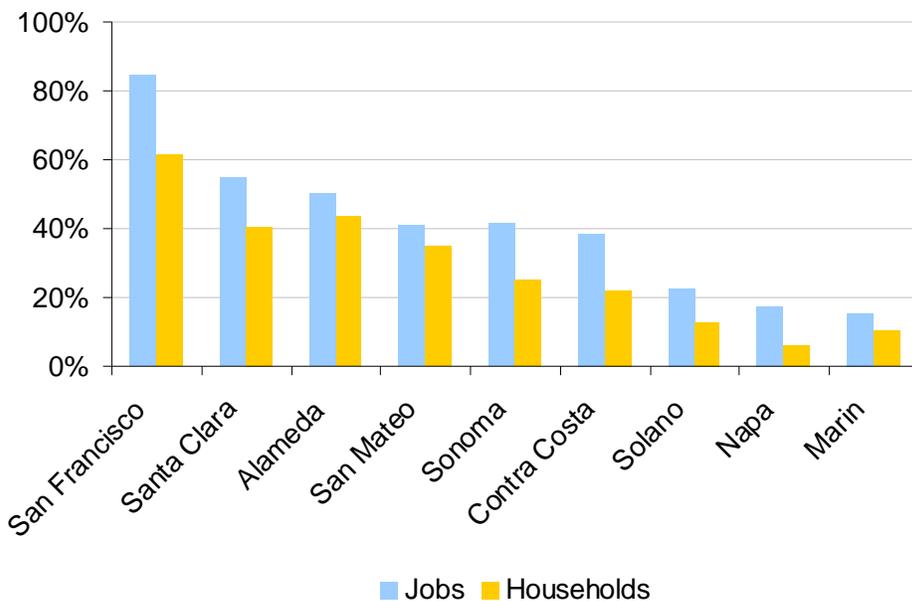
Housing growth in this scenario starts with local plans at the county, city, and PDA level. Five factors are then applied to forecast growth in alignment with regional goals: 1) local transit service, 2) vehicle-miles traveled, 3) employment by 2040, 4) low-wage workers commuting from outside each place, and 5) housing cost. Housing growth is next adjusted to acknowledge suburban growth supported by existing infrastructure, including that on presently undeveloped land, and to ensure that no county or city’s proposed growth substantially deviates from local plans. This Jobs-Housing Connection Scenario accounts for the current high vacancy rate by city by assuming a standard vacancy rate of four percent. It also assumes an increase in group housing, recognizing prevailing demographic and social trends. (see Appendix 4)

Growth Distribution

Priority Development Areas

In the Jobs-Housing Connection Scenario, more than two-thirds of all regional growth by 2040 is allocated within Priority Development Areas which represent about 4 percent of the region’s total land area. PDAs represent 74 percent or over 500,000 units of new housing production, and 67 percent of new jobs, or almost 747,000. Between 2010 and 2040, the share of housing in PDAs shifts from 26% to 37% and jobs from 47.6% to 52.3%.

Figure 6. Share of Jobs and Housing in PDAs by County, 2040



Cities

Within cities the *Place Types* identified as *Regional Centers*, *Mixed-Use Corridors* and *Urban Neighborhoods* account for the majority of growth. The three major cities with *Regional Centers* San Jose, San Francisco, and Oakland take 36% of the total housing growth and 35% of total job growth by 2040. El Camino Real/The Grand Boulevard, San Pablo Corridor, and East 14th – International Boulevard corridor connects a variety of PDAs and also represents a major share of both housing and job growth.

Medium size cities such as Fremont, Dublin, Pleasanton, Santa Rosa, Richmond, Walnut Creek, and Concord also play a major role in accommodating new jobs and housing - together they represent about 15% of total housing growth and 12% of total job growth. Small cities, single family neighborhoods, and rural areas have a very small share of the overall growth by 2040 and are expected to retain the same scale and character over the next 28 years.

Place Type Examples

For example, the following PDAs by *Place Type* illustrate the broad spectrum of growth that could occur by 2040.

Regional Centers – High Growth

Regional Centers like North San Jose represent major downtown areas for employment growth. Employment is expected to increase by over 45,000, or from 90,000 to over 135,500 by 2040. San Jose envisions high-density infill development of up to 15 stories or more for the area, representing millions of new commercial square feet and thousands of new homes.

City Centers – Moderate Growth

City Centers include areas like Central Richmond that represent more modest areas of growth. Job creation, a major city goal, is projected to increase from just over 6,500 to 8,700, or by 34% by 2040. The City hopes to restore the vitality that the district had during WWII and the post-war years by capitalizing on the wealth of transportation options available, and increase transit ridership by creating a safe, vibrant, walkable neighborhood with 3-4 story infill development that includes housing, neighborhood-serving retail, and other employment activities around the BART station.

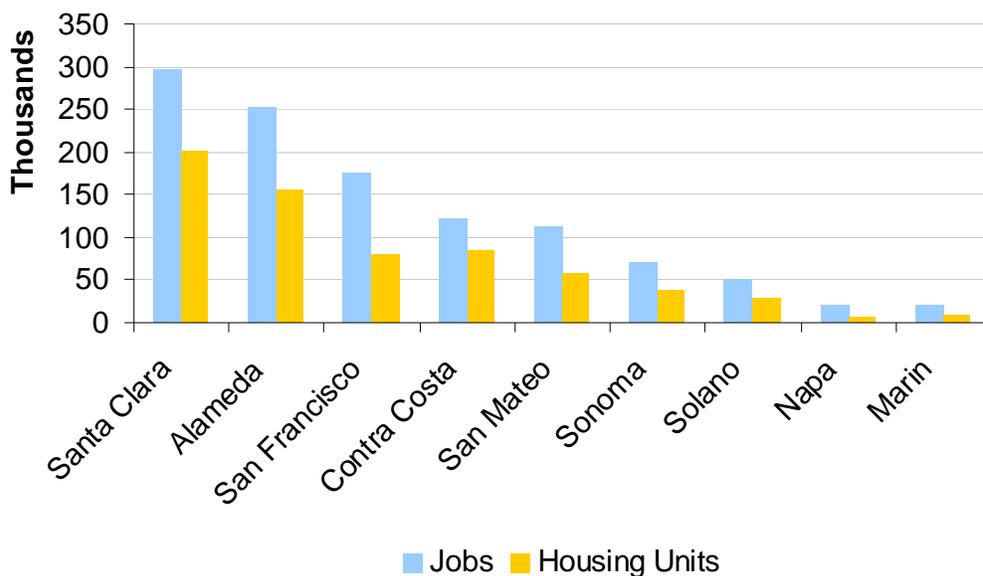
Transit Town Centers – Low Growth

Transit Town Centers are well represented by places like the City of Cloverdale, located at the northern end of Sonoma County in the idyllic Alexander Valley. Only 550 new jobs are forecast by 2040, with virtually all growth occurring within the downtown area. Cloverdale envisions a livable downtown where residents, workers, and visitors can take advantage of rail and bus service around the local SMART transit station. New development, mostly 1-2 stories, will be clustered within the downtown area to limit development on sensitive habitats including nearby rivers and creeks.

Growth by County

With more than one worker per average household, increases in jobs are greater than housing units. By 2040, Santa Clara and Alameda counties absorb the most housing unit growth in the region, with 30% and 23% respectively, followed by Contra Costa (13%), San Francisco (12%), and San Mateo (9%). Solano and Sonoma take on about 5% each, while Marin and Napa take on only 1% each. In terms of employment by 2040, most jobs are concentrated in Santa Clara, Alameda, and San Francisco with 26%, 23%, and 16% percent respectively. They are followed by Contra Costa and San Mateo with 11% and 10% respectively.

Figure 7. Growth of Jobs and Housing by County, 2010-2040



San Francisco

San Francisco is one of California's largest cities and home to many of the region's landmarks. Like many port cities, the convergence of various cultures in one location resulted in a diverse population. Over time the city has emerged as a major financial and cultural center, as well as a primary tourist and convention destination in North America. In recent years San Francisco has emerged as a leading center for innovative companies and enterprises. Also, recent residential development has significantly expanded the city's ability to accommodate population growth.

Surrounded by water, San Francisco's population and employment growth over the decades was accommodated with more intense development throughout the city's varied neighborhoods. As a result, the city has the highest residential and commercial densities in the region. San Francisco is one of the region's largest employment hubs, and accommodates nearly one half million commuters each day many of whom travel using the region's most extensive public transit system. From 2010 to 2040 housing and jobs projection, San Francisco is estimated to absorb 93,470 additional households or 13% of the total regional household growth. In terms of employment, the projections estimate an increase of 175,000 additional jobs or 16% of total regional growth.

Contra Costa County

Located across from San Francisco and Marin County, Contra Costa County has grown to be one of the third most populous areas in the Bay Area region; the county's natural beauty and its strategic location between the San Francisco Bay and California's Central Valley have long attracted residents and businesses. Auto-oriented growth spurts during the 1940s and then again from the 1980s through early 2000 pushed development eastward. Over one-third of Contra Costa County's most recent population growth took place in the eastern portion of the county. Growth is expected to continue as the county supports major thoroughfares and BART, connecting city centers, employment centers, transit neighborhoods, and transit town centers to regional employment hubs and affordable housing options. From 2010 to 2040 forecasts, Contra Costa County is projected to experience 13% of the total regional housing growth or an estimated 90,000 additional households within its boundaries. West County, the area in and surrounding the San Pablo Avenue PDA, will take on a significant portion of the county's housing growth. Contra Costa is predicted to absorb 11% of the total regional employment growth..

The added growth has fueled concerns amongst county residents over sprawl development, congestion, open space preservation, jobs and economic development, and quality of life. These concerns are particularly germane to Contra Costa as 33% of the new household growth is projected to be very low income. The Preferred Scenario incorporates feedback from local jurisdictions in the county to build a local and regional policy framework with emphasis on focused growth within existing centers and that identifies areas for future growth.

San Mateo

San Mateo County is strategically located between San Francisco and Silicon Valley. The Coast Range divides the county into two distinct parts: the bayside and coast. Ninety percent of development in the county is located on the bayside. The communities along the bayside of the Peninsula are home to Fortune 500 headquarters, globally significant firms and research entities as well as many charming town centers and residential neighborhoods. The downtowns of many of the county's cities, including South San Francisco, San Bruno, Millbrae, Burlingame, San Mateo, Belmont, San Carlos, Redwood City, and Menlo Park, are clustered near a Caltrain station, often encompassing or bordering El Camino Real. In contrast, the coast is primarily agricultural, although some residential and office development has appeared in recent years. The downtown areas and transit-served neighborhoods have been the primary focus for growth in San Mateo County. Local governments along El Camino Real are working together to transform the corridor from an auto-oriented commercial strip into a grand boulevard that includes a mix of homes, stores, parks, and services, and links the transit town centers and city center nodes along its length. Currently, there are 40 PDAs, and 3 additional proposed, that encompass the Grand Boulevard and other key areas well suited to account for many of the 58,250 additional housing units projected in the Jobs-Housing Connection Scenario through 2040. These additional units represent 9% of the total regional housing unit growth. Concurrently, the County is expected to support 10% of the total employment growth for the region.

Local feedback was incorporated to ensure that the Jobs-Housing Connection Scenario appropriately concentrates growth given local plans for Priority Development Areas. San Mateo and Redwood City are expected to house the largest concentration of jobs and housing in the County. The concentration of growth in these bayside communities will reduce growth pressures on the coast, allowing the county to retain its agricultural, scenic, and natural resource areas in the hills and coastside.

Alameda County

Located just across the bay from San Francisco, Alameda County is the most centrally located county in the region. Its centrality, access to economic opportunities, unique communities, and diverse array of natural amenities make it an attractive choice for residents and business. The University of California, Berkeley, Lawrence Livermore Laboratory, and Disney Pixar Studio are among the highly esteemed campuses located within its boundaries.

Alameda County is home to the City of Oakland, one of the largest cities in the region, The Port of Oakland, one of the country's busiest container ports, nineteen BART stations, and an enviable park system. Alameda County has long been a major hub of economic activity in the Bay Area and is projected to grow significantly within the 2010 to 2040 estimates, taking on 23% of total regional household growth, or 154,000 additional units, and 23% of total regional job growth or 252,000 jobs.

Local feedback was incorporated on growth projections in PDA corridors. Accordingly, the Jobs Housing Connection Scenario supports new homes and jobs into neighborhoods along major transportation corridors in Oakland, Emeryville, Dublin, and Fremont.

Marin County

Located north of San Francisco and south of Sonoma County, Marin County is recognized for its natural and agricultural landscapes, which support local farming and ranching, tourism, recreation, wildlife habitat, and water supply. More than 50 percent of the county is protected open space and the Marin Agricultural Land Trust and the Marin County Department of Parks and Open Space have worked for decades to protect and preserve the county's iconic landscapes. Plan Bay Area will support continued protection of the many Priority Conservation Areas in Marin County.

For decades, Marin County has managed growth through city-centered growth policies and focused development along the urbanized U.S. Route 101 Highway corridor. Golden Gate Transit bus service offers connections throughout the county and to surrounding areas. Ferry terminals in Sausalito, Tiburon, and Larkspur also connect residents to jobs in San Francisco. In the future, the proposed Sonoma-Marín Area Rail Transit (SMART) rail connection will link the Larkspur ferry terminal with Sonoma County.

Feedback received from several jurisdictions related to the Initial Vision Scenario and Alternative Scenarios has been taken into account in the development of the Jobs-Housing Connection Scenario. Some jurisdictions indicated that levels of household and employment growth were appropriate, while other cities expressed concern that the distributions were too high. The Jobs-Housing Connection Scenario recognizes Marin County's relatively limited role in the region's growing economy and focuses Marin's growth along the Highway 101 corridor. Marin County takes one percent of the regional housing growth by 2040 and two percent of the region's job growth.

Sonoma County

Sonoma County is the largest, northernmost county in the San Francisco Bay Area and contains coastal areas, redwood forests and oak woodlands, rivers, wetlands and baylands, vineyards, grasslands, and small farms. Urban development in Sonoma County is concentrated within cities along the U.S. 101 corridor, which has been supported by voter-approved urban growth boundaries and other policies that encourage separation between cities and scenic landscapes to maintain the county's rural character and economy. The existing bus service in the county will be enhanced by the introduction of Sonoma-Marin Area Rail Transit (SMART). The stations planned in Cloverdale, Healdsburg, Windsor, Santa Rosa, Rohnert Park, Cotati, and Petaluma are largely located within Priority Development Areas and will provide improved connections among the cities in the county and to employment opportunities in San Francisco.

Local feedback from Sonoma County was utilized to tailor the housing and job estimates in the draft Jobs Housing Connection Scenario. Sonoma County assumes six percent of regional housing unit growth by 2040, and six percent of the total regional job growth. Household and job growth are focused in Santa Rosa, the largest jurisdiction in the county, and other jurisdictions along the SMART corridor. The PDAs in Sonoma County will encompass 56 percent of the county's forecasted household growth.

Napa County

Napa County is internationally acclaimed for its winemaking, and the picturesque Napa Valley wine region is a major draw for San Francisco Bay Area visitors. The valley is bounded by mountains, and the Napa River empties into San Pablo Bay through the narrow Mare Island Strait. Napa County has strong policies to prioritize agricultural uses and to protect farmlands, watersheds, and open space. Consequently, more than 90 percent of unincorporated county land falls within those designations. The County seeks to continue to

protect these lands and encourage recreation through its ten Priority Conservation Areas. Most non-agricultural development is clustered in the four cities and one town connected by Highway 29, which parallels the Napa River in the western part of the county.

Local feedback provided information on constraints to growth in Napa County. The Jobs-Housing Connection Scenario recognizes the focus on agricultural and watershed protection in the County by allocating only one percent of the region's housing growth and two percent of the region's job growth. The Cities of Napa and American Canyon assume most of the County's household growth, while the City of Napa and unincorporated Napa County assume most of the job growth in the County. The PDAs in the Cities of Napa and American Canyon help focus 27 percent of the County's household growth.

Solano County

Solano County has the distinction of containing nearly half the San Francisco Bay Area's important farmland and more than half the region's wetlands, according to the State Farmland Mapping and Monitoring Program. The Sacramento River flows along the southeastern portion of Solano County emptying into the Sacramento-San Joaquin River Delta, the largest estuary on the U.S.'s West Coast, and into the Suisun Bay. Five Priority Conservation Areas have been identified in the county to protect important natural resources.

Solano County's historical growth was in part attributable to military bases. The county's location between the metropolitan centers of San Francisco and Sacramento and its lower land prices relative to other parts of the Bay Area made it an attractive place for increased housing development in response to the demand for lower cost housing. Solano County's Orderly Growth Initiative, adopted in 1994, encourages city-centered growth and supports the agricultural economy. This policy has focused jobs and commercial areas in and near the county's major urban areas.

The Jobs-Housing Connection Scenario for Solano County recognizes city centered growth and thus, focuses the majority of household and job growth in the cities of Fairfield, Vacaville, and Vallejo. The scenario also recognizes existing greenfield development capacity within urban growth boundaries in a few communities including Fairfield. Solano County takes five percent of the region's housing growth and five percent of the region's job growth. The PDAs in Solano County jurisdictions help focus 43 percent of the County's household growth.

Policies and Strategies - Building Complete Communities

Jobs- Housing Connection Scenario Benefits

The Jobs-Housing Connection Scenario does not offer immediate policy prescriptions for remedying a crisis caused by conditions outside our region. Rather, it focuses on the Bay Area recovery, once the national economy has been restored. This section provides an overview of the Jobs-Housing Connection Scenario's benefits, current proposed regional programs, and the framework for a larger policy discussion at the State and Federal levels.

- **Strengthening the character of places:** The Bay Area encompasses a wide range of places that vary in character, scale, activities, population, and access. The Jobs-Housing Connection Scenario pursues a development pattern that enhances the qualities of each place and provides diverse housing and transportation choices.
- **Supporting a healthy economy:** The region has great assets to support a healthy economy. This scenario will guide growth to strengthen the economic performance of the region through appropriate access to jobs, affordable housing and amenities.
- **Preserving open space and agricultural land:** In contrast to previous trends, greenfield development is minimized to retain the open space and agricultural land of the region. This Scenario proposes growth within the region's urban footprint around the regional transportation network for a more efficient use of infrastructure as well as water resources. The Bay Area's greenbelt of agricultural, natural resource, and open space lands is a treasured asset that contributes to the region's quality of life, and supports economic development. This Scenario supports the retention of these lands by supporting the continuation of agricultural activities in rural communities.
- **Location of future housing and jobs next to transit, amenities, and services:** This scenario recognizes the need to produce affordable housing, maximize the use of existing infrastructure, and reduce reliance on the automobile. Schools, shops, parks, health services, and restaurants close to residents and workers increase walking, biking, and transit while reducing time spent driving. This location pattern strengthens the identity and diversity of places and reduces greenhouse gas emissions.

- **Build quality multifamily housing for a range of incomes and household sizes:** The concentration of housing in PDAs support the increased demand for multifamily housing. Also, this scenario links jobs, wages and population to define the housing needs by income level.
- **Strengthening regional transit corridors to provide access to jobs and services:** The Jobs-Housing Connection Scenario emphasizes growth along transit corridors to increase transportation options, improve mobility, and expand access to jobs and services. It recognizes the complementary functions of different nodes along the corridor, and the importance of cultivating and connecting diverse place types that provide a unique urban quality with a particular mix of shops, services, or amenities.

Regional Land Use Programs

The Plan Bay Area Jobs-Housing Connection Scenario builds upon the FOCUS program to identify a sustainable land use development pattern and transportation network. The implementation of Plan Bay Area is achieved through a range of existing programs and incentives, many of which are enhanced and expanded as well as new regional programs. The comprehensive set of transportation policies, strategies, and investments will be released in April and are not a part of this document.

FOCUS Program

FOCUS is a regional development and conservation strategy that seeks to guide growth to locations where it can best be served by existing infrastructure and amenities, and preserve areas important for agriculture and open space. New development is directed away from neighborhoods that are exclusively residential to vacant land and low density underutilized commercial and industrial parks with better access to transportation. Simply put, these are the areas most appropriate for new development. Priority Conservation Areas, or PCAs, are areas important for agriculture or open space. These areas are also designated by the local community.

Several incentives have been developed to support regional and local goals for creating complete communities through the PDA framework. Incentives include grants to create land use plans that support the development of PDAs as complete communities, infrastructure grants to support the implementation of land use and transit plans, and technical assistance to evaluate specific issues or hurdles local jurisdictions face in implementing their land use plans.

One Bay Area Grant

The One Bay Area Grant proposal is a new approach to spending transportation funding in this region to support implementation of the SCS by focusing incentives in PDAs and PCAs. It distributes \$250 million among county congestion management agencies (CMAs) based on a county's population, plans for accommodating housing, and housing production. CMAs will spend 70% of these county funds (50% in North Bay counties) in PDAs to support the development of those areas as complete communities.

The One Bay Area Grant proposal increases funding to support jurisdictions in creating PDA land use plans. The plans engage communities to determine appropriate land uses, transportation and infrastructure improvements, along with other planning elements including a programmatic environmental impact report, to create a long-term development vision for the area. The One Bay Area grant proposal also creates a regional pilot program to fund Priority Conservation Areas in North Bay counties. Other counties will also be able to spend a portion of grant funds on PCAs if they so choose.

Transit Oriented Affordable Housing Fund

In 2011, the Metropolitan Transportation Commission approved \$10 million to match outside funds and establish a \$50 million revolving loan fund for affordable housing developers to finance land acquisition in Priority Development Areas.¹⁸ The TOAH Fund is available for experienced nonprofit and for-profit developers, municipal agencies and joint ventures of these entities. Projects must be located in PDAs.

¹⁸ Other investors in the Bay Area Transit Oriented Affordable Housing (TOAH) Fund include Morgan Stanley and Citi Community Capital, each of which provided \$12.5 million; The Ford Foundation and Living Cities, a collaborative of foundations and financial institutions, which invested \$3 million each; six community development financial institutions (CDFIs), which combined to contribute \$8.5 million; and the San Francisco Foundation, which provided \$500,000 plus the 2007 seed funding to develop the fund's business plan.

Disaster Resilience Initiative

Part of successfully integrating sustainability into the long-term vision of the region is anticipating, preparing for, and being able to recover from major disasters. ABAG, local agencies around the region, and community partners are collaborating on a Regional Disaster Resilience Initiative focusing on restoring lifeline and critical infrastructure after a major disaster. While the region already has a robust and well-organized system of disaster response and preparedness, recovery actions and responsibilities in the subsequent months, years, and decades are much less defined. Planning for recovery ensures that the Bay Area rebuilds and reshapes its region in a proactive and sustainable way that aligns with our goals for the future.

Bike and pedestrian paths

The development of a cohesive and comprehensive system of bicycle and pedestrian facilities is critical for sustainable growth and a high quality of life in the nine-county Bay Area.

A significant amount of effort and resources has already been committed to plan, fund, develop, and improve bicycle and pedestrian facilities within the Bay Area. California passed the Complete Streets Act of 2008 which requires all cities and counties to include complete streets policies as part of their general plans so that roadways are designed to safely accommodate all users, including bicyclists, pedestrians, transit riders, children, seniors, and the disabled, as well as motorists.

Existing bicycle and pedestrian path policies include:

- ABAG and MTC will continue to encourage the development of safe, accessible, and useable bicycle and pedestrian facilities through regional planning and funding.
- Encourage local cities and counties to develop and regularly update bicycle and pedestrian plans, policies, and design guidelines that support the development of bicycle and pedestrian facilities.
- Develop regional policies and dedicate funding to support the development of bicycle and pedestrian infrastructure that facilitates travel within communities, job centers, and other major activity areas and connections to schools and major transit nodes.
- Prioritize the completion of the regional bicycle network in MTC's Regional Bicycle Plan and the regional trails that provide regional linkages between Bay Area communities, job centers, parks, and other major activity centers, and continue to dedicate funding that prioritizes the completion of these regional bicycle and pedestrian facilities.

Proposed Policy Framework

How do we address these regional economic, demographic, housing, and transportation challenges? To achieve the broader goals of the Plan Bay Area requires numerous policy changes, which no one level of government can accomplish alone. Policy changes and new programs from the Bay Area's 101 incorporated cities and 9 counties, and from regional agencies such as MTC and ABAG, will be required, as will changes at the Federal and State levels. Only such a multi-pronged initiative can succeed in achieving the goals proposed in the SCS.

The majority of new job and housing growth must be guided into PDAs. New housing must also be more affordable, so that new jobs can be filled by Bay Area residents. The policies needed to make this vision a reality fall under four general, somewhat overlapping, categories including: 1) Job Production, 2) Housing Production, 3) Infrastructure and Community Services, and 4) Federal and State policies.

Job production policies seek to increase the quantity, quality and spatial concentration of jobs in the region. These policies include tax credits for businesses and lower income working households; sectoral job strategies that promote growing industries as well as building the skills necessary to connect residents with expanding sectors; small and micro-business technical and tax-filing assistance; and efforts to ensure a sufficient supply of affordable incubator space to encourage business starts.

Housing production policies act to increase the construction and rehabilitation of housing for all income levels. These policies include increasing funding for affordable housing programs such as Low Income Housing Tax Credits (LIHTC) and issuing affordable housing bonds; modifying existing housing programs to prioritize PDAs as locations for housing production; local regulatory reform and streamlining; separating the cost of parking from new development to allow residents and businesses to maximize savings (unbundle parking); adopting parking maximums and more flexible parking standards; recognizing changing household demographics and allowing and encouraging secondary units that can support more households without changing neighborhood character and also supplement incomes (particularly for older residents on fixed incomes living alone); and encouraging larger family sized units, particularly in PDAs.

Infrastructure and community services policies ensure that the infrastructure and public amenities needed to make PDAs better neighborhoods and employment centers occur as jobs and housing grow. These policies include increased funding for schools; addressing our aging water infrastructure prone to disruption in times of emergency, protecting our limited water supply with state of the art water conservation and storage technology; increasing funding for city parks and rural open spaces; and planting trees greening streets, and building infrastructure in ways that also improve air quality and reduce pollution from storm water runoff.

Federal and State policies concern the funding, taxation, and regulation of Bay Area communities. These include more favorable tax policies that promote the production of all types of housing, especially affordable housing and rental units; transfer some taxing authority from Sacramento to the local level for improved accountability and local control (correcting an unintended consequence of Prop 13); and augmenting existing grant, loan, and bond programs for infrastructure, housing, commercial investment, and energy conservation.

Next Steps

By April 2012, ABAG will incorporate a more complete set of policies and strategies that can be applied at the local level through case studies addressing different place types. ABAG will also suggest a framework to address policy changes needed at the Federal and State levels to fully implement Plan Bay Area.

Appendices

1 Housing Distribution by Jurisdiction

Alameda County Jurisdictions	Housing Units				Households					
	2010	2040	2010- 2040		2010	2040	2010- 2040		PDA Share	
			Total	%			Total	%	2010	2040
Alameda	32,350	38,020	5,670	18%	30,120	36,500	6,380	21%	7%	20%
Albany	7,890	8,840	950	12%	7,400	8,430	1,030	14%	23%	23%
Berkeley	49,450	57,940	8,490	17%	46,030	55,630	9,600	21%	16%	25%
Dublin	15,780	36,560	20,770	132%	14,910	32,810	17,900	120%	35%	52%
Emeryville	6,650	12,430	5,780	87%	5,690	11,930	6,240	110%	62%	80%
Fremont	73,990	94,600	20,610	28%	71,010	89,430	18,430	26%	36%	42%
Hayward	48,300	62,080	13,780	29%	45,370	59,590	14,230	31%	12%	26%
Livermore	30,340	41,820	11,480	38%	29,130	40,150	11,010	38%	5%	29%
Newark	13,410	18,870	5,450	41%	12,970	17,740	4,760	37%	5%	19%
Oakland	169,710	208,660	38,950	23%	153,790	200,310	46,520	30%	72%	76%
Piedmont	3,920	3,980	60	2%	3,800	3,820	20	1%	0%	0%
Pleasanton	26,050	31,710	5,660	22%	25,250	30,440	5,200	21%	5%	16%
San Leandro	32,420	40,150	7,730	24%	30,720	38,550	7,830	25%	26%	36%
Union City	21,260	23,920	2,660	13%	20,430	22,960	2,530	12%	5%	8%
Unincorporated	51,020	56,970	5,950	12%	48,520	54,690	6,170	13%	25%	29%

Contra Costa County Jurisdictions	Housing Units				Households					
	2010	2040	2010- 2040		2010	2040	2010- 2040		PDA Share	
			Total	%			Total	%	2010	2040
Antioch	34,850	41,110	6,260	18%	32,250	39,460	7,210	22%	5%	15%
Brentwood	17,520	18,790	1,270	7%	16,490	18,040	1,540	9%	0%	0%
Clayton	4,090	4,190	110	3%	4,010	4,070	60	1%	0%	0%
Concord	47,130	66,860	19,730	42%	44,280	64,180	19,900	45%	10%	31%
Danville	15,930	17,810	1,880	12%	15,420	17,100	1,680	11%	0%	0%
El Cerrito	10,720	12,160	1,440	13%	10,140	11,670	1,530	15%	12%	20%
Hercules	8,550	13,360	4,810	56%	8,120	12,830	4,710	58%	20%	45%
Lafayette	9,650	11,050	1,400	15%	9,220	10,610	1,390	15%	20%	27%
Martinez	14,980	16,600	1,630	11%	14,290	15,940	1,650	12%	5%	9%
Moraga	5,750	7,030	1,270	22%	5,570	6,750	1,180	21%	8%	16%
Oakley	11,480	18,140	6,660	58%	10,730	16,640	5,920	55%	19%	32%
Orinda	6,800	7,440	630	9%	6,550	7,140	590	9%	5%	7%
Pinole	7,160	8,270	1,110	16%	6,780	7,940	1,160	17%	27%	33%
Pittsburg	21,130	29,450	8,320	39%	19,530	28,270	8,740	45%	27%	43%
Pleasant Hill	14,320	15,940	1,620	11%	13,710	15,300	1,590	12%	14%	16%
Richmond	39,330	46,440	7,110	18%	36,090	44,580	8,490	24%	27%	31%
San Pablo	9,570	11,690	2,120	22%	8,760	11,220	2,460	28%	33%	41%
San Ramon	26,220	30,220	3,990	15%	25,280	29,010	3,720	15%	2%	10%
Walnut Creek	32,680	35,110	2,430	7%	30,510	33,710	3,200	10%	4%	10%
Unincorporated	62,400	73,890	11,490	18%	57,640	70,940	13,300	23%	12%	21%

Marin County Jurisdictions	Housing Units				Households					
	2010	2040	2010- 2040		2010	2040	2010- 2040		PDA Share	
			Total	%			Total	%	2010	2040
Belvedere	1,050	1,070	20	2%	930	1,020	90	10%	0%	0%
Corte Madera	4,030	4,230	210	5%	3,790	4,060	270	7%	0%	0%
Fairfax	3,590	3,890	310	9%	3,380	3,740	360	11%	0%	0%
Larkspur	6,380	6,520	140	2%	5,910	6,260	350	6%	0%	0%
Mill Valley	6,530	7,110	570	9%	6,080	6,820	740	12%	0%	0%
Novato	21,160	22,050	890	4%	20,280	21,170	890	4%	0%	0%
Ross	880	960	80	9%	800	930	130	16%	0%	0%
San Anselmo	5,540	5,990	460	8%	5,240	5,750	510	10%	0%	0%
San Rafael	24,010	26,830	2,820	12%	22,760	25,760	2,990	13%	19%	26%
Sausalito	4,540	4,910	380	8%	4,110	4,720	600	15%	0%	0%
Tiburon	4,030	4,360	330	8%	3,730	4,190	460	12%	0%	0%
Unincorporated	29,500	31,440	1,940	7%	26,190	29,990	3,800	15%	16%	16%

Napa County Jurisdictions	Housing Units				Households					
	2010	2040	2010- 2040		2010	2040	2010- 2040		PDA Share	
			Total	%			Total	%	2010	2040
American Canyon	5,980	7,910	1,920	32%	5,660	7,590	1,930	34%	7%	26%
Calistoga	2,320	2,370	50	2%	2,020	2,290	270	13%	0%	0%
Napa	30,150	33,460	3,310	11%	28,170	32,120	3,950	14%	3%	5%
St. Helena	2,780	2,830	60	2%	2,400	2,740	340	14%	0%	0%
Yountville	1,250	1,280	30	2%	1,050	1,240	190	18%	0%	0%
Unincorporated	12,280	12,560	280	2%	9,580	12,150	2,570	27%	0%	0%

San Francisco County Jurisdictions	Housing Units				Households					
	2010	2040	2010- 2040		2010	2040	2010- 2040		PDA Share	
			Total	%			Total	%	2010	2040
San Francisco	376,940	457,580	80,640	21%	345,810	439,280	93,470	27%	53%	61%

San Mateo County Jurisdictions	Housing Units				Households					
	2010	2040	2010- 2040		2010	2040	2010- 2040		PDA Share	
			Total	%			Total	%	2010	2040
Atherton	2,530	2,860	330	13%	2,330	2,750	420	18%	0%	0%
Belmont	11,030	12,070	1,040	9%	10,580	11,580	1,010	10%	8%	15%
Brisbane	1,930	7,030	5,100	264%	1,820	6,750	4,930	271%	0%	69%
Burlingame	13,030	16,940	3,910	30%	12,360	16,260	3,900	32%	58%	65%
Colma	590	840	250	42%	560	800	240	43%	96%	98%
Daly City	32,590	36,360	3,780	12%	31,090	34,910	3,820	12%	24%	31%
East Palo Alto	7,820	8,880	1,060	14%	6,940	8,520	1,580	23%	14%	21%
Foster City	12,460	13,780	1,320	11%	12,020	13,230	1,210	10%	0%	0%
Half Moon Bay	4,400	4,790	390	9%	4,150	4,590	440	11%	0%	0%
Hillsborough	3,910	4,260	350	9%	3,690	4,090	400	11%	0%	0%
Menlo Park	13,090	15,050	1,970	15%	12,350	14,450	2,100	17%	23%	28%
Millbrae	8,370	10,690	2,320	28%	7,990	10,270	2,270	28%	35%	44%
Pacifica	14,520	15,420	890	6%	13,970	14,800	830	6%	0%	0%
Portola Valley	1,900	2,070	180	9%	1,750	2,010	270	15%	0%	0%
Redwood City	29,170	37,290	8,130	28%	27,960	35,800	7,850	28%	20%	33%
San Bruno	15,360	19,460	4,100	27%	14,700	18,680	3,980	27%	36%	49%
San Carlos	12,020	14,130	2,120	18%	11,520	13,570	2,040	18%	29%	34%
San Mateo	40,010	49,610	9,600	24%	38,230	47,630	9,390	25%	33%	44%
South San Francisco	21,810	28,120	6,310	29%	20,940	27,000	6,060	29%	33%	48%
Woodside	2,160	2,290	140	6%	1,980	2,200	230	12%	0%	0%
Unincorporated	22,350	27,310	4,960	22%	20,910	26,220	5,300	25%	30%	42%

Santa Clara County Jurisdictions	Housing Units				Households					
	2010	2040	2010- 2040		2010	2040	2010- 2040		PDA Share	
			Total	%			Total	%	2010	2040
Campbell	16,950	20,090	3,140	19%	16,160	19,280	3,120	19%	12%	26%
Cupertino	21,030	25,820	4,790	23%	20,170	24,780	4,620	23%	15%	23%
Gilroy	14,850	18,010	3,160	21%	14,180	17,290	3,120	22%	18%	27%
Los Altos	11,200	16,820	5,620	50%	10,740	16,150	5,410	50%	7%	32%
Los Altos Hills	3,000	3,040	40	1%	2,790	2,920	130	5%	0%	0%
Los Gatos	13,050	14,190	1,140	9%	12,360	13,620	1,270	10%	11%	10%
Milpitas	19,810	29,590	9,790	49%	19,180	28,410	9,230	48%	6%	30%
Monte Sereno	1,290	1,410	120	9%	1,210	1,360	140	12%	0%	0%
Morgan Hill	12,860	17,750	4,890	38%	12,330	17,830	5,500	45%	4%	11%
Mountain View	33,880	44,060	10,170	30%	31,960	42,290	10,340	32%	58%	64%
Palo Alto	28,220	35,340	7,130	25%	26,360	33,930	7,570	29%	25%	40%
San Jose	314,040	430,910	116,870	37%	301,390	413,680	112,290	37%	33%	49%
Santa Clara	45,150	56,450	11,310	25%	43,020	54,200	11,170	26%	9%	19%
Saratoga	11,120	12,010	890	8%	10,730	11,530	800	7%	2%	2%
Sunnyvale	55,790	74,430	18,640	33%	53,370	71,450	18,090	34%	39%	50%
Unincorporated	29,690	33,200	3,510	12%	28,230	31,870	3,640	13%	1%	1%

Solano County Jurisdictions	Housing Units				Households					
	2010	2040	2010- 2040		2010	2040	2010- 2040		PDA Share	
			Total	%			Total	%	2010	2040
Benicia	11,310	12,930	1,620	14%	10,690	12,410	1,720	16%	5%	12%
Dixon	6,170	6,780	610	10%	5,860	6,510	650	11%	12%	15%
Fairfield	37,180	52,610	15,420	41%	34,480	51,770	17,290	50%	10%	28%
Rio Vista	3,890	4,260	370	10%	3,450	4,090	640	19%	9%	17%
Suisun City	9,450	11,010	1,550	16%	8,920	10,570	1,650	18%	12%	21%
Vacaville	32,810	38,300	5,480	17%	31,090	37,810	6,720	22%	3%	4%
Vallejo	44,430	47,800	3,370	8%	40,560	45,890	5,330	13%	2%	4%
Unincorporated	7,450	8,720	1,280	17%	6,710	8,370	1,660	25%	0%	0%

Sonoma County Jurisdictions	Housing Units				Households					
	2010	2040	2010- 2040		2010	2040	2010- 2040		PDA Share	
			Total	%			Total	%	2010	2040
Cloverdale	3,430	4,280	850	25%	3,180	4,110	930	29%	33%	44%
Cotati	3,140	3,710	570	18%	2,980	3,570	590	20%	28%	35%
Healdsburg	4,800	5,090	290	6%	4,390	4,890	500	11%	0%	0%
Petaluma	22,740	25,940	3,200	14%	21,740	24,900	3,160	15%	3%	10%
Rohnert Park	16,550	20,550	3,990	24%	15,810	19,720	3,920	25%	9%	23%
Santa Rosa	67,400	87,180	19,790	29%	63,590	85,190	21,600	34%	28%	40%
Sebastopol	3,470	3,920	460	13%	3,280	3,760	490	15%	72%	74%
Sonoma	5,540	5,720	170	3%	4,960	5,540	580	12%	0%	0%
Windsor	9,540	11,790	2,250	24%	8,960	11,520	2,560	29%	15%	22%
Unincorporated	67,970	73,540	5,570	8%	56,950	70,600	13,650	24%	12%	14%

2 Employment Distribution by Jurisdiction

Alameda County Jurisdictions	Employment					
	2010	2040	2010- 2040		PDA Share	
			Total	%	2010	2040
Alameda	24,030	33,160	9,130	38%	15%	36%
Albany	4,210	5,660	1,450	34%	45%	45%
Berkeley	77,020	99,100	22,080	29%	30%	33%
Dublin	16,760	28,060	11,300	67%	28%	53%
Emeryville	16,040	23,620	7,580	47%	70%	78%
Fremont	89,900	120,250	30,360	34%	46%	48%
Hayward	69,100	90,180	21,070	30%	16%	20%
Livermore	38,370	52,560	14,190	37%	38%	43%
Newark	17,870	23,560	5,690	32%	6%	11%
Oakland	190,250	270,860	80,610	42%	82%	83%
Piedmont	1,930	2,410	490	25%	0%	0%
Pleasanton	54,230	71,840	17,610	32%	18%	24%
San Leandro	39,900	52,890	12,990	33%	33%	40%
Union City	20,560	25,410	4,850	24%	2%	11%
Unincorporated	34,270	47,340	29,490	38%	45%	52%

Contra Costa County Jurisdictions	Employment					
	2010	2040	2010- 2040		PDA Share	
			Total	%	2010	2040
Antioch	19,070	25,740	6,670	35%	21%	31%
Brentwood	8,650	11,410	2,760	32%	0%	0%
Clayton	1,540	1,910	380	24%	0%	0%
Concord	47,520	67,980	20,450	43%	17%	39%
Danville	13,440	17,670	4,230	31%	0%	0%
El Cerrito	5,880	7,600	1,720	29%	60%	58%
Hercules	3,880	6,450	2,580	66%	71%	76%
Lafayette	10,640	13,970	3,330	31%	56%	57%
Martinez	18,300	22,550	4,250	23%	22%	23%
Moraga	4,740	6,070	1,330	28%	0%	0%
Oakley	3,740	6,890	3,150	84%	47%	69%
Orinda	5,530	7,370	1,840	33%	58%	58%
Pinole	6,740	8,470	1,730	26%	78%	78%
Pittsburg	14,130	20,020	5,880	42%	50%	58%
Pleasant Hill	17,360	23,010	5,650	33%	41%	45%
Richmond	30,670	41,280	10,610	35%	51%	53%
San Pablo	7,460	9,720	2,260	30%	77%	81%
San Ramon	43,880	57,820	13,930	32%	50%	56%
Walnut Creek	41,650	55,400	13,740	33%	18%	21%
Unincorporated	40,100	56,520	29,490	41%	18%	21%

Marin County Jurisdictions	Employment					
	2010	2040	2010- 2040		PDA Share	
			Total	%	2010	2040
Belvedere	430	500	70	16%	0%	0%
Corte Madera	7,940	8,380	440	6%	0%	0%
Fairfax	1,490	1,870	370	25%	0%	0%
Larkspur	7,190	7,940	750	10%	0%	0%
Mill Valley	5,980	7,140	1,160	19%	0%	0%
Novato	20,890	24,280	3,390	16%	0%	0%
Ross	510	620	110	22%	0%	0%
San Anselmo	3,740	4,610	870	23%	0%	0%
San Rafael	37,620	43,810	6,190	16%	37%	39%
Sausalito	6,220	7,730	1,510	24%	0%	0%
Tiburon	2,340	2,880	540	23%	0%	0%
Unincorporated	16,380	20,270	3,890	24%	14%	15%

Napa County Jurisdictions	Employment					
	2010	2040	2010- 2040		PDA Share	
			Total	%	2010	2040
American Canyon	2,920	4,150	1,230	42%	44%	51%
Calistoga	2,220	2,750	530	24%	0%	0%
Napa	33,950	44,320	10,370	31%	32%	30%
St. Helena	5,340	6,510	1,170	22%	0%	0%
Yountville	1,600	2,030	430	27%	0%	0%
Unincorporated	24,630	30,460	5,830	24%	0%	0%

San Francisco County Jurisdictions	Employment					
	2010	2040	2010- 2040		PDA Share	
			Total	%	2010	2040
San Francisco	568,720	743,790	175,060	31%	83%	85%

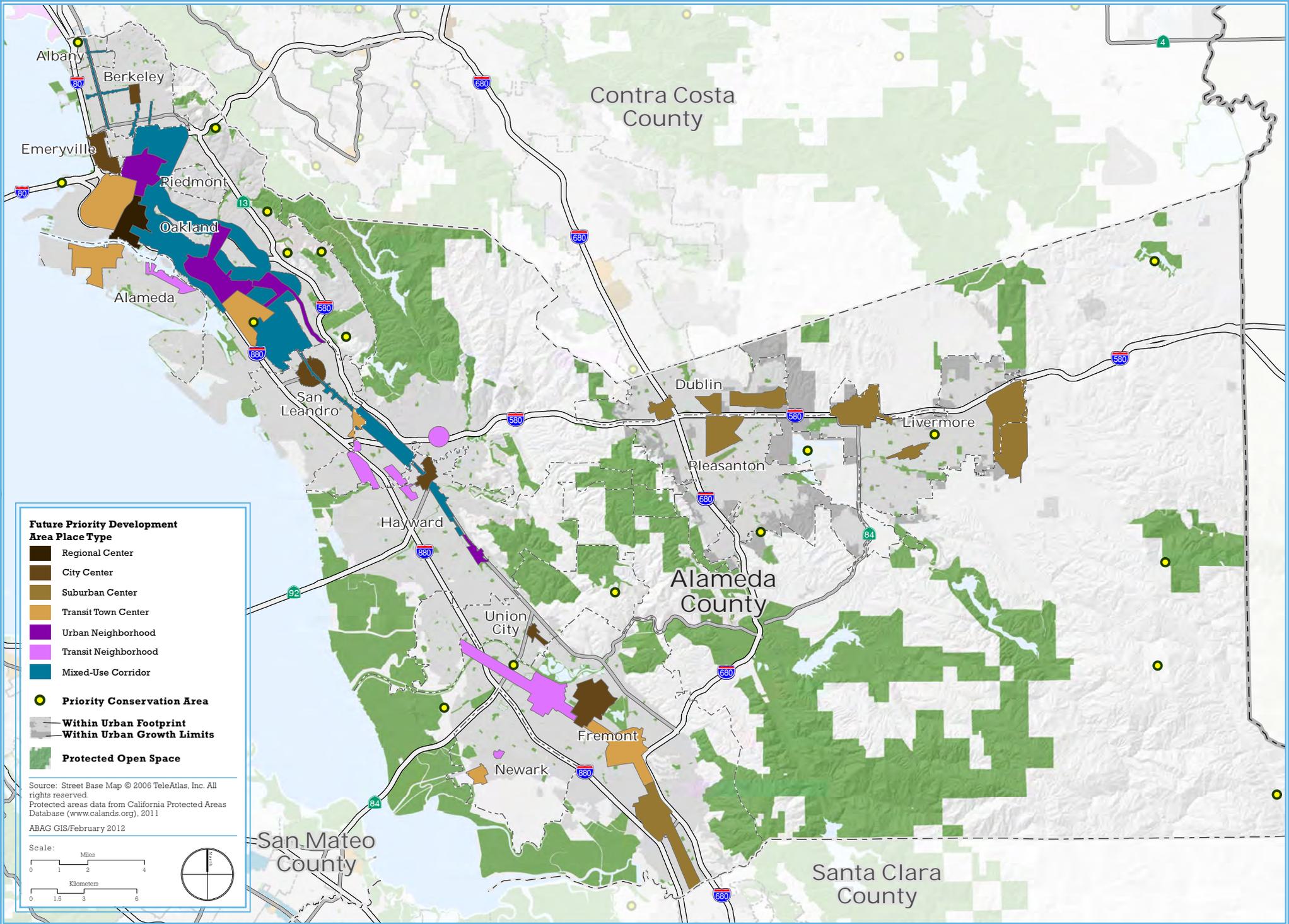
San Mateo County Jurisdictions	Employment					
	2010	2040	2010- 2040		PDA Share	
			Total	%	2010	2040
Atherton	2,610	3,360	750	29%	0%	0%
Belmont	8,220	10,390	2,160	26%	15%	24%
Brisbane	7,220	22,760	15,540	215%	8%	67%
Burlingame	30,420	39,020	8,600	28%	41%	47%
Colma	2,790	3,210	420	15%	76%	75%
Daly City	21,000	26,280	5,280	25%	31%	37%
East Palo Alto	2,720	3,810	1,090	40%	30%	32%
Foster City	13,890	17,590	3,710	27%	0%	0%
Half Moon Bay	5,110	6,190	1,080	21%	0%	0%
Hillsborough	2,190	2,650	460	21%	0%	0%
Menlo Park	28,990	35,020	6,030	21%	25%	28%
Millbrae	6,950	9,130	2,180	31%	73%	78%
Pacifica	5,920	7,430	1,510	25%	0%	0%
Portola Valley	1,510	1,890	390	26%	0%	0%
Redwood City	58,340	77,250	18,910	32%	37%	38%
San Bruno	12,930	17,070	4,140	32%	65%	72%
San Carlos	16,170	19,860	3,690	23%	63%	64%
San Mateo	52,930	73,100	20,180	38%	48%	61%
South San Francisco	46,170	57,070	10,900	24%	16%	23%
Woodside	1,770	2,190	430	24%	0%	0%
Unincorporated	17,350	22,640	5,290	30%	37%	42%

Santa Clara County Jurisdictions	Employment					
	2010	2040	2010- 2040		PDA Share	
			Total	%	2010	2040
Campbell	27,230	34,920	7,700	28%	41%	42%
Cupertino	25,990	33,260	7,270	28%	40%	42%
Gilroy	17,600	22,000	4,390	25%	27%	30%
Los Altos	14,700	19,710	5,020	34%	39%	47%
Los Altos Hills	3,580	4,450	870	24%	0%	0%
Los Gatos	23,580	29,120	5,540	23%	9%	9%
Milipitas	45,060	56,460	11,400	25%	12%	18%
Monte Sereno	450	590	140	32%	0%	0%
Morgan Hill	17,520	22,770	5,250	30%	9%	13%
Mountain View	47,800	63,560	15,750	33%	73%	79%
Palo Alto	89,370	118,650	29,270	33%	37%	39%
San Jose	375,360	515,450	140,090	37%	66%	74%
Santa Clara	112,460	144,460	32,000	28%	22%	23%
Saratoga	11,870	14,560	2,690	23%	10%	12%
Sunnyvale	74,610	94,850	20,240	27%	72%	77%
Unincorporated	39,060	48,040	8,970	23%	40%	48%

Solano County Jurisdictions	Employment					
	2010	2040	2010- 2040		PDA Share	
			Total	%	2010	2040
Benicia	14,240	18,980	4,740	33%	65%	73%
Dixon	4,460	5,800	1,340	30%	12%	14%
Fairfield	39,300	55,380	16,070	41%	15%	21%
Rio Vista	1,790	2,390	600	34%	37%	42%
Suisun City	3,080	4,550	1,470	48%	34%	44%
Vacaville	29,800	41,930	12,130	41%	12%	13%
Vallejo	31,660	43,430	11,770	37%	12%	14%
Unincorporated	8,010	10,860	2,850	36%	4%	8%

Sonoma County Jurisdictions	Employment					
	2010	2040	2010- 2040		PDA Share	
			Total	%	2010	2040
Cloverdale	1,570	2,290	720	46%	53%	58%
Cotati	2,920	3,870	950	32%	22%	31%
Healdsburg	6,440	8,300	1,860	29%	0%	0%
Petaluma	28,830	38,570	9,740	34%	11%	22%
Rohnert Park	11,730	16,360	4,640	40%	30%	39%
Santa Rosa	75,460	105,760	30,300	40%	59%	59%
Sebastopol	5,650	7,320	1,670	29%	96%	97%
Sonoma	6,650	8,930	2,280	34%	0%	0%
Windsor	5,610	8,010	2,400	43%	18%	23%
Unincorporated	47,150	62,950	15,800	34%	23%	32%

3 Maps of Priority Development Areas by County

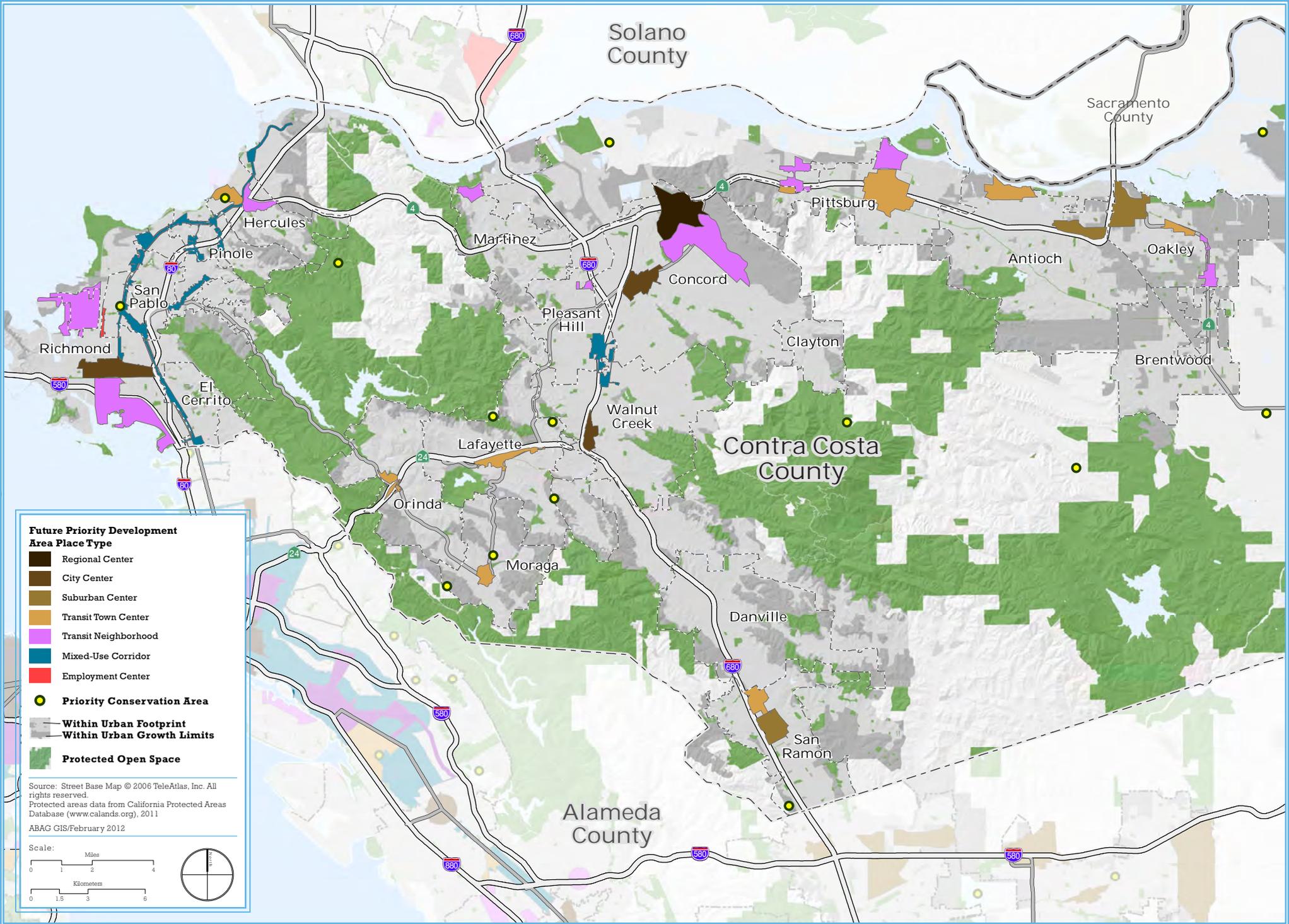


- Future Priority Development Area Place Type**
- Regional Center
 - City Center
 - Suburban Center
 - Transit Town Center
 - Urban Neighborhood
 - Transit Neighborhood
 - Mixed-Use Corridor
 - Priority Conservation Area
 - Within Urban Footprint
 - Within Urban Growth Limits
 - Protected Open Space

Source: Street Base Map © 2006 TeleAtlas, Inc. All rights reserved.
 Protected areas data from California Protected Areas Database (www.calands.org), 2011
 ABAG GIS/February 2012

Scale:
 0 1 2 4 Miles
 0 1.5 3 6 Kilometers





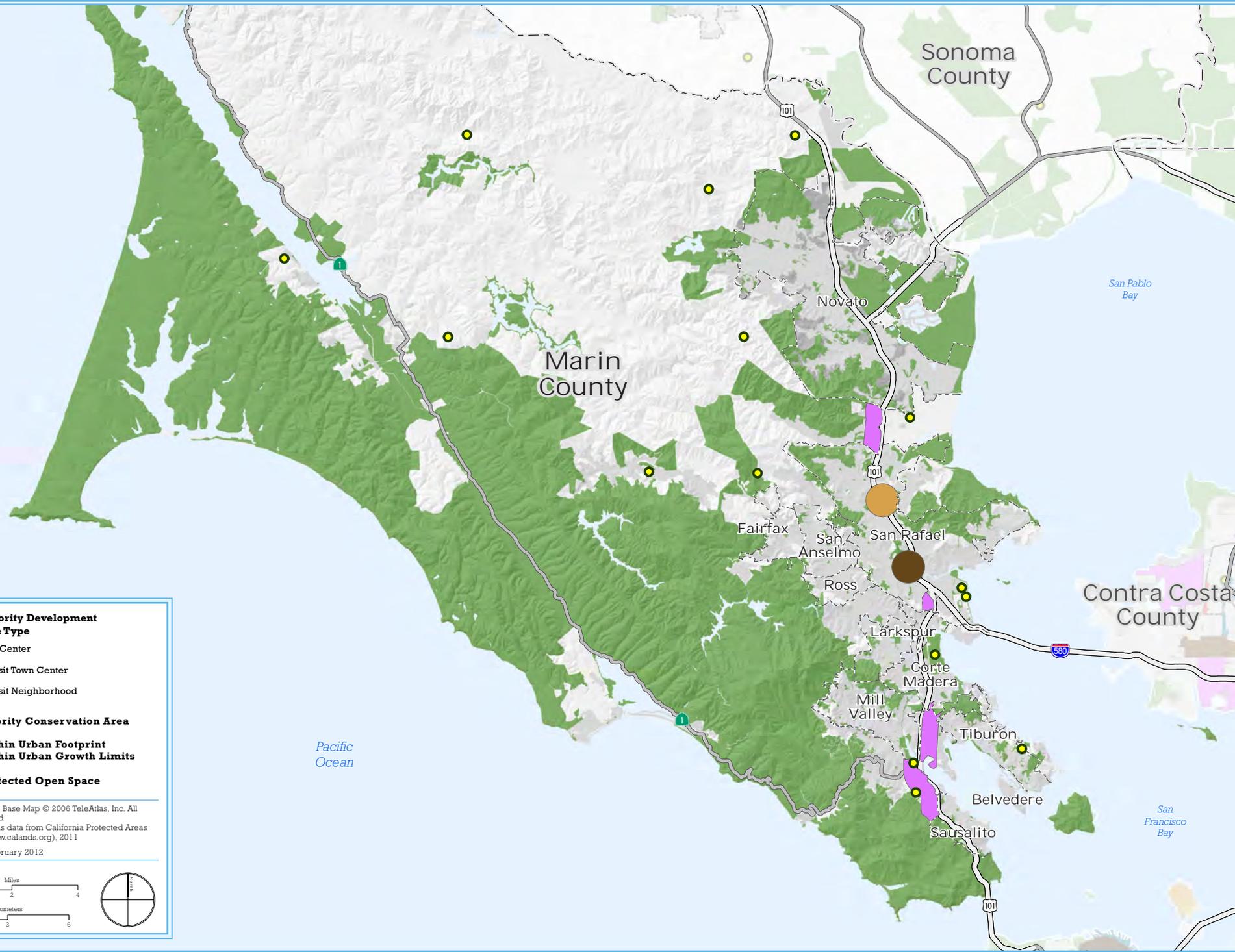
Future Priority Development Area Place Type

- Regional Center
- City Center
- Suburban Center
- Transit Town Center
- Transit Neighborhood
- Mixed-Use Corridor
- Employment Center
- Priority Conservation Area
- Within Urban Footprint
- Within Urban Growth Limits
- Protected Open Space

Source: Street Base Map © 2006 TeleAtlas, Inc. All rights reserved.
 Protected areas data from California Protected Areas Database (www.calands.org), 2011
 ABAG GIS/February 2012

Scale:
 0 2 4 Miles
 0 1.5 3 6 Kilometers





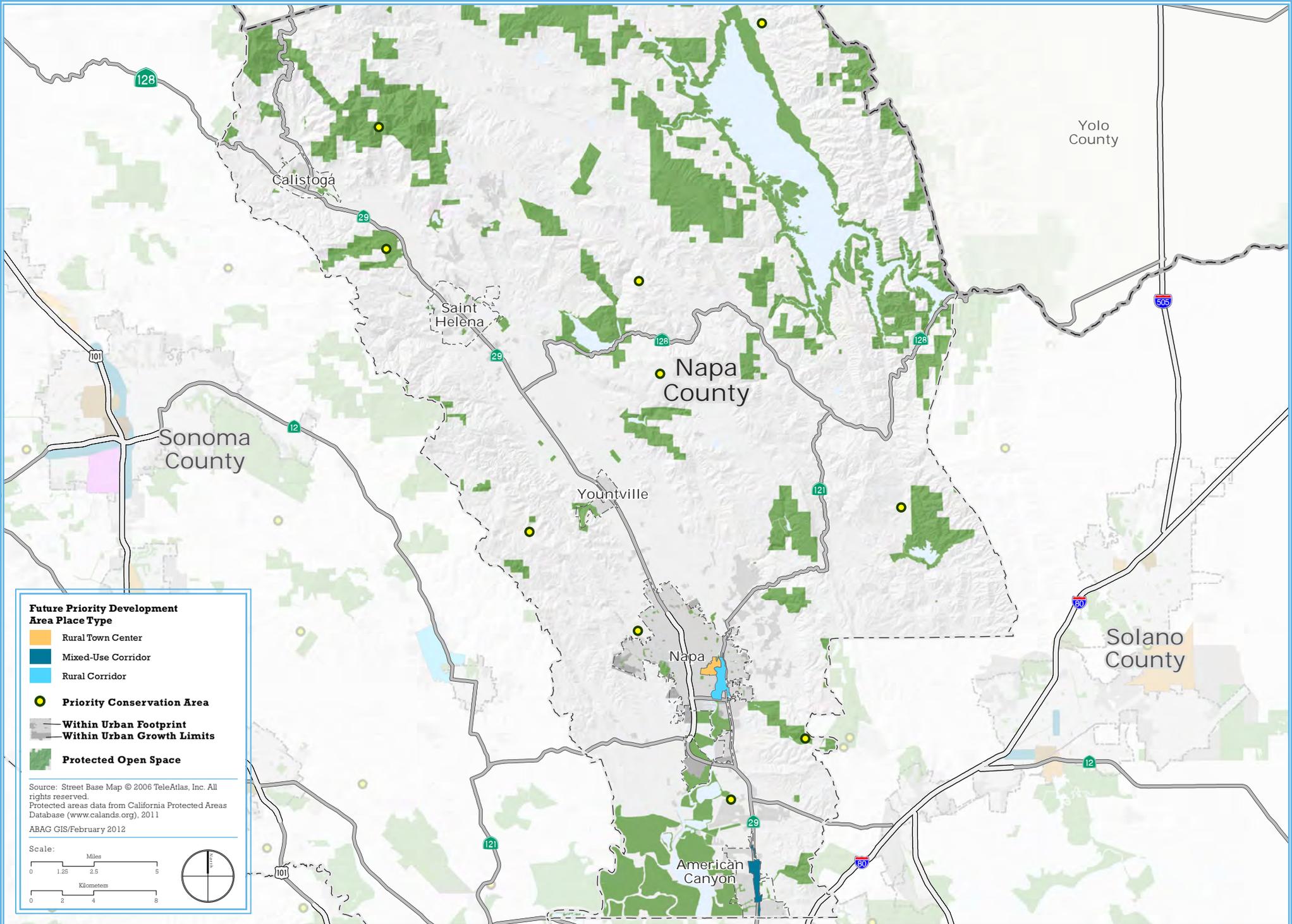
Future Priority Development Area Place Type

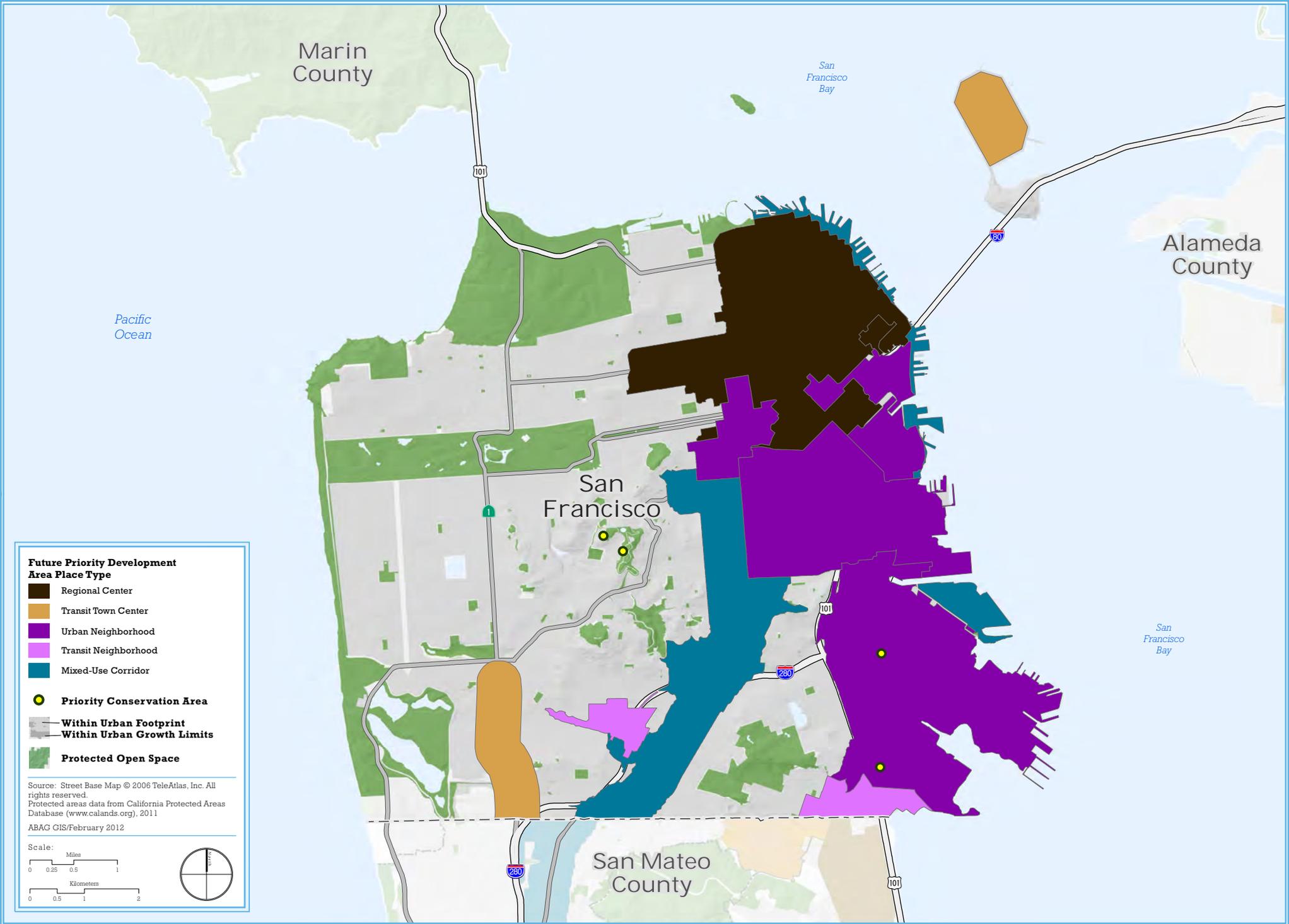
- City Center
- Transit Town Center
- Transit Neighborhood
- Priority Conservation Area
- Within Urban Footprint
- Within Urban Growth Limits
- Protected Open Space

Source: Street Base Map © 2006 TeleAtlas, Inc. All rights reserved.
 Protected areas data from California Protected Areas Database (www.calands.org), 2011
 ABAG GIS/February 2012

Scale: Miles 0 1 2 4
 Kilometers 0 1.5 3 6





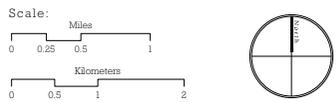


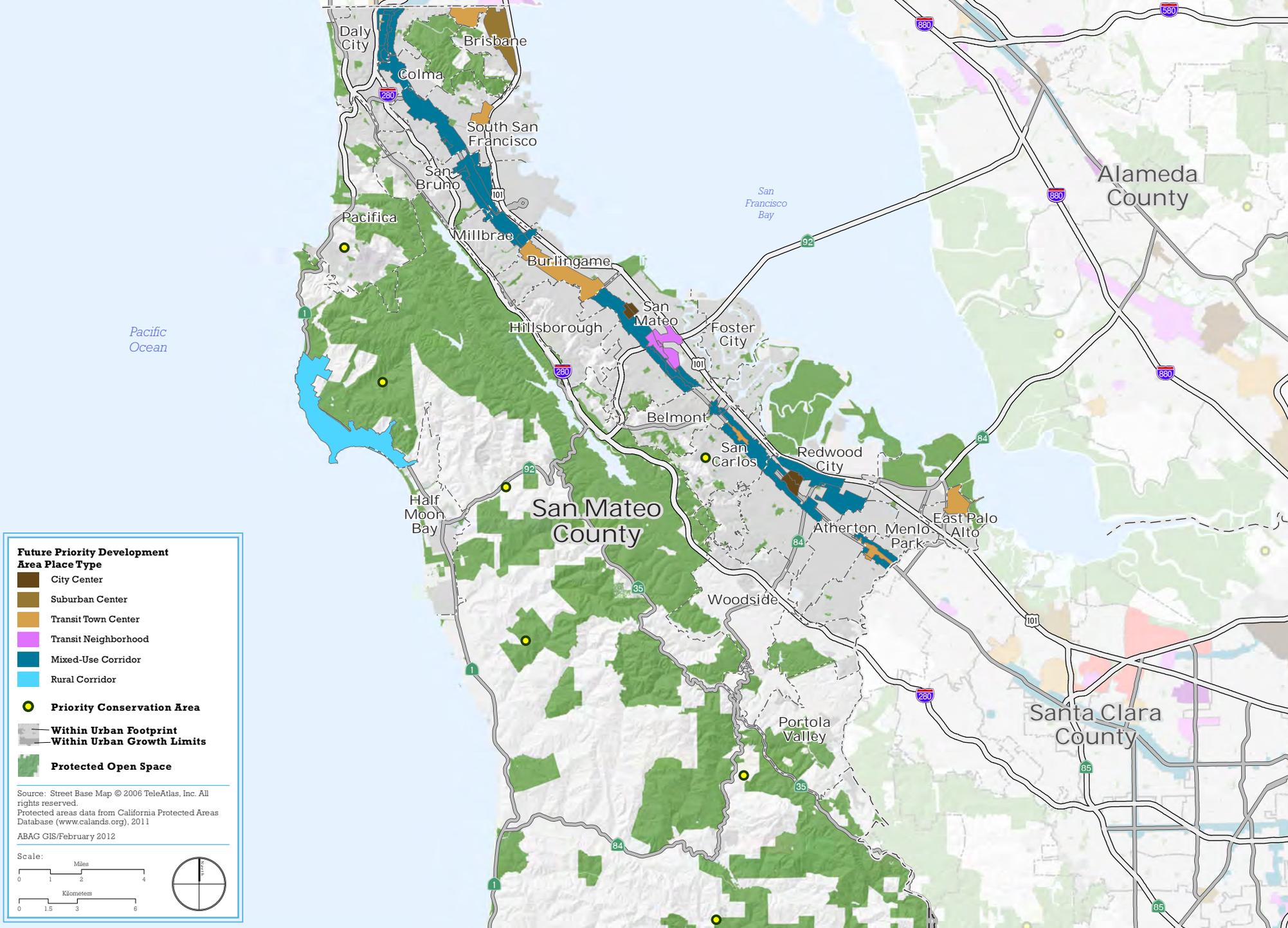
Future Priority Development Area Place Type

- Regional Center
- Transit Town Center
- Urban Neighborhood
- Transit Neighborhood
- Mixed-Use Corridor
- Priority Conservation Area
- Within Urban Footprint
- Within Urban Growth Limits
- Protected Open Space

Source: Street Base Map © 2006 TeleAtlas, Inc. All rights reserved.
 Protected areas data from California Protected Areas Database (www.calands.org), 2011

ABAG GIS/February 2012





Future Priority Development Area Place Type

- City Center
- Suburban Center
- Transit Town Center
- Transit Neighborhood
- Mixed-Use Corridor
- Rural Corridor

Priority Conservation Area

-

Within Urban Footprint

-

Within Urban Growth Limits

-

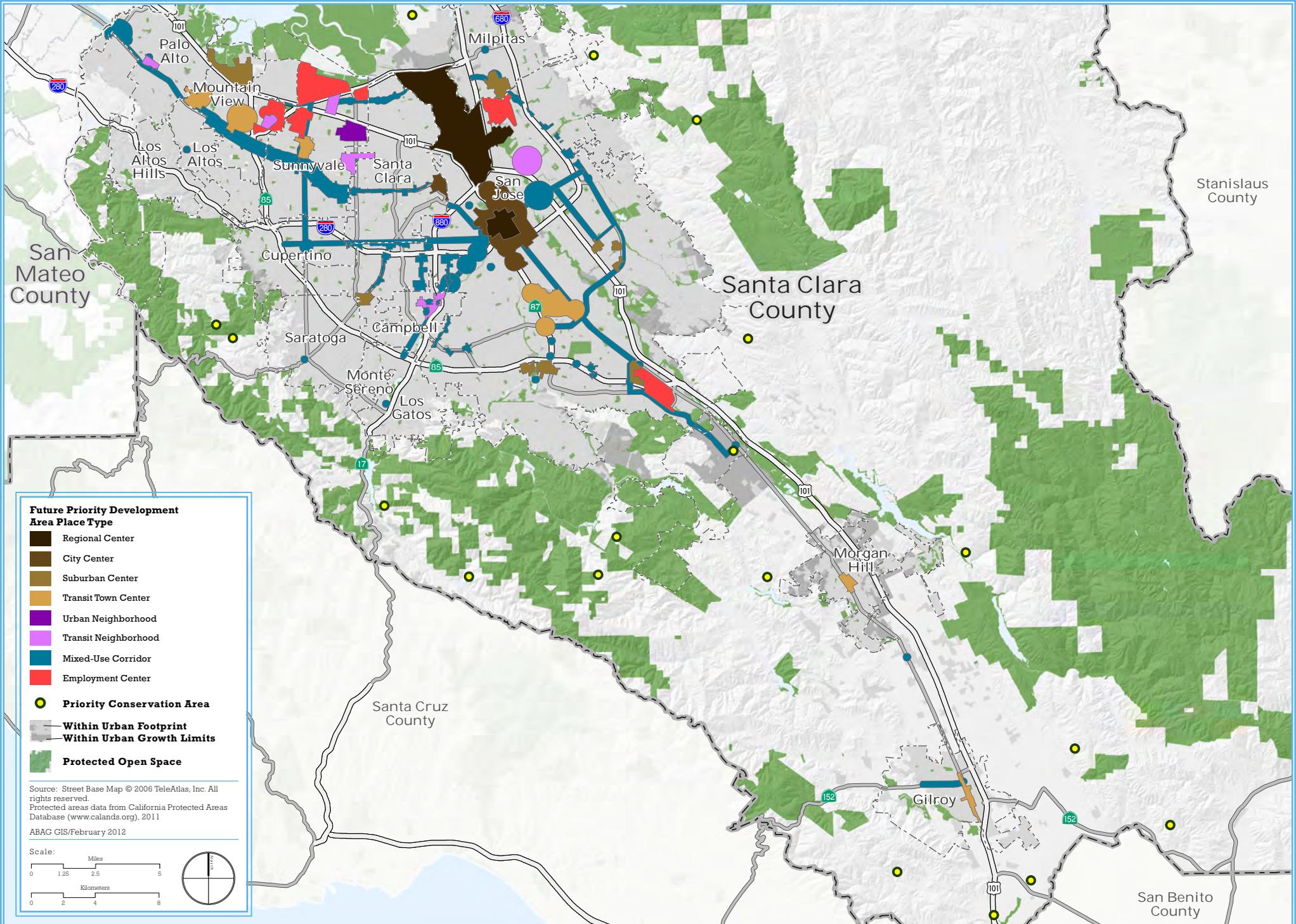
Protected Open Space

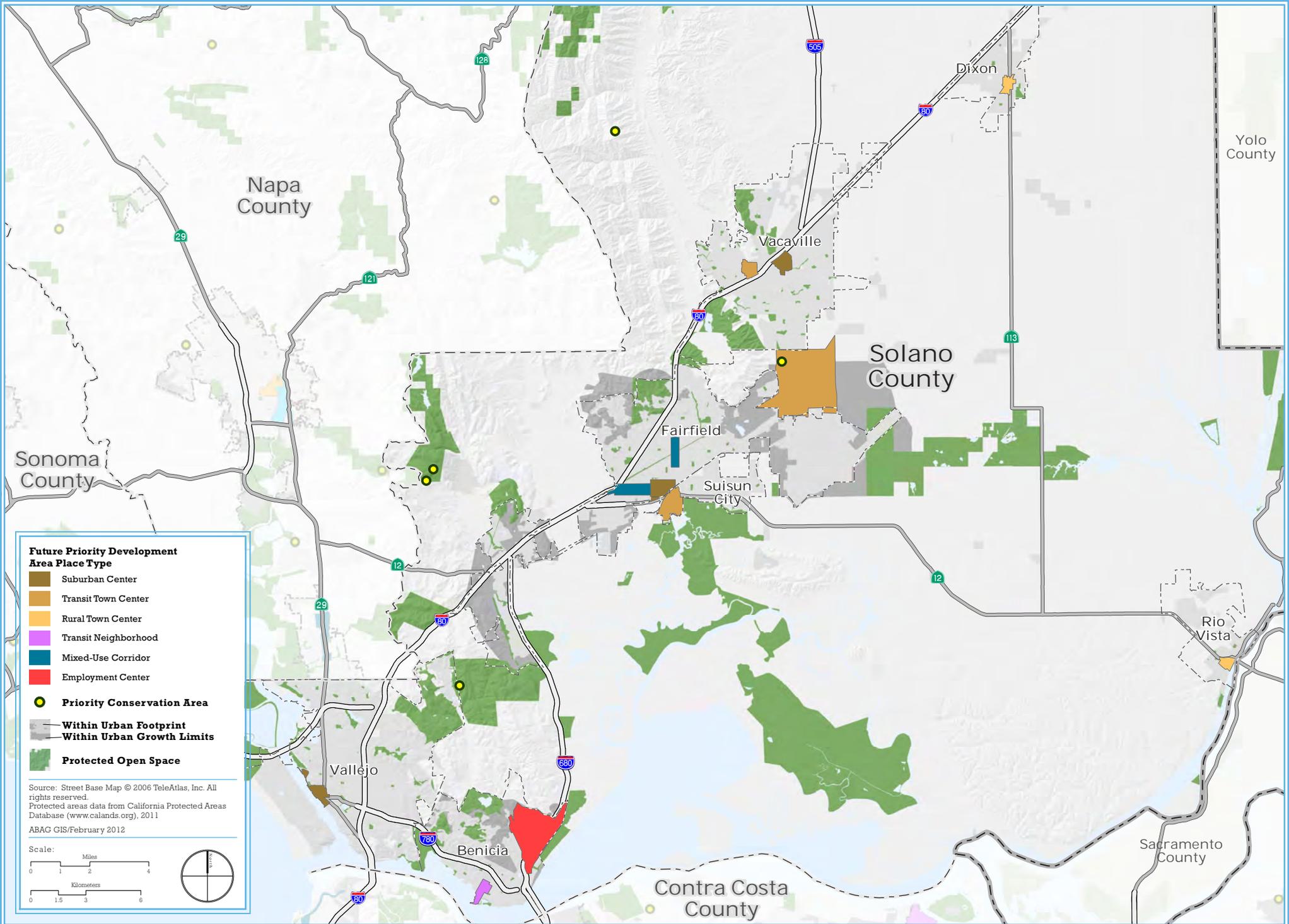
-

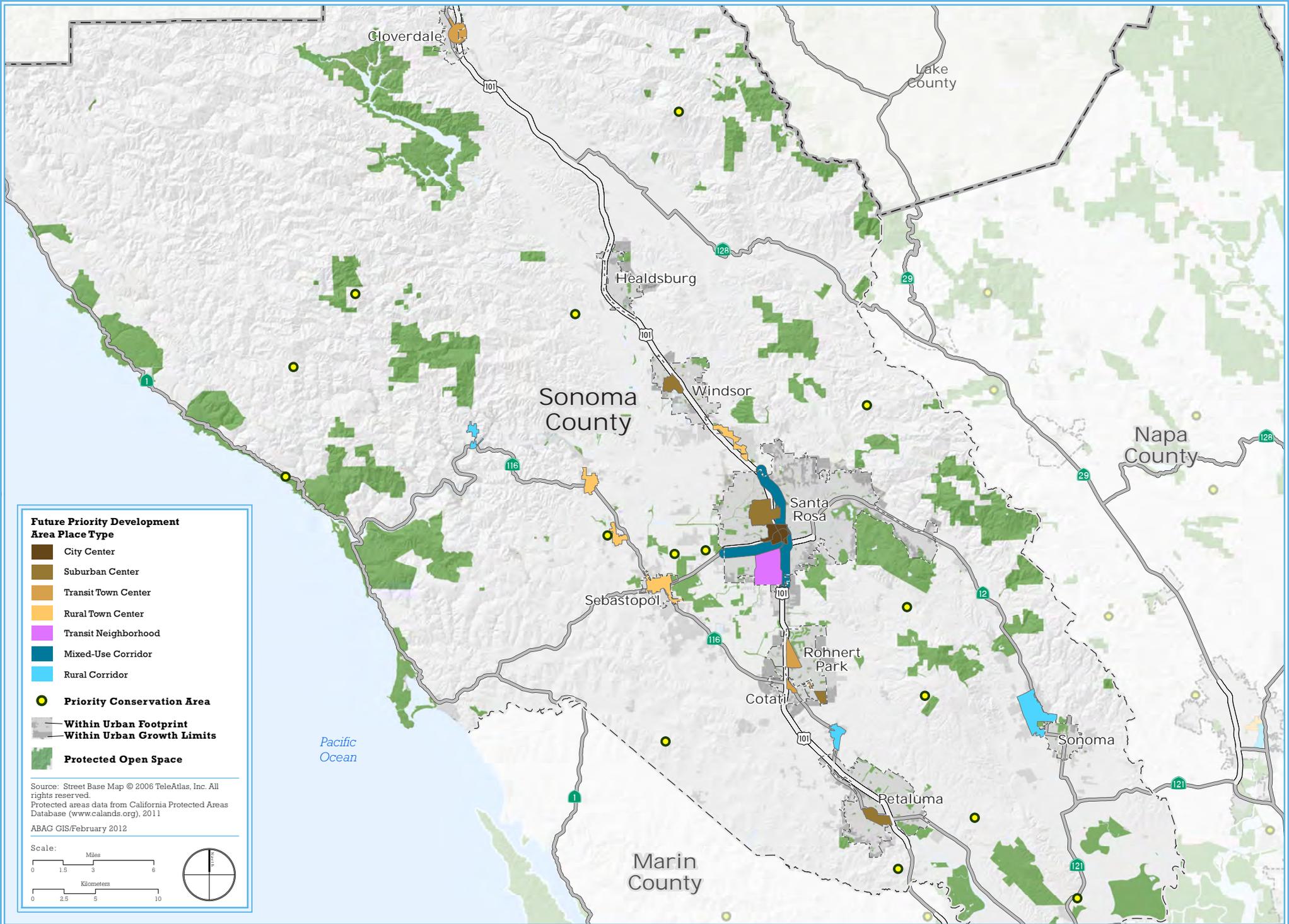
Source: Street Base Map © 2006 TeleAtlas, Inc. All rights reserved.
 Protected areas data from California Protected Areas Database (www.calands.org), 2011
 ABAG GIS/February 2012

Scale:
 0 1 2 4 Miles
 0 1.5 3 6 Kilometers









4 Summary of Regional Projection Economic and Demographic Assumptions

Population Profile

The age and ethnic composition of the region's future growth comes from: State of California, Department of Finance, *Population Projections for California and Its Counties 2000-2050*, Sacramento, California, July 2007. For each decade, the growth shares by age and ethnic composition are added to the 2010 base population profile from Census 2010 to get future year age and ethnic total population profiles. The net migration assumption for the Department of Finance forecast averages 177,000 statewide over the 50-year period, or approximately 35% of the growth.

Housing Units

A thirty-year average housing production level of 22,000 is assumed. This is based upon an analysis of past production and future policy supports, acknowledging that high housing costs and limited production is a factor constraining the ability of the region to accommodate future job growth.

Vacant Units

Vacant units are calculated by an assumed future vacancy rate of 4% of total housing units in future years, due to regular turnover of the housing stock.

Persons per Household

Existing headship rates – the ratio of household population to heads of households – by age and ethnic group are derived from the 2005-2009 American Community Survey 5-year average estimate. The existing headship rates by age and ethnic group are applied to the future year household population profile to get the future persons per household for the Bay Area. Changes in headship are not assumed – the change in the overall persons per household over time is solely a result of the changing population profile of the region.

Household Population

Total household population is calculated by multiplying the future persons per household by the future total households.

Group Quarters Population

The future group quarters population is calculated as a share of total population. The share is calculated using Census 2010 rates of group quarter population by age applied to the future year population profile.

Population

Total population is calculated by adding household population and group quarters population.

Non-Institutionalized Population

Similar to the group quarters population, non-institutionalized population is calculated as a share of total population. The share is calculated using Census 2010 rates of non-institutionalized population by age applied to the future year population profile.

Labor Force Participation Rates

For future labor force participation rates, we rely on: United States Department of Labor, Bureau of Labor Statistics, *Labor force participation rates, 2008-2018* and *Labor force participation rates, to 2050*. The future national labor force participation rates by age and ethnic group are applied to the future non-institutionalized population profile. The overall rate is then adjusted based upon the difference in 2010 between national and regional labor force participation to get the future labor force participation rate for the Bay Area.

Labor Force

Labor force is calculated by multiplying the future year non-institutionalized population by the future labor force participation rate.

Unemployment Rate

The assumption is for full employment levels in future years. This is assumed as a 5.1% unemployment rate per the Bureau of Labor Statistics.

Employed Residents

Employed residents are calculated by subtracting the unemployed residents from the labor force.

Unemployed residents are calculated by multiplying the labor force by the unemployment rate.

Employed Residents per Job

This ratio is influenced by levels of in-commuting and out-commuting as well as the number of employed residents holding multiple jobs. We have assumed that this ratio holds at the 2010 level, implying the rates of net in-commuting and multiple job-holding remain constant. This implies a small increase in in-commuting proportionate to the increase in total jobs in the region, but halts the trend of increasing rates of in-commuting into the region seen in recent decades, due to road capacity constraints and additional housing production supports within the region.

Jobs

Total potential jobs in the Bay Area are provided by Center for Continuing Study of the California Economy, based on an analysis of the Bay Area's share of national jobs by job sector and the region's competitiveness in these sectors. The forecast jobs are calculated from employed residents, holding the 2010 employed resident per job ratio of 0.966 constant. This assumption holds the rates of net in-commuting and multiple job holding constant into the future, as opposed to the increases experienced in the 80's and 90's. The resulting forecast jobs are about 100,000 jobs lower than the potential jobs in the economic forecast from the Center for Continuing Study of the California Economy.

5 Housing Distribution Methodology

The housing distribution takes into account local input and key sustainability, equity, and economic factors, including new data that help to better identify sustainable locations for growth and planned levels of development. The housing distribution is linked to existing and future transit service and expected level of greenhouse gas emissions from each area of the region, with the goal of utilizing the existing transit infrastructure efficiently and directing growth to places that can provide the best opportunity for emissions reductions. However, growth in each place is tied directly to locally-defined housing potential.

Data Sources

2010 Census Summary File 1 (U. S. Census Bureau)

The U.S. Census counts every resident in the United States. It is mandated by Article I, Section 2 of the Constitution and takes place every 10 years. National and state population totals from the 2010 Decennial Census were released on December 21, 2010. Redistricting data, which include additional state, county and local counts, were released starting in February 2011. Decennial Census population, housing unit, and household data for the region were obtained from the 2010 Census Summary File 1:

<http://factfinder2.census.gov/main.html>

Longitudinal Employment and Household Dynamics (U. S. Census Bureau)

The Longitudinal Employment and Household Dynamics (LEHD) program uses statistical and computing techniques to combine federal and state administrative data on employers and employees with core Census Bureau censuses and surveys. The program provides employment statistics on employment, job creation, turnover, and earnings by industry, age and sex at the local, state, county and sub-county. More information on the LEHD data is available at: <http://lehd.did.census.gov/led/>

Regional Travel Demand Model (MTC)

Vehicle miles traveled (VMT) data at the Transportation Analysis Zone (TAZ) level from the Alternative Scenarios were obtained via MTC's Regional Travel Demand Model.

UrbanSim (UCBerkeley, Purdue University)

UrbanSim is a software-based simulation urban development model incorporating land use, transportation, economic, and environmental factors. Housing development potential data was obtained via the model's land use database, which includes current local general plan land use and zoning designations.

<http://www.urbansim.org/Main/WebHome>

National Establishment Times-Series (Walls & Associates / Dun and Bradstreet)

Walls & Associates converts Dun and Bradstreet archival establishment data into a time-series database of establishment information called the National Establishment Times-Series (NETS) Database. The NETS data is gathered by individual business and includes number of jobs, industry type, and location. ABAG has analyzed the NETS data to provide information on the spatial distribution of jobs at the jurisdiction and PDA level by employment sector, as well as changes in spatial distribution at these geographies from 1989-2009. More information on the NETS data is available at:

<http://www.youreconomy.org/nets/?region=Walls>

Housing Distribution Factors

Locally-based Development Potential

Housing development potential was used as the basis for distributing household growth to each area. The potential for housing development up to 2040 for each place was determined from existing and future land use data and local growth potential information from the following three sources:

1. **Local input on SCS scenarios**

Local feedback on the SCS scenarios through letters, emails, meetings, and the SCS Basecamp forum, the PDA Assessment, and new applications for PDA designation provided detailed information on planned growth in specific PDAs and jurisdictions.

2. **PDA Place Types**

Locally-selected place types by PDA served as a reference on the scale of growth proposed in each PDA.

3. **UrbanSim Land Use Data (*new*)**

The UrbanSim forecasting model includes a land use database with current local zoning designations and general plan land use designations. Development potential up to 2040 for each area within the region was determined via analysis of the local zoning and land use designations.

Sustainability, Equity and Economic Factors

1. **Transit**

Each area throughout the region was identified by its highest level of transit service. Growth was distributed based on transit tiers, with the goal of utilizing the existing transit infrastructure more efficiently; places with high levels of transit service were directed commensurately more growth.

Transit Tiers:

- Tier 1: BART, Muni Metro, VTA Light Rail, Caltrain
- Tier 2: ACE, Amtrak Capital Corridor, SMART, eBART, Bus Rapid Transit corridors
- Tier 3: All other transit (bus, ferry, etc.)

2. **Vehicle Miles Traveled per Household (*new*)**

Vehicle Miles Traveled (VMT) data¹ for each PDA and non-PDA area is available from MTC's Regional Travel Demand Model. The 2040 VMT per household measure modeled from the best-performing SCS Alternative Scenario was used in the distribution to identify the places that are expected to result in the lowest greenhouse gas emissions (the VMT per household measure is highly correlated with greenhouse gas emissions). Each place was categorized by VMT tier, shown below.

VMT per Household Tiers:

- Tier 1: 0-25 vmt/hh
- Tier 2: 25-35 vmt/hh
- Tier 3: 35-45 vmt/hh
- Tier 4: 45+ vmt/hh

3. **Current housing vacancy data (*new*)**

To account for current vacant housing units, identified via the 2010 U.S. Census, vacancy absorption was factored into the housing distribution. Vacancy absorption is the number of existing vacant units that are available to accommodate new households in an area; it reduces the total number of new units that will have to be built in an area to accommodate growth to 2040. The vacancy absorption calculation allows for up to 4% vacancy in each area.

¹ VMT by place of residence for all home-based trips was used for the housing distribution.

4. **Employment Factor (*revised*)**

To link housing growth more closely to job centers, the initial housing distribution was adjusted by an employment adjustment factor for each area, based on the Jobs-Housing Connection Scenario 2040 employment for each jurisdiction.

5. **Net Low-income In-commuting Factor**

To shift growth to places that are importing many low-income workers, a net low-income in-commuting factor was used to adjust the initial housing distribution. U.S. Census Bureau LEHD data was used to determine the number of workers commuting to and from the jurisdiction by income category in 2009 and previous years.

6. **Housing Value Factor**

To shift housing growth to places that offer high quality services (schools, infrastructure, parks, etc.), the initial housing distribution was adjusted by a housing value factor, based on jurisdictional median home value.

Methodology

1. Housing unit growth was added to each PDA's and non-PDA area's 2010 housing unit value based on each area's housing development potential, adjusted by Transit-VMT Tier growth adjustment rates and distributed via the steps described below.

Transit-VMT Tier Adjustment Rates

Transit Tier	VMT Tier	Growth Adjustment Rate
1	1	1.1
1	2	1.25
1	3	1.2
1	4	1.15
2	1	1.25
2	2	1.2
2	3	1.15
2	4	1
3	1	1.2
3	2	1
3	3	1
3	4	0.75

Housing Distribution Steps

Step	Area	Base Housing Unit Growth	Growth Adjustment
1	Any VMT Tier 1 area	PDAs: Local feedback level of growth Other areas: UrbanSim development potential	Maximum of Base Growth or Transit-VMT Tier Rate x Base Growth. <i>No adjustment for PDA areas if planned level of growth exceeds Place Type mid-point unit level.</i>
2	All remaining PDAs (excluding Employment Centers): VMT Tiers 2, 3, 4	Local feedback level of growth	Maximum of Base Growth or Transit-VMT Tier Rate x Base Growth. <i>No adjustment for PDA areas if planned level of growth exceeds Place Type mid-point unit level.</i>
3	All remaining non-PDA areas (excluding areas outside of Urban Growth Boundaries/Urban Limit Lines)		Remainder of Regional Control Total x Core Constrained Alternative Scenario Share of Growth x Transit-VMT Tier Rate (less vacant housing units for places with vacancy >10%)

2. Growth in all areas was then adjusted plus or minus 10 percent based on the combined adjustment factors:
 - a. Housing Value (weight = 3)
 - b. Net Low-income In-commuting (weight = 2)
 - c. 2040 Employment (weight = 1)
3. Vacancy absorption was factored in for each area to obtain household growth.
4. The jurisdictional level of growth was adjusted up or down based on feedback, ensuring that growth in each place meets at least 5% of existing units. Growth from areas exceeding 115% of their locally-identified level of growth was re-balanced to areas under 75% of their locally-identified level of growth.

Feedback and Issues from Alternative Scenarios Housing Distribution

- Many jurisdictions commented that regional growth numbers were high, mainly compared to growth experienced over past couple of decades
- Methodology appeared to push more growth to PDAs and jurisdictions at a rate much greater than housing has historically been produced

- In general, larger jurisdictions were more comfortable with the levels of growth in their cities, while smaller jurisdictions felt the distributions were too high.
- The final distribution must be a combination of previous scenarios, as “no single scenario adequately meets the aspirations and conditions of [all] jurisdictions” as noted by the Contra Costa Transportation Authority.

Changes to methodology used in the Alternative Scenarios

- Revised methodology to adjust housing growth by transit type and VMT per household tiers, instead of transit type and job tiers. The rationale for this methodology is to direct growth to areas commensurate with each area’s existing level of transit infrastructure and service and expected level of greenhouse gas emissions
- Revised methodology to base housing growth on local plans and development potential instead of Place Type minimum levels of growth
- Linked the housing distribution to the 2040 job distribution rather than the 2010 job distribution.
- Did not apply the 40 percent household formation growth threshold to jurisdictions
- Did not cap PDA growth to 95 percent of jurisdictional growth
- Incorporated housing unit vacancy absorption into the analysis
- Applied consistent methodology across all areas of the region, both PDAs and areas outside of PDAs

6 Employment Distribution Methodology

The employment distribution takes into account employment growth by sector and is linked to transit infrastructure and local input. Employment growth is organized under three major groups: knowledge-sector jobs, population-serving jobs, and all other jobs. The knowledge-sector jobs are expected to grow based on current concentration, specialization, and past growth as well as transit service and access. Population-serving jobs, such as retail stores are expected to grow based on the number of residents per place. All other jobs are expected to grow according to the existing distribution of jobs in each of these sectors.

Data Sources

California Department of Transportation Sector Forecast (Caltrans)

Caltrans uses an econometric model to project employment by industry out to 2040 for each county in California. The agency's model uses variables and assumptions taken from the UCLA Anderson Forecast and historic employment data from EDD. The most recent projections were released in August 2011, titled *California County-Level Economic Forecast: 2011-2040*. In comparison, the most recent EDD and BLS projections available date from 2008 and 2009. A complete description of the 2011 Caltrans projection methodology and data out to 2040 is available at: http://www.dot.ca.gov/hq/tpp/offices/eab/socio_economic.html.

Center for Continuing Study of the California Economy (CCSCE)

Stephen Levy at CCSCE uses national short-term and long-term economic and demographic forecasts to prepare long-term regional economic projections by industry sector. Details on the CCSCE methodology and analysis are provided in a report, *Bay Area Job Growth to 2040: Projections and Analysis*.

Walls & Associates / Dun and Bradstreet (NETS)

Walls & Associates converts Dun and Bradstreet archival establishment data into a time-series database of establishment information called the National Establishment Times-Series (NETS) Database. ABAG has analyzed the NETS data to provide information on the spatial distribution of jobs at the jurisdiction and PDA level by employment sector, as well as changes in spatial distribution at these geographies from 1989-2009. More information on the NETS data is available at: <http://www.youreconomy.org/nets/?region=Walls>

Methodology

2010 Employment Distribution

Current employment is based on total jobs by sector as detailed in the CCSCE report. This is derived from California Employment Development Department wage and salary job estimates plus estimates for self employed workers developed from the 1990 and 2000 Census and American Community Survey annual estimates. The distribution to the counties is based upon 2010 sector totals by county from the Caltrans forecast. NETS data is used to distribute jobs by PDA and jurisdiction for each sector within each county.

2040 Employment Distribution

Total regional employment

The 2040 total job number was established from an analysis of economic and demographic trends, housing production, and policy direction to reduce reliance upon in-commuting to provide additional workforce for future Bay Area jobs. The 2040 job, population, and household totals provide a consistent set of demographic projections that accounts for: future age and ethnic demographic changes (DoF forecast), labor force participation rates (BLS), headship rates (HCD/DOF/ACS), group quarter and institutional shares of population (ACS), and normalized future unemployment and vacancy rates (5.1% and 4%, respectively).

Employment by economic sector and county

The composition of employment in 2040 by different industry sectors is based upon *Bay Area Job Growth to 2040: Projections and Analysis*, prepared by Stephen Levy at the Center for Continuing Study of the California Economy. This report uses a shift-share methodology (calculating regional growth as a share of national growth by industry sector) to project the future composition of Bay Area employment among the broad 2-digit NAICS industry sectors.

The distribution of 2040 employment among the nine counties for each industry sector is based upon county shares of regional employment in Caltrans' *California County-Level Economic Forecast: 2011-2040*. The agency's econometric model uses variables and assumptions taken from the UCLA Anderson Forecast and historic employment data from EDD.

The distribution of employment by jurisdiction and Priority Development Area was then calculated as a share of county growth for each industry sector.

Employment by jurisdiction and Priority Development Area

The distribution of employment at the jurisdiction and Priority Development Area geographies relies upon three basic approaches depending upon the type of job:

1. Population-serving jobs: For jobs that provide services to households, employment location is dependent upon where people live. As a result, growth of these jobs was distributed at the jurisdiction and PDA geography based upon the spatial distribution of household growth in the region. Residential construction jobs were also included in this category, as they will be located where new housing is built. Based upon an analysis of Bay Area employment at the 4-digit NAICS categories, this included 14% of new Construction jobs, 48% of new Retail jobs, 60% of Health and Education jobs, and 36% of Leisure and Hospitality sector jobs.
2. Knowledge-sector jobs: For jobs in Professional and Business Services, Information, and Finance, a Knowledge Strength Index was used to weight the distribution of jobs at the jurisdiction level. The index weights jurisdiction growth based upon the following factors: Average total employment 1990-2010 (10%); average knowledge-sector employment 1990-2010 (10%); Knowledge-sectors county location quotient 2010 (20%); share of county's jobs 2010 (10%); share of knowledge-sector job growth in county 1990-2000 (10%); employees per square mile 2010 (15%); average combined headway 2009 (20%); and share of intersections in jurisdiction with transit (5%) [employment data from NETS, transit data from MTC]. This index reflects the tendency of these jobs to prefer locations with already high concentrations of similar companies and a shared labor pool. The maximum deviations for any jurisdiction from existing shares in these sectors based upon the index weighting was +9% and -3% of county growth. Priority Development Areas received a 10% increase in share of jurisdiction growth in these sectors over existing shares.
3. All other jobs: For the remaining sectors, employment growth was distributed based upon the existing distribution in 2010 as derived from analysis of NETS establishment data. This data provides employment information by location of a business establishment. This is a high level of geographical resolution, which allows us to capture the employment by PDA more accurately than previous zip code data.

Following the distribution outlined above, staff reviewed job capacity information for Priority Development Areas provided by local jurisdictions (either directly as feedback on the Initial Vision or Alternative Scenarios, in PDA application materials, or in regional land use data collected by ABAG). Where there was additional job growth in a jurisdiction and capacity identified for that growth in Priority Development Areas, the PDA

employment numbers were increased to reflect the local plans. Additionally, shifts among PDAs within a jurisdiction were made to better reflect where growth was planned for by local jurisdictions

Feedback and Issues from Alternative Scenarios Employment Distribution

- Methodology distorted existing distribution, primarily affecting numbers in Solano County
- Many jurisdictions commented that regional growth numbers were high, mainly compared to growth experienced over past couple of decades
- In general, Marin jurisdictions said growth was too high within the county, Solano, Sonoma, and eastern Contra Costa jurisdictions that it was too low within their respective part of the region
- PDA geography not the most appropriate for discussing employment centers where knowledge-sector jobs concentrate
- PDA employment growth still did not reflect local plans

Changes to methodology used in the Alternative Scenarios

- Revised total job growth by sector reflecting economic and demographic data (consultant reports and demographic analysis)
- Revised distribution of growth by sector among counties to better differentiate growth rates among counties (Caltrans California County-Level Economic Forecast: 2011-2040)
- Maintain methodology for population-serving employment based upon distribution of household growth in the scenario (but include additional 'Health and Education' and 'Leisure and Hospitality' jobs based upon analysis of population-serving shares of these sectors, as well as the share of 'Construction' jobs that are for residential construction)
- Revise knowledge-sector employment growth distribution using an index weighting jurisdictions based upon concentrations of employment, specialization in knowledge-sector jobs, past growth, and transit service and access
- Maintain methodology for remaining sectors based upon existing share
- Priority Development Area distribution revised as a calculated share of jurisdictional growth
- For areas where local plans show additional capacity in PDAs and there was additional growth within the jurisdiction, the job allocation to the PDAs was increased. Additionally, shifts among PDAs within a jurisdiction were made to better reflect where growth was planned for by local jurisdictions.

7 Resources

American Farmland Trust, Greenbelt Alliance, and Sustainable Agriculture Education (SAGE), *Sustaining Our Agricultural Bounty: An Assessment of the Current State of Farming and Ranching in the San Francisco Bay Area*, January 2011. <http://www.farmland.org/documents/SustainingOurAgriculturalBountyMARCH2011.pdf>.

Bay Area Council Economic Institute, in partnership with UCLA Anderson Forecast, 5th Annual Regional Economic Forecast Conferences, December 2011. <http://www.bayareaeconomy.org/economic-forecasts/>.

Chapple, Karen and Jacob Wegmann, *Affordable Housing Needs and Strategies*, 2012. Will be made available on ABAG website shortly.

East Bay Economic Development Alliance, Building on Our Assets: Economic Development & Job Creation in the East Bay, October 2011. http://www.edab.org/research_facts_figures/building_on_our_assets_2011_Report.htm.

Joint Venture, in partnership with Silicon Valley Community Foundation, 2012 Index of Silicon Valley, 2012. http://www.jointventure.org/index.php?option=com_content&view=article&id=157&Itemid=567.

Levy, Stephen, *Bay Area Job Growth to 2040: Projections and Analysis*, Center for Continuing Study of the California Economy, February 2012. Will be made available on ABAG website shortly.

Mendez, Michael, "Latino New Urbanism: Building on Cultural Preferences," *Opolis: An International Journal of Suburban and Metropolitan Studies*, 1.1 (2005).

Metropolitan Transportation Commission, *Transit-Oriented Development Demand Analysis*, prepared by Center for Transit-Oriented Development and Strategic Economics, July 2005. <http://www.reconnectingamerica.org/assets/Uploads/4d.pdf>

Myers, Dowell, *Attrition of Homeownership in California in the 2000s: Now Seeking Generational Replacements*, USC Population Dynamics Research Group, July 2011. http://www.usc.edu/schools/price/research/popdynamics/pdf/2011_Myers-etal_California-Roller-Coaster.pdf.

Nelson, Arthur C., *The New California Dream: How Demographic and Economic Trends May Shape the Housing Market, A Land Use Scenario for 2020 and 2035*, Urban Land Institute, 2011.

Pitkin, John and Dowell Myers, *The 2010 Census Benchmark for California's Growing and Changing Population*, USC Population Dynamics Research Group, February 2011. http://www.usc.edu/schools/price/research/popdynamics/pdf/2011_Pitkin-Myers_CA-2010-New-Benchmark.pdf.

Retsinas, Nicolas P. and Eric S Belsky, ed. *Revisiting Rental Housing: Policies, Programs, and Priorities*, Brookings Institution Press, Washington, D.C., 2008.

Sonoma County Economic Development Board, Economic Development Strategy and Jobs Plan, November 2011. <http://edb.sonoma-county.org/>.

State of California, Department of Finance, *Population Projections for California and Its Counties 2000-2050, by Age, Gender and Race/Ethnicity*, Sacramento, California, July 2007. <http://www.dof.ca.gov/research/demographic/reports/projections/p-3/>.

State of California, Department of Housing and Community Development, *Raising the Roof – California Housing Development Projections and Constraints 1997-2020*, Sacramento, California, 2000.
<http://www.hcd.ca.gov/hpd/hrc/rtr/index.html>.

U.S. Census Bureau, 2010 Decennial Census.
<http://2010.census.gov/2010census/>.

U.S. Census Bureau, 2005-2009 American Community Survey 5-Year Estimates.
<http://www.census.gov/acs/www/>.

U.S. Department of Transportation, Summary of Travel Trends: 2009 National household Travel Survey, June 2011. <http://nhts.ornl.gov/2009/pub/stt.pdf>.