



# PLAN BAY AREA 2050

A VISION FOR THE FUTURE



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May 2021

**To the residents of the Bay Area:**

As the Bay Area continues to grapple with the lasting local and global effects of the COVID-19 pandemic, uncertainty about the future for our families and loved ones, and our community at large, feels greater than ever before. In this moment of reckoning, the Bay Area is at a crossroads. Does the region strategically move from isolation and fear into a future that is more affordable, diverse, connected, healthy and vibrant for every Bay Area resident, or do we continue down a path of inequality? Plan Bay Area 2050 is a blueprint for policies and investments that work toward the former – a vision for a brighter future defined by equity and resilience to uncertainty in the decades to come.

MTC and ABAG began to pivot away from an approach of trying to predict the future several years before COVID-19 turned our world upside down, instead recognizing that uncertainty is a given and that the Bay Area needs more resilient policy solutions. While the exact effects of a pandemic could not be foreseen, MTC and ABAG planners did consider possible futures with economic downturns, exponential growth in telecommuting, and sudden shocks to the system, including natural hazards, that are outside the region's control. Starting with the Horizon initiative in 2018, multiple years of resilience-focused analysis have informed this plan's vision and bolstered its strategies, providing insight as the Bay Area pivots from a period of unprecedented economic expansion to one of potentially more limited financial resources.

Alongside the pandemic, the early 2020s have ushered in a broad awakening to racially discriminatory policies in public and private spheres alike, opening necessary and often painful discussions in all corners of the nation. While the Bay Area has a long history of working together to create a better, more inclusive region, government agencies must step up like never before to meet the moment. To earn the trust of the people they serve today, institutions must address exclusionary policies of the past. Plan Bay Area 2050 represents an important step for regional government to address decades of discrimination by prioritizing and quantifying equity in more direct and ambitious ways than previous Bay Area long-range plans.

The strategies included in Plan Bay Area 2050 would help families stay in affordable homes; maintain the cultural fabrics of their neighborhoods; and benefit from investments in transit, open space and more in their communities if implemented by cities, towns and other partners. Job training programs and a universal basic income would provide a reliable economic safety net for those most in need, while long-term land use strategies improve the Bay Area's jobs-to-housing imbalance and promote inclusive neighborhoods. Environmental strategies protect increasingly vulnerable communities from potentially devastating effects of sea level rise, wildfires and earthquakes, while meeting statewide targets for reducing greenhouse gas emissions.

In addition to input from elected officials, staff from city and county governments, transportation agencies, advocacy organizations, the private sector, and other partners, this plan was shaped by the voices of over 15,000 everyday Bay Area residents. Shelter-in-place orders pushed MTC and ABAG to get creative in how we reached our constituents, enabling more diverse voices to weigh in at multiple decision points. MTC and ABAG took steps to hear from the broadest spectrum of the public possible by offering opportunities for engagement in four languages, connecting with young people who will inherit the Bay Area of 2050, and prioritizing the voices of historically underserved communities.

Implementing the bold strategies included in Plan Bay Area 2050 will require partnership and resolve. The Bay Area will need to think beyond our neighborhoods and act collaboratively as a region if we are going to address the challenges at hand. As residents of one of the most beautiful and diverse regions in the world, we must listen more intently, make a commitment to respect one another, and work harder together. Every Bay Area resident can contribute to a more equitable and resilient region, and MTC and ABAG truly look forward to sharing and working toward a vision for a Bay Area that is more affordable, connected, diverse, healthy and vibrant for all.

Sincerely,

**Therese W. McMillan**

Executive Director



Photo: Ben Botkin

The land that makes up the nine-county San Francisco Bay Area has been home to diverse groups of Indigenous peoples with unique cultures and deeply rooted relationships to the land for over 10,000 years.<sup>3</sup> The Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) acknowledge the Ohlone as the traditional caretakers of the land that makes up the Bay Area. We honor their connection to the land and the deep respect they hold for this region.

Ohlone is the most commonly used term for the predominant Indigenous group of the Bay Area, who are made up of linguistically similar but ethnically diverse Native American tribes. These tribes include the Chochenyo and the Karkin of the East Bay, the Ramaytush of San Francisco, the Yokuts of the South Bay and Central Valley, and the Muwekma tribe from throughout the region. Other Indigenous groups of the region are distinct from the Ohlone linguistic group, including the Coast Miwok and Southern Pomo of the Graton Rancheria community; the Kashaya, Patwin and Mishewal Wappo of the North Bay; and the Bay Miwok of the East Bay.<sup>4</sup> MTC and ABAG are committed to furthering meaningful partnerships with the tribes of this region.

Thank you for your stewardship.

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3 UC Berkeley Centers for Educational Justice & Community Engagement. (© 2021). Ohlone Land. <https://cejce.berkeley.edu/ohloneland>

4 Bay Area Equity Atlas. (© 2021). Indigenous Populations in the Bay Area. <https://bayareaequityatlas.org/about/indigenous-populations-in-the-bay-area>



# DRAFT PLAN BAY AREA 2050 EXECUTIVE SUMMARY

## What Is Plan Bay Area 2050?

Plan Bay Area 2050 is a 30-year plan that charts a course for a Bay Area that is affordable, connected, diverse, healthy and vibrant for all residents through 2050 and beyond. Thirty-five strategies comprise the heart of the plan to improve housing, the economy, transportation and the environment across the Bay Area's nine counties — Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano and Sonoma. This draft plan, developed by the Bay Area's two regional planning agencies, the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG), lays out a \$1.4 trillion vision for a more equitable and resilient future for Bay Area residents.

## About the Strategies

In the Plan Bay Area 2050 context, a strategy is a public policy or set of investments that can be implemented in the Bay Area at the city, county, regional or state level over the next 30 years. A strategy is not a near-term action, a mandate for a jurisdiction or agency, or a legislative proposal. All levels of government — as well as advocacy groups, the private sector and Bay Area residents — have a role to play in implementing the strategies. Specific actions and roles for MTC and ABAG have been identified through the collaborative development of the Draft Implementation Plan (detailed later in this summary), a process that will continue between the draft plan's release and the final plan's adoption.





<b>PLAN BAY AREA 2050</b> Guiding Principles	 <b>AFFORDABLE</b>	 <b>CONNECTED</b>	 <b>DIVERSE</b>	 <b>HEALTHY</b>	 <b>VIBRANT</b>
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## GUIDING PRINCIPLES WERE SHAPED BY EXTENSIVE PUBLIC ENGAGEMENT.

### Preparing for an Uncertain Future

Between now and 2050, best estimates suggest the Bay Area’s population will rise from nearly 8 million to over 10 million residents and that the number of jobs within the nine counties will climb from 4 million to more than 5 million. This growth will influence what the Bay Area looks like in 30 years, and many questions remain about where these new residents will live and work. In addition to growth, forces outside of the region’s control such as climate change, economic booms and busts, and changing technologies will contribute to future uncertainty. The COVID-19 pandemic recently provided an extreme example of how these unprecedented events can reshape everyday life.

In order to craft a long-range plan that is resilient to future unknowns, MTC and ABAG planners engaged in a multi-year scenario planning effort called Horizon prior to beginning work on Plan Bay Area 2050. Through Horizon, staff analyzed strategies and transportation projects in divergent potential future conditions, called Futures, evaluating each strategy’s probable success across three sets of future conditions. Each Future varied in terms of economic vibrancy, population growth rates, severity of natural hazards like sea level rise and earthquakes, and adoption rates for telecommuting or autonomous vehicles, among other forces. The 35 strategies included in Plan Bay Area 2050 proved effective across multiple Futures or respond to challenges that remained unaddressed after the conclusion of the Horizon effort.

### Advancing Equity

MTC and ABAG define equity for Plan Bay Area 2050 as “just inclusion in a Bay Area where everyone can participate, prosper and reach their full potential.” The agencies strive to advance equity through careful consideration of investments and policies that affect historically marginalized and systemically underserved groups, including people with low incomes and communities of color. Each strategy in Plan Bay Area 2050 has been crafted to advance equity, with particular attention paid to the needs of people living in Equity Priority Communities, which are geographic areas that have a concentration of both residents of color and residents with low incomes, or that have a concentration of residents with low incomes and other factors such as limited English proficiency, seniors or people with disabilities.

A majority of Plan Bay Area 2050’s investments are directed at Equity Priority Communities or other systemically underserved communities. Among its many equity-advancing components, the plan envisions billions of dollars for affordable housing production and preservation, a universal basic income to support residents’ essential needs, investments in means-based transit fare discounts, and subsidies to protect homes and businesses from natural hazards.



## Housing Strategies — Cost : \$468 Billion

Protect and Preserve Affordable Housing	H1. <b>Further strengthen renter protections beyond state law.</b> Building upon recent tenant protection laws, limit annual rent increases to the rate of inflation, while exempting units less than 10 years old.	\$2 BILLION
	H2. <b>Preserve existing affordable housing.</b> Acquire homes currently affordable to low- and middle-income residents for preservation as permanently deed-restricted affordable housing.	\$237 BILLION
Spur Housing Production for Residents of All Income Levels	H3. <b>Allow a greater mix of housing densities and types in Growth Geographies.</b> Allow a variety of housing types at a range of densities to be built in Priority Development Areas, select Transit-Rich Areas and select High-Resource Areas.	N/A
	H4. <b>Build adequate affordable housing to ensure homes for all.</b> Construct enough deed-restricted affordable homes to fill the existing gap in housing for the unhoused community and to meet the needs of low-income households.	\$219 BILLION
	H5. <b>Integrate affordable housing into all major housing projects.</b> Require a baseline of 10-20% of new market-rate housing developments of five units or more to be affordable to low-income households.	N/A
	H6. <b>Transform aging malls and office parks into neighborhoods.</b> Permit and promote the reuse of shopping malls and office parks with limited commercial viability as neighborhoods with housing for residents at all income levels.	N/A
Create Inclusive Communities	H7. <b>Provide targeted mortgage, rental and small business assistance to Equity Priority Communities.</b> Provide assistance to low-income communities and communities of color to address the legacy of exclusion and predatory lending, while helping to grow locally owned businesses.	\$10 BILLION
	H8. <b>Accelerate reuse of public and community-owned land for mixed-income housing and essential services.</b> Help public agencies, community land trusts and other non-profit landowners accelerate the development of mixed-income affordable housing.	N/A



## Economic Strategies — Cost : \$234 Billion

### Improve Economic Mobility

**EC1. Implement a statewide universal basic income.** Provide an average \$500 per month payment to all Bay Area households to improve family stability, promote economic mobility and increase consumer spending.

**\$205  
BILLION**

**EC2. Expand job training and incubator programs.** Fund assistance programs for establishing new businesses, as well as job training programs, primarily in historically disinvested communities.

**\$5  
BILLION**

**EC3. Invest in high-speed internet in underserved low-income communities.** Provide direct subsidies and construct public infrastructure to ensure all communities have affordable access to high-speed internet.

**\$10  
BILLION**

### Shift the Location of Jobs

**EC4. Allow greater commercial densities in Growth Geographies.** Allow greater densities for new commercial development in select Priority Development Areas and Transit-Rich Areas to encourage more jobs to locate near public transit.

**N/A**

**EC5. Provide incentives to employers to shift jobs to housing-rich areas well served by transit.** Provide subsidies to encourage employers to relocate offices to housing-rich areas near regional rail stations.

**\$10  
BILLION**

**EC6. Retain and invest in key industrial lands.** Implement local land use policies to protect key industrial lands, identified as Priority Production Areas, while funding key infrastructure improvements in these areas.

**\$4  
BILLION**



## Transportation Strategies — Cost : \$579 Billion

Maintain and Optimize the Existing System	<b>T1. Restore, operate and maintain the existing system.</b> Commit to operate and maintain the Bay Area’s roads and transit infrastructure while restoring transit service hours to 2019 levels.	<b>\$390 BILLION</b>
	<b>T2. Support community-led transportation enhancements in Equity Priority Communities.</b> Provide direct funding to historically marginalized communities for locally identified transportation needs.	<b>\$8 BILLION</b>
	<b>T3. Enable a seamless mobility experience.</b> Eliminate barriers to multi-operator transit trips by streamlining fare payment and trip planning while requiring schedule coordination at timed transfer hubs.	<b>\$3 BILLION</b>
	<b>T4. Reform regional transit fare policy.</b> Streamline fare payment and replace existing operator-specific discounted fare programs with an integrated fare structure across all transit operators.	<b>\$10 BILLION</b>
	<b>T5. Implement per-mile tolling on congested freeways with transit alternatives.</b> Apply a per-mile charge on auto travel on select congested freeway corridors where transit alternatives exist, with discounts for carpoolers, low-income residents, and off-peak travel; and reinvest excess revenues into transit alternatives in the corridor.	<b>\$1 BILLION</b>
	<b>T6. Improve interchanges and address highway bottlenecks.</b> Rebuild interchanges and widen key highway bottlenecks to achieve short- to medium-term congestion relief.	<b>\$11 BILLION</b>
	<b>T7. Advance other regional programs and local priorities.</b> Fund regional programs like motorist aid and 511 while supporting local transportation investments on arterials and local streets.	<b>\$18 BILLION</b>
Create Healthy and Safe Streets	<b>T8. Build a Complete Streets network.</b> Enhance streets to promote walking, biking and other micro-mobility through sidewalk improvements, car-free slow streets, and 10,000 miles of bike lanes or multi-use paths.	<b>\$13 BILLION</b>
	<b>T9. Advance regional Vision Zero policy through street design and reduced speeds.</b> Reduce speed limits to between 20 and 35 miles per hour on local streets and 55 miles per hour on freeways, relying on design elements on local streets and automated speed enforcement on freeways.	<b>\$4 BILLION</b>
Build a Next-Generation Transit Network	<b>T10. Enhance local transit frequency, capacity and reliability.</b> Improve the quality and availability of local bus and light rail service, with new bus rapid transit lines, South Bay light rail extensions, and frequency increases focused in lower-income communities.	<b>\$31 BILLION</b>
	<b>T11. Expand and modernize the regional rail network.</b> Better connect communities while increasing frequencies by advancing the Link21 new transbay rail crossing, BART to Silicon Valley Phase 2, Valley Link, Caltrain Downtown Rail Extension and Caltrain/High-Speed Rail grade separations, among other projects.	<b>\$81 BILLION</b>
	<b>T12. Build an integrated regional express lanes and express bus network.</b> Complete the buildout of the regional express lanes network to provide uncongested freeway lanes for new and improved express bus services, carpools and toll-paying solo drivers.	<b>\$9 BILLION</b>



## Environmental Strategies — Cost : \$102 Billion

Reduce Risks from Hazards	EN1. <b>Adapt to sea level rise.</b> Protect shoreline communities affected by sea level rise, prioritizing low-cost, high-benefit solutions and providing additional support to vulnerable populations.	<b>\$19 BILLION</b>
	EN2. <b>Provide means-based financial support to retrofit existing residential buildings.</b> Adopt building ordinances and incentivize retrofits to existing buildings to meet higher seismic, wildfire, water and energy standards, providing means-based subsidies to offset associated costs.	<b>\$15 BILLION</b>
	EN3. <b>Fund energy upgrades to enable carbon neutrality in all existing commercial and public buildings.</b> Support electrification and resilient power system upgrades in all public and commercial buildings.	<b>\$18 BILLION</b>
Expand Access to Parks and Open Space	EN4. <b>Maintain urban growth boundaries.</b> Using urban growth boundaries and other existing environmental protections, focus new development within the existing urban footprint or areas otherwise suitable for growth, as established by local jurisdictions.	<b>N/A</b>
	EN5. <b>Protect and manage high-value conservation lands.</b> Provide strategic matching funds to help conserve and maintain high-priority natural and agricultural lands, including but not limited to Priority Conservation Areas and wildland-urban interface areas.	<b>\$15 BILLION</b>
	EN6. <b>Modernize and expand parks, trails and recreation facilities.</b> Invest in quality parks, trails and open spaces that provide inclusive recreation opportunities for people from all backgrounds, abilities and ages to enjoy.	<b>\$30 BILLION</b>
Reduce Climate Emissions	EN7. <b>Expand commute trip reduction programs at major employers.</b> Set a sustainable commute target for major employers as part of an expanded Bay Area Commuter Benefits Program, with employers responsible for funding incentives and disincentives to shift auto commuters to any combination of telecommuting, transit, walking and/or bicycling.	<b>N/A</b>
	EN8. <b>Expand clean vehicle initiatives.</b> Expand investments in clean vehicles, including more fuel-efficient vehicles and electric vehicle subsidies and chargers.	<b>\$4 BILLION</b>
	EN9. <b>Expand transportation demand management initiatives.</b> Expand investments in programs like vanpools, bikeshare, carshare and parking fees to discourage solo driving.	<b>\$1 BILLION</b>



## Outcomes

Plan Bay Area 2050 is forecasted to make significant progress in tackling the greatest challenges facing the region, from housing affordability to the intensifying impacts of global climate change. Using simulation models to forecast future economic, land use and travel patterns over the next three decades, Plan Bay Area 2050 explores how the plan’s strategies advance the region toward the adopted vision of a Bay Area that is affordable, connected, diverse, healthy and vibrant for all residents, with a strong focus on measuring equity outcomes.

If Plan Bay Area 2050’s strategies were implemented, housing and transportation costs, the two largest expenditures for most Bay Area families today, would decrease as a share of household income by 2050, and families with low incomes would see larger reductions in these costs than the region at large. This is the first regional plan for the Bay Area that makes meaningful progress on this critical metric of affordability. Plan Bay Area 2050 would also prepare the region’s workforce for future jobs while simultaneously planning for enough new housing to ensure that strong job growth is not met with an increase in the number of long-distance commuters traveling to the Bay Area from outside of the region.

Under Plan Bay Area 2050’s strategies, just under half of all Bay Area households would live within one half-mile of frequent transit by 2050, with this share increasing to over 70% for households with low incomes. Transportation and environmental strategies that support active and shared modes, combined with a transit-supportive land use pattern, are forecasted to lower the share of Bay Area residents that drive to work alone from over 50% in 2015 to 36% in 2050. Greenhouse gas emissions from transportation would decrease significantly as a result of these transportation and land use changes, and the Bay Area would meet the state mandate of a 19% reduction in per-capita emissions by 2035 — but only if all strategies are implemented.



## Draft Implementation Plan

How do the Plan Bay Area 2050 strategies get implemented? No strategy can be carried out by MTC and ABAG alone, so partners, policymakers and the public will be essential to realizing the plan’s vision. The Plan Bay Area 2050 Draft Implementation Plan identifies concrete actions that MTC and ABAG can take, in partnership with other organizations, in the next one to five years to advance each of the 35 adopted strategies. The Draft Implementation Plan will be shaped by ongoing engagement with these partners and will include a complete set of implementation recommendations in the final Plan Bay Area 2050 document that will be released later this year.



## Next Steps



### Key Milestones



## The New Normal

As the Bay Area emerges from the COVID-19 pandemic, there are many opportunities to enact new policies and practices to better reflect the needs and desires of all who live in the region. Together, residents and leaders can work toward inclusivity and prosperity for those who live and work in the Bay Area by taking bold actions in the face of a rapidly changing world. The 35 strategies described in the draft plan outline a vision for confronting unpredictable societal forces in a way that is inclusive and pragmatic — a plan for a Bay Area that is more affordable, connected, diverse, healthy and vibrant for all residents.



# 1 | Introduction



Photos (Top, Bottom Left): Karl Nielsen

Photo: Craig Sherod



## THE BAY AREA: REGION AT A CROSSROADS



Photo: Ben Botkin

The nine counties of the San Francisco Bay Area are world-renowned for their natural beauty, innovative spirit and diverse culture. Together, Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano and Sonoma counties form one of the most vibrant regions in the United States, with nearly 8 million people of many different races, nationalities and cultures calling the Bay Area home. People of color have comprised the majority of the population since around 2000 — decades before the nation as a whole is expected to experience the same demographic shift.<sup>3,4</sup>

Cities and towns surrounding the San Francisco Bay have symbolized progress and economic opportunity in the Golden State for centuries. From technological innovation and environmental stewardship to thriving art scenes and social justice movements, the region is recognized as a world-class problem-solver and trend-setter. Bay Area residents have consistently stepped up to face challenges and advocate for change, including leading nationally on LGBTQ rights and setting the stage for the Americans with Disabilities Act in recent decades.

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- 3 Bay Area Census. (2000 US Census data). <http://www.bayareacensus.ca.gov/bayarea.htm> (See “Not Hispanic or Latino – White”)
- 4 Colby, S. L. and Ortman, J. M. (2015, March). Projections of the Size and Composition of the U.S. Population: 2014 to 2060. US Census Bureau. <https://www.census.gov/content/dam/Census/library/publications/2015/demo/p25-1143.pdf>

By 2050, best estimates suggest the Bay Area's population will grow to just over 10 million residents, and that the number of jobs within the nine counties will climb to more than 5 million. Where in the region will these 2 million new people live and work? Will they be able to live conveniently near their jobs or work from home, or will they commute for hours each day? Will the children, grandchildren and great-grandchildren of today's residents be able to raise their own children in the region, or will they be priced out? Could entire neighborhoods be displaced by the effects of climate change?

The answers to these questions will depend on how the region addresses inequities as it grows. Well-crafted policies can help families stay in affordable homes, surrounded by inclusive communities, for generations. The nine counties and 101 cities and towns of the Bay Area can lead residents down the path of economic security to a thriving middle class while prioritizing communities of color and families with lower incomes that have been shut out of past opportunities. Strategic investments can protect increasingly vulnerable communities from the devastating effects of sea level rise, wildfires and earthquakes, while improving air quality and open spaces for everyone.

The decisions the Bay Area makes over the next 30 years will greatly shape its future residents' lives, even as many factors remain outside the region's control. Outside forces like climate change, new technologies and worldwide political volatility threaten to disrupt everyday life. Other new challenges will unquestionably emerge, requiring new solutions and new collaborations. The magnitude of forces the Bay Area will face may seem daunting, but as residents of one of the most innovative and accomplished regions in the world, important decisions about the future are ours to make.

When planning for the future, decision-makers must craft both a strong, principled vision that centers equity and the practical, achievable steps that can make this vision a reality. Plan Bay Area 2050 explores how the region may grow over the next 30 years and offers cross-disciplinary strategies for regional government and its many partners to work together. Under the vision and strategies of Plan Bay Area 2050, the region can work toward resilient, equitable solutions that will improve the lives of all current and future Bay Area residents.

## PLAN BAY AREA 2050

### A Resilient and Equitable Vision for the Bay Area's Future

The COVID-19 pandemic has starkly illustrated just how powerful unforeseeable forces can be. The pandemic upended daily life overnight, costing thousands of Bay Area lives and eliminating 150,000 jobs<sup>5</sup> in 2020. Other challenges are poised to be even more disruptive to Bay Area life over the next 30 years. Perhaps the most serious existential consideration of all is climate change, a growing crisis that threatens to reshape the region through worsening cycles of flooding, drought and wildfire. While not tied to climate change, a major earthquake is also likely to hit the Bay Area in the coming decades.

Alongside the pandemic and the growing sense of urgency to address climate change, the early 2020s have ushered in a broad awakening to racial discrimination. In the Bay Area and beyond, previously unheard voices are demanding new ways to solve problems. Decision-makers are explicitly acknowledging and addressing legacies of exclusion that are deeply, often invisibly, embedded in business-as-usual approaches. Some difficult equity conversations call for immediate action to address wrongdoings, while many others require long-term planning to solve longstanding problems.

While the Bay Area has a long history of working together to create a better, more inclusive region, opportunities abound to examine the past and continue the work to advance a more equitable and inclusive society. Some past policies and practices are obvious examples of inequity; exclusionary housing policies like redlining, for example, and practices like uprooting thriving Black neighborhoods to make way for transportation infrastructure are difficult parts of the Bay Area's past.

The deeply entrenched effects of these past policies and practices continue to affect lives today, and they must not be minimized. However, something as seemingly straightforward as planning a park in any neighborhood today can also bring up equity concerns that are less obvious. Which communities have access to high-quality parks and recreation spaces in the Bay Area today, and why? Can the region work together to balance the needs of all counties more evenly, so that all residents in every county can enjoy the region's beauty in open spaces?



Photo: Noah Berger



Photo: Brett Sayles, pexels.com

5 Li, R. and Blom, E. (2020, September 2). Bay Area Layoff Tracker: Over 150,000 jobs lost. *San Francisco Chronicle*. <https://projects.sfchronicle.com/2020/layoff-tracker/>

MTC and ABAG explore these questions and many others in **Plan Bay Area 2050**, the region’s long-range strategic plan focused on the interrelated elements of housing, the economy, transportation and the environment. The heart of the plan is 35 strategies, described in the chapters that follow. Each strategy has been crafted to weather uncertain future conditions and advance equity. This plan expands in scope beyond past Bay Area long-range plans by examining the themes of economic development and environmental resilience for the first time. The plan also meets all state and federal requirements for a Regional Transportation Plan and Sustainable Communities Strategy.<sup>6</sup>



### PLAN BAY AREA 2050 STRATEGIES

A Plan Bay Area 2050 “strategy” is a public policy or set of investments that can be implemented in the Bay Area at the city, county, regional or state level over the next 30 years. A strategy is not a near-term action, a mandate for a jurisdiction or agency, or a legislative proposal.

### ABOUT MTC AND ABAG

Plan Bay Area 2050 is a joint project of the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG), two regional government agencies that collaborate with the cities and counties of the Bay Area to plan for a more equitable, sustainable and prosperous region.



MTC is the transportation planning, financing and coordinating agency for the Bay Area, in addition to the region’s federally designated metropolitan planning organization and state-designated regional transportation planning agency. ABAG serves as the Council of Governments for the region, addressing issues of housing, resilience and economic development.

MTC and ABAG combined staffs in 2017 to more effectively coordinate regional planning across areas of expertise, including developing Plan Bay Area 2050, though the agencies retain separate governing boards made up of elected officials and appointees from around the region.

<sup>6</sup> For federal requirements, see the Federal Transit Administration website at: <https://www.transit.dot.gov/regulations-and-guidance/transportation-planning/metropolitan-planning-organization-mpo>. For California requirements, see Government Code Section 65080.



Photo: Courtesy MidPen Housing

# UNDERSTANDING EQUITY

## APPROACHES AND TERMINOLOGY

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### Equity Platform

MTC and ABAG’s working definition of equity is “just inclusion in a Bay Area where everyone can participate, prosper and reach their full potential.” The agencies strive to advance equity through careful consideration of investments and policies that affect historically marginalized and systemically underserved groups, including families with low incomes and communities of color. MTC and ABAG’s Equity Platform, launched in 2019, is built around the common vision of furthering long-term equity actions that meaningfully reverse disparities in access and dismantle systemic exclusion.<sup>7</sup>

More specifically, both agencies acknowledge and seek to repair the historic role government and the planning profession have played in systemically denying opportunities to Black people and other communities of color through redlining, urban highways that uprooted neighborhoods, exclusionary zoning, redevelopment, segregation and discrimination. Plan Bay Area 2050 further articulates a regional vision for equity in each of the four element chapters that follow.

### Terminology

Language is powerful, and the words we use to talk about equity matter. We specifically recognize the needs of **Indigenous, Black, Hispanic and Latino people**, and we also use the term **communities of color**, which effectively means non-white people. These communities, of course, are not monoliths, and many within them prefer different terms to describe themselves. Language and norms are shifting rapidly in this area,<sup>8</sup> and we acknowledge that we will not capture everyone’s experiences.

We recognize that Indigenous, Black, Hispanic and Latino people, as well as other communities of color, are **historically marginalized** and **systemically underserved**. Other groups have also faced similar issues, including women, people with disabilities, people with low incomes and seniors, among others.

These terms indicate that society — both public and private institutions — has failed to adequately serve these groups over centuries, and that governments and the private sector must work harder to ensure that they thrive. Importantly, these are not terms that these communities use to describe themselves; rather, they indicate that the systems responsible for the damage must be responsible for the repairs.

### Equity Priority Communities

Throughout this document, the phrase **Equity Priority Community** refers to a geographic area (census tract) that has a concentration of both residents of color and residents with low incomes, or that has a concentration of residents with low incomes and any three or more of the following six factors: people with limited English proficiency, zero-vehicle households, seniors aged 75 years and over, people with one or more disability, single-parent families, and renters spending more than 50% of their household income on housing. This framework has been used by MTC, ABAG and other Bay Area public agencies since 2001 to focus and assess equity efforts across a number of planning, analysis and funding programs in the region.

Prior to 2021, MTC and ABAG used the term “Communities of Concern” for these areas. Following discussions within agency committees and with residents of these communities, the Commission and Executive Board in May 2021 adopted the term “Equity Priority Communities” to describe these places going forward. This small but meaningful change communicates that MTC and ABAG intend to prioritize these historically underserved and still under-represented communities to advance equitable outcomes.

Refer to the Draft Plan Bay Area 2050 Equity Analysis Report for more information on how the strategies of Plan Bay Area 2050 affect residents of these communities.

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7 Read more about the Equity Platform on the MTC website at: <https://mtc.ca.gov/about-mtc/what-mtc/mtc-abag-equity-platform>.

8 AP Stylebook (2021). Race-related coverage. <https://www.apstylebook.com/race-related-coverage>

## Guiding Principles and Vision for Plan Bay Area 2050

Extensive public engagement led MTC and ABAG to five guiding principles that informed every step of Plan Bay Area 2050’s development: *affordable, connected, diverse, healthy* and *vibrant*. These principles were distilled from the thousands of comments received at online and in-person events, as people consistently cited issues like affordable housing, racial diversity, quality transportation options and climate change as top concerns for their future. MTC and the ABAG Executive Board formally adopted the principles in the following vision statement for Plan Bay Area 2050: “To ensure by the year 2050 that the Bay Area is affordable, connected, diverse, healthy and vibrant for all.”

A guiding vision is a crucial complement to both policies and concrete actions in planning work. A common vision shows leadership and consensus in an organization, setting the tone for the actions that follow. After the Plan Bay Area 2050 vision was adopted by the Commission and Executive Board, the MTC and ABAG planning team used it to refine potential strategies for inclusion in the plan, resulting in the 35 strategies of this draft plan. The five guiding principles that make up the vision also provide a structure to evaluate the plan’s performance, as detailed in the outcomes chapter. While the strategies are described by topic in each of the chapters that follow, the outcomes chapter evaluates the overall combined impact of the strategies, using the five guiding principles as a framework to gauge how well they perform.

CROSS-CUTTING THEMES	RESILIENCE AND EQUITY
Vision	To ensure by the year 2050 that the Bay Area is affordable, connected, diverse, healthy and vibrant for all.
GUIDING PRINCIPLE	DESCRIPTION
 AFFORDABLE	All Bay Area residents and workers have sufficient access to housing options they can afford – households are economically secure.
 CONNECTED	An expanded, well-functioning, safe and multimodal transportation system connects the Bay Area – fast, frequent and efficient intercity trips are complemented by a suite of local transportation options, connecting communities and creating a cohesive region.
 DIVERSE	The Bay Area is an inclusive region where people from all backgrounds, abilities, and ages can remain in places with access to the region’s assets and resources.
 HEALTHY	The region’s natural resources, open space, clean water and clean air are conserved – the region actively reduces its environmental footprint and protects residents from environmental impacts.
 VIBRANT	The Bay Area region is an innovation leader, creating job opportunities for all and ample fiscal resources for communities.

SOURCE: Adopted by MTC and ABAG in September 2019



Photo: Karl Nielsen

## HORIZON EXPANDING THE SCOPE OF RESILIENCE

The Horizon initiative, a scenario-planning effort conducted before the start of work on Plan Bay Area 2050, was the first comprehensive Bay Area planning effort to actively consider future uncertainties, including new technologies like autonomous vehicles, rising sea levels, earthquakes, economic booms and busts, and political volatility. Findings from the Horizon process shaped the strategies included in Plan Bay Area 2050.

In 2018 and 2019, MTC and ABAG staff developed three streams of work as part of Horizon, all of which were guided by robust public engagement:

1. **Perspective papers:** A series of white papers explored strategies for issues previously outside the scope of Bay Area long-range planning. The five paper topics were autonomous vehicles, transportation demand management, regional growth strategies, the future of jobs and additional San Francisco Bay crossings.
2. **Futures planning:** Three divergent “what-if” scenarios called “Futures” were central to Horizon. Futures planning identified how a range of forces will potentially shape the Bay Area of 2050 and assessed the performance of strategies that emerged from the perspective papers using simulation models. This work transcended previous planning efforts by including a greater variety of political, technological, economic and environmental challenges and informed the strategies included in Plan Bay Area 2050.
3. **Project performance assessment:** Nearly 100 transportation projects were evaluated for cost effectiveness, equity impacts and alignment with the guiding principles of Plan Bay Area 2050 in each of the three divergent Futures. Findings from this analysis informed the formation of strategies for investing in the region’s transit and road systems, resulting in packages of investments that were likely to perform well across a variety of uncertain futures.



## BRIDGING PAST AND PRESENT

### Legacies of Exclusion and Steps Toward Progress

The Bay Area has long been one of the most diverse and prosperous regions in the nation, but this prosperity has never been shared equally. Understanding the impacts that past policy decisions have had on people of color, people with low incomes and other historically marginalized groups is a crucial starting point to understanding inequity in the region. Along with understanding the past, however, it is also critical to look toward the future. Recent government actions that affect the Bay Area's housing, economy, transportation and environment have begun to undo a legacy of exclusion and make steps toward equity.

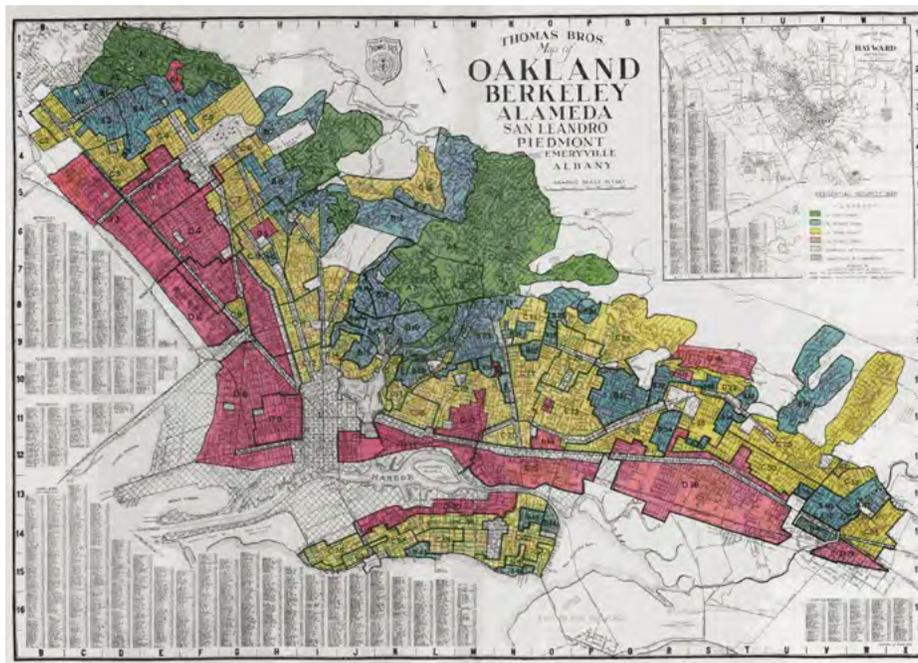


Photo: John A. Benson

## Inclusive Communities to Call Home

Rising home prices have led to financial stability and a high quality of life for many Bay Area homeowners over the past few decades. For many others who live or want to live in the Bay Area, however, high rents and home prices are the primary obstacle to calling the region home. Housing growth in cities with growing high-wage workforces — notably those in Silicon Valley — has not kept pace with job growth, resulting in spillover demand for homes and higher housing costs throughout the region. Every day, Bay Area workers of all income levels struggle to find housing close to their workplaces, though this trend is particularly challenging for workers with low incomes.

Historical practices like redlining and urban renewal throughout the 20th century resulted in disinvestment within low-income communities and communities of color, and the effects of these practices are still felt. A home in a Black-majority part of the Bay Area today, for example, is worth about \$164,000 less than a home with equivalent amenities in a neighborhood with very few Black people.<sup>9</sup>



Redlining map of northern Alameda County, produced by the federal Homeowners' Loan Corporation (HOLC).

**SOURCE:** [https://localwiki.org/oakland/Redlining/\\_files/1937-oaklandberkeleyHOLCmap-redlining.jpg/\\_info/](https://localwiki.org/oakland/Redlining/_files/1937-oaklandberkeleyHOLCmap-redlining.jpg/_info/)

While some exclusionary housing policies common across the United States originated in the Bay Area, the region's cities and towns, as well as state and federal governments, have recently begun to explicitly acknowledge and address these legacies of exclusion. Berkeley, for example, was the first city in the U.S. to zone neighborhoods exclusively for single-family houses in 1916, but the city council in early 2021 approved a resolution that will work toward ending exclusionary zoning, joining a wave of other cities nationwide doing the same.<sup>10</sup> At the state level, housing bills that explore statewide renter protections, streamline the approval process for affordable housing and make it easier for homeowners to build in-law units, among many other proposed tactics, have proliferated in recent years to tackle the housing crisis.

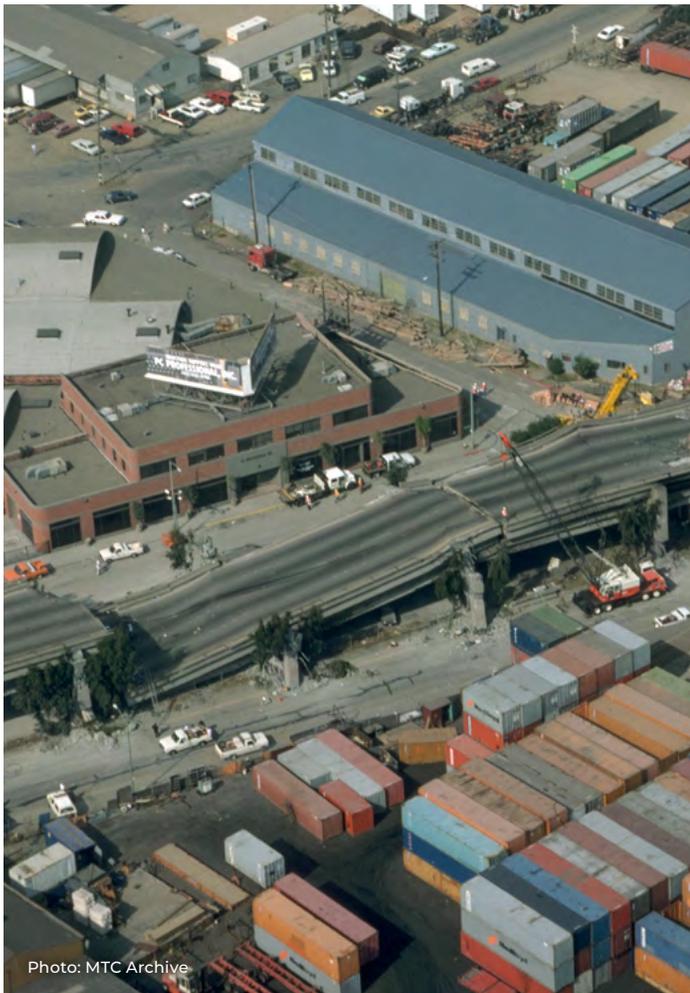
9 Levin, M. (2020, June 19). Black Californians' Housing Crisis, By The Numbers. CalMatters/CapRadio. <https://www.caprado.org/articles/2020/06/19/black-californians-housing-crisis-by-the-numbers/>

10 Metcalfe, J. (2021, February 17). Berkeley may get rid of single-family zoning as a way to correct the arc of its ugly housing history. Berkeleyside. <https://www.berkeleyside.com/2021/02/17/berkeley-may-get-rid-of-single-family-zoning-as-a-way-to-correct-the-arc-of-its-ugly-housing-history>

## Sharing Prosperity

The Bay Area has reinvented its economy several times in the last half-century and is widely recognized as the global center for technological innovation. Despite a strong economy, however, the Bay Area also has the greatest income inequality of any region in California as of 2021.<sup>11</sup> Low- and middle-income workers have seen fewer gains than those in the top bracket in recent decades, and the gulf between high and low wages has widened with each economic bust. Even during booms, as incomes have risen, so has the measure of inequality for each of the nine Bay Area counties since 1980.<sup>12</sup> Most of the region's (and the nation's) overall income growth is received by households at the very top income levels. Bay Area households in the 90th percentile of incomes earned \$384,000 a year in 2018, compared to just \$32,000 for those in the bottom 10th percentile.<sup>13</sup>

One idea that local governments have begun testing to address economic inequity is a universal basic income, a strategy explored further in the economy chapter. Pioneered by the neighboring City of Stockton, universal basic income pilots are cropping up worldwide, including in San Francisco, Oakland, Marin County and South San Francisco, as well as in Santa Clara County, which is exploring the first universal basic income program in the U.S. to target foster youth.<sup>14</sup>



## Connecting Divided Communities

In the transportation realm, decisions that guided where housing, jobs and transportation infrastructure were built throughout the 20th century have deeply affected the Bay Area's most historically marginalized and systemically underserved communities. Federally funded highway projects in the 1950s and 1960s often routed construction through low-income communities of color in the region's urban core, displacing families and breaking up thriving downtowns.<sup>15</sup> The primary beneficiaries of these decisions lived miles away, in residential communities that relied on freeways for a convenient drive to downtown job centers.

In an unexpected turn, the 1989 Loma Prieta earthquake prompted Bay Area leaders to explore the possibility of knitting these communities back together. The earthquake damaged several freeway segments in the Bay Area, including an elevated structure running parallel to the Embarcadero in San Francisco and the Cypress Structure in Oakland. Leaders chose to remove the freeways rather than repair them, making way for multimodal corridors where drivers, transit vehicles, cyclists and pedestrians share the road. This Bay Area decision to elevate the needs of transit riders, bicyclists and pedestrians, alongside drivers, serves as a model for several Plan Bay Area 2050 transportation strategies, including more frequent, reliable transit service and infrastructure for a regional network of safe bike lanes and trails.

11 Bohn, S. and Thorman, T. (2020, January). Income Inequality in California. Public Policy Institute of California. <https://www.ppic.org/publication/income-inequality-in-california/>

12 Ibid.

13 Ibid.

14 Hellerstein, E. (2020, January 13). Why one Bay Area county is exploring basic income for former foster youth. Mercury News. <https://www.mercury-news.com/2020/01/13/why-one-bay-area-county-is-exploring-basic-income-for-former-foster-youth/>

15 DiMento, J.F.C. and Ellis, C. (2012). Changing Lanes: Visions and Histories of Urban Freeways. MIT Press. <http://doi.org/10.1080/02665433.2013.860821>

## Health and Safety for All Residents

Inequitable transportation, housing and economic policies have also left communities of color and low-income communities more exposed to environmental health hazards.<sup>16</sup> While overall pollution levels have improved greatly over the past decades, disparate burdens on systemically underserved people remain. Many contaminated land sites are still in or adjacent to communities of color in the Bay Area today, and homes in Equity Priority Communities may be over 50% more likely to experience flooding from sea level rise. There are even disparities in which residents and communities see reinvestment following environmental disasters: residents of color and neighborhoods with low incomes consistently see smaller amounts of reinvestment in their communities, which widens the overall gap in wealth inequality.<sup>17</sup>

Alongside these inequities, however, the Bay Area, and California as a whole, are recognized as national leaders in environmental advocacy, and lawmakers and governments have recently made strides in working toward better health and more resilient communities for all. However, the Bay Area must ensure that its legacy of environmental stewardship is not used as a tool of exclusion that prevents people of color from calling the region home. Community-engaged planning work is already underway as required by Assembly Bill 617 (C. Garcia, Statutes of 2017), a mandate to improve community health and promote equity by reducing exposure to air pollutants in neighborhoods most affected by air pollution. Communities in places like West Oakland and Richmond, for example, now have a stronger voice in making the decisions that will affect environmental quality in their neighborhoods.

## Shaping What Comes Next

While history reveals that past planning actions across federal, state and local levels have sown the seeds of the greatest challenges facing our region today — fights to protect and expand civil rights, environmental justice, housing affordability, disparities in wages, and so much more — there is hope for a better future. The spirit of innovation and the diversity of people and ideas inherent to the Bay Area’s identity will be essential as residents face the coming years together. There is an opportunity for the Bay Area to lead nationally and globally as a region where equity is championed as a principle, and where planning work is humble enough to know that unforeseen circumstances will arise.

Bay Area voters have also shown time and again that they will step up to support ideas that equitably improve quality of life for all. Faced with declining financial support from federal and state governments, Bay Area cities and counties over the past decades have enacted various local transportation sales taxes to help themselves, and voters have approved three regional measures to generate billions of dollars for much-needed transportation projects. Voter-approved environmental actions in the 20th century have protected the Bay Area from unchecked sprawl, degrading air quality and a shrinking bay. The Bay Area public has shown that it is eager to solve big problems together, and effective long-range planning can create opportunities for them to do so.



Photo: Karl Nielsen

16 San Francisco Bay Conservation and Development Conservation. (2019, June 7). Toward Equitable Shorelines: Environmental Justice and Social Equity at the San Francisco Bay. Staff Report.

17 Howell, J. et al. (2018). As Disaster Costs Rise, So Does Inequality. *Socius: Sociological Research for a Dynamic World*, 4. <https://doi.org/10.1177/2378023118816795>

## Navigating an Uncertain Future

Undeniably, the Bay Area will face unexpected and life-altering events over the next three decades and beyond. The COVID-19 public health crisis is a prime example of the unpredictability of things to come, and it will not be the last unforeseeable event with wide-reaching repercussions. Technological, environmental and economic changes are accelerating at an ever-quicken pace, requiring institutions to step up in response. Long-range planning in particular can guide responses to uncertainty through targeted policies and investments. Thoughtful long-range strategies can work to stabilize a high quality of life for Bay Area residents, no matter what may come.

Already, evidence of change is all around us. In less than a decade, ride-hailing companies have revolutionized how people get around and prompted transit operators to consider whether these on-demand private rides are a competitor or a complement to transit, or something in between. New revolutions in the transportation field, like self-driving cars or the growing acceptance of remote work, could remake the Bay Area's transportation system once again, or they may fade away as fads never fully realized. Forward-looking transportation strategies can help to keep Bay Area residents moving no matter what trends occur, while also reducing greenhouse gas emissions.



Economic uncertainties are already on the minds of most Bay Area residents, as the economic fallout of the COVID-19 pandemic may take years to fully unfold. Economic booms and busts are bound to continue, regardless of any action the Bay Area takes, prompting new explorations of ways we might share the prosperity in good times and cushion against hardship when times are tough. Economic strategies that promote upward mobility and improve access to jobs hold the promise of a society that is as equitable as it is prosperous, even through ups and downs.

The unknown effects of climate change cannot be overstated. By 2050, sea levels around the San Francisco Bay may rise multiple feet, and already-hazardous wildfires are expected to intensify. In addition, earthquakes represent a perennial threat in California, and there is a significant chance of a major earthquake in the Bay Area within the next 30 years.<sup>18</sup> While no one can predict when an individual earthquake or flood may strike, strategies to retrofit homes and protect shoreline communities can ensure the safety of all Bay Area residents through these hazardous events.

The ever-increasing price of housing in the Bay Area today also presents a threat to stability. The housing market may continue to rise unchecked, pricing out all but the wealthiest residents in certain areas. Future tastes in housing may change, becoming more urban, suburban or rural. More people may work from home in the future following the pandemic, giving rise to new needs for living and working spaces. Strategies for the future of housing can reduce housing costs and increase access to opportunity for all Bay Area families, while guiding all neighborhoods to be more inclusive of residents with all income levels.

Government has recently shown that it can respond to an unexpected crisis. Local, state and federal agencies responded in unprecedented and meaningful ways to the many housing crises brought on by COVID-19, including eviction moratoria, rental and mortgage support, and services for currently unhoused people. Strategies for the future can build off these successes and take them even further, with tailored solutions for the Bay Area and its unique needs.

18 USGS. (2016, August). Earthquake Outlook for the San Francisco Bay Region 2014–2043. <https://pubs.usgs.gov/fs/2016/3020/fs20163020.pdf>

## Planning for Success Together

The adaptability, strength and hope of the Bay Area and its people have shone through time after time through periods of crisis, creatively leading the way to positive change. What may seem like a moment of crisis can often be a catalyst for necessary growth. In retrospect, moments of historic upheaval have ignited passionate action and long-term progress. As we emerge from this moment of crisis, there are many opportunities to reform policies and practices to better reflect the needs and desires of all Bay Area residents.

MTC and ABAG envision a more responsive, responsible and representative course for the region's future that reflects the shifting priorities of Bay Area residents. Together, the region can find a path toward inclusivity and prosperity for those who live, work and too often struggle to remain here, through bold actions in the face of a rapidly changing world. The 35 strategies described in the following chapters outline a vision for confronting huge societal forces in a way that is both equitable and pragmatic, resilient and inclusive — a plan for a region that is more affordable, connected, diverse, healthy and vibrant for all Bay Area residents.



## NEW APPROACHES TO DEEPEN AND DIVERSIFY PUBLIC ENGAGEMENT

Developing a trillion-dollar plan for the Bay Area is no simple task. It is a multiyear process involving multiple regional agencies, nine counties, 101 towns and cities, elected officials, transit operators, planners, community-based organizations, business organizations, non-profits, and the general public. Despite this complexity, ongoing public engagement informed Plan Bay Area 2050's development at every phase.

Multiple rounds of public input transformed initial ideas into the 35 final strategies that now make up the Draft Plan Bay Area 2050. For example, strong public support for electric vehicles directed staff to expand the scope of the strategy for clean vehicle initiatives, resulting in exponentially increased funding for electric vehicle and charger subsidies. The strategy also includes even steeper discounts for low-income residents to ensure that cost is not a barrier to cleaner driving options, reflecting another desire expressed by the public.

### New Strategies for Representative Engagement

MTC and ABAG took strategic action to engage with people who were historically underrepresented, including youth, those with limited English proficiency and residents of Equity Priority Communities. This engagement effort required developing new avenues of public engagement specific to the plan, alongside discussions of Plan Bay Area 2050 at regular standing committees and in meetings with community-based organizations.

One new approach for Plan Bay Area 2050 was the “pop-up” engagement campaign. In 2019, prior to the onset of COVID-19, staff held in-person “pop-up” engagement sessions at farmers markets, libraries, marathons, parks, malls and other community gathering spaces, intercepting residents for impromptu engagement. By popping up at dozens of sites throughout the region, MTC and ABAG staff were able to interact with many residents who had never contributed to the long-range plan before, diversifying the array of voices contributing to the plan. A majority of in-person outreach events were held in Equity Priority Communities, and community-based organizations were compensated to convene focus groups for more in-depth discussions.



Photo: Noah Berger

Online participation opportunities were another area of intensified focus, allowing members of the public to engage on their own time. An online game, Mayor of Bayville, as well as several rounds of online surveys, were used to understand priorities and gauge public support for strategies. Opportunities to engage in Spanish and Chinese were also available for all of these activities.

### CONNECTIONS AT A SAFE DISTANCE: Engagement During the COVID-19 Pandemic



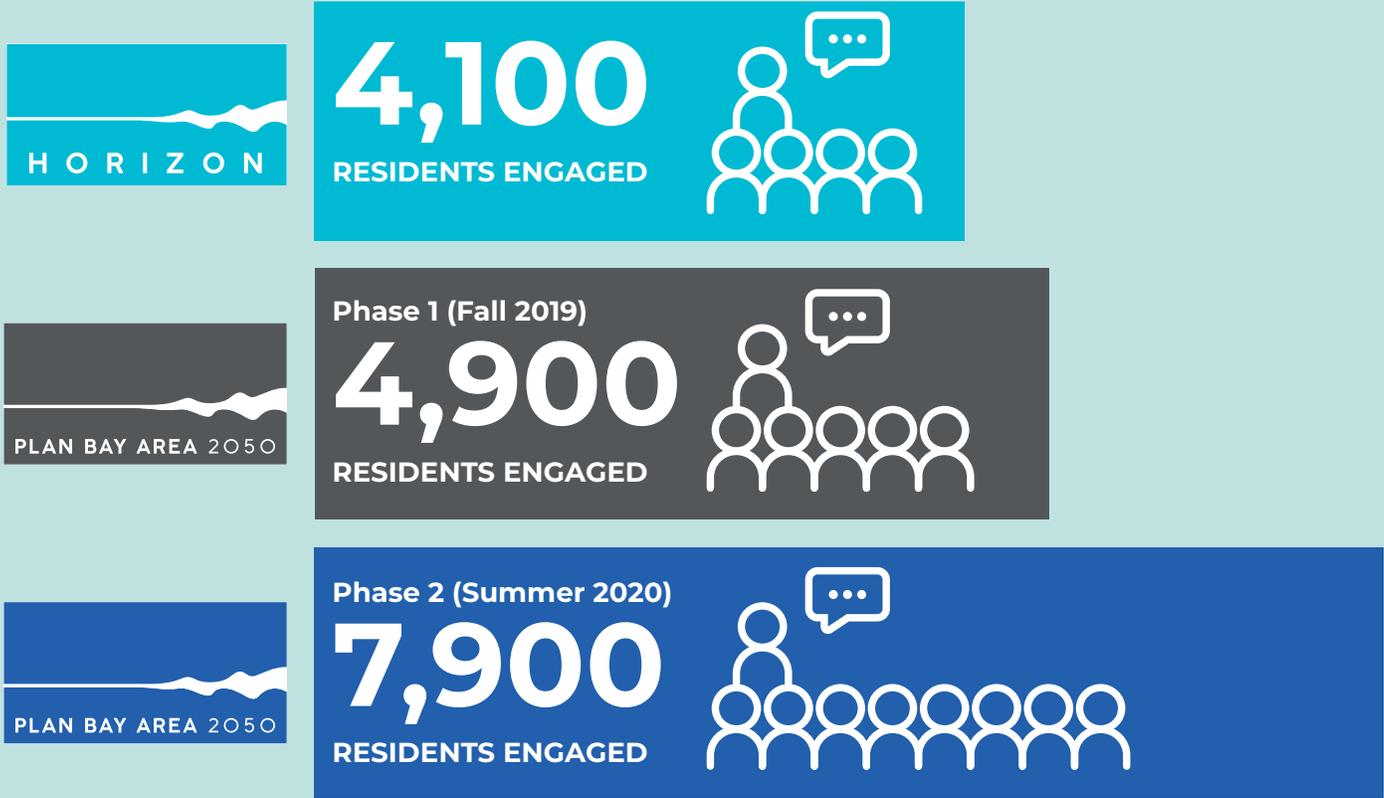
When COVID-19 shelter-in-place orders hit the Bay Area in mid-March of 2020, MTC and ABAG staff had to devise new ways to reach the public while respecting social distancing requirements. Digital workshops and telephone town halls, two new engagement tools for the agencies, emerged as the most effective new methods of presenting in-depth content and receiving quality feedback from the general public. The workshops and telephone town halls were held in English, Spanish and Chinese.



Photo: Robinson Kuntz

Throughout summer 2020, MTC and ABAG held 25 events. Residents and stakeholders were able to provide their feedback via online survey, informal virtual “coffee chats,” email, telephone, a statistically valid telephone poll, virtual office hours and an online tribal summit. Over 170,000 comments were received from more than 7,900 residents.

The last public engagement opportunity for Plan Bay Area 2050 will be in summer 2021 following the release of the Draft Plan Bay Area 2050 document. For more information on Plan Bay Area 2050’s outreach and engagement process, please see the Draft Plan Bay Area 2050 Public Engagement Report and the Draft Plan Bay Area 2050 Native American Tribal Outreach and Government-to-Government Consultation Report.



# PLAN BAY AREA 2050 GROWTH GEOGRAPHIES

## FOCUS AREAS FOR FUTURE HOUSING AND JOBS GROWTH

Throughout Plan Bay Area 2050, Growth Geographies are geographic areas used to guide where future growth in housing and jobs would be focused under the plan's strategies over the next 30 years. These geographies are identified for growth either by local jurisdictions or because of their proximity to transit or access to opportunity. The four types of Growth Geographies analyzed in Plan Bay Area 2050 are:



- **Priority Development Areas (PDAs):** Areas generally near existing job centers or frequent transit that are locally identified (i.e., identified by towns, cities or counties) for housing and job growth.



- **Priority Production Areas (PPAs):** Locally identified places for job growth in middle-wage industries like manufacturing, logistics or other trades. An area must be zoned for industrial use or have a predominantly industrial use to be a PPA.



- **Transit-Rich Areas (TRAs):** Areas near rail, ferry or frequent bus service that were not already identified as PDAs. Specifically, these are areas where at least 50% of the area is within 1/2 mile of either an existing rail station or ferry terminal (with bus or rail service), a bus stop with peak service frequency of 15 minutes or less, or a planned rail station or planned ferry terminal (with bus or rail service).



- **High-Resource Areas (HRAs):** State-identified places<sup>3</sup> with well-resourced schools and access to jobs and open space, among other advantages, that may have historically rejected more housing growth. This designation only includes places that meet a baseline transit service threshold of bus service with peak headways of 30 minutes or better.

The map on the following page shows the four Growth Geographies, all of which are foundational to Plan Bay Area 2050.

<sup>3</sup> Plan Bay Area 2050's High-Resource Areas are a subset of the high-opportunity areas identified statewide by the California Department of Housing and Community Development that meet a minimum transit service threshold and are located in the Bay Area. See more at: <https://www.treasurer.ca.gov/ctcac/opportunity.asp>

# MAP 1.1 Plan Bay Area 2050 Growth Geographies

- Priority Development Area\*
- Priority Production Area
- Transit-Rich Area
- Transit-Rich and High-Resource Area
- High-Resource Area with Basic Bus Service\*\*
- Regional Rail Station (Existing)
- Regional Rail Station (Plan Bay Area 2050)
- Regional Transit (Existing)
- Regional Rail (Plan Bay Area 2050)\*\*\*
- ✈ Major Airport
- ⚓ Major Seaport

\* Priority Development Areas are locally designated geographies that, in general, meet state Transit/ABAG criteria as well as additional MTC/ABAG criteria.

\*\* Peak headways of 16 to 30 minutes (January 2020).

\*\*\* Includes intercity rail, commuter rail, and heavy rail systems. New Transbay Rail Crossing alignment is representative only.

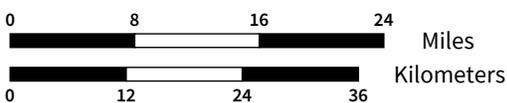
Areas shown are conceptual, and do not supersede local government land use authority. Specific levels and types of development will be determined through local planning.

The following areas are excluded from the map: wildland urban interface areas; unmitigated High Hazard Areas; areas of unmitigated sea level rise; and open spaces within urbanized areas. To complement adopted PDAs, High-Resource and Transit-Rich Areas are shown in jurisdictions that have nominated a total land area for PDAs that is less than 50% of the area within its boundaries eligible for PDA designation.

### SCALE

**OAKLAND** > 350,000

Novato 50,000 – 350,000

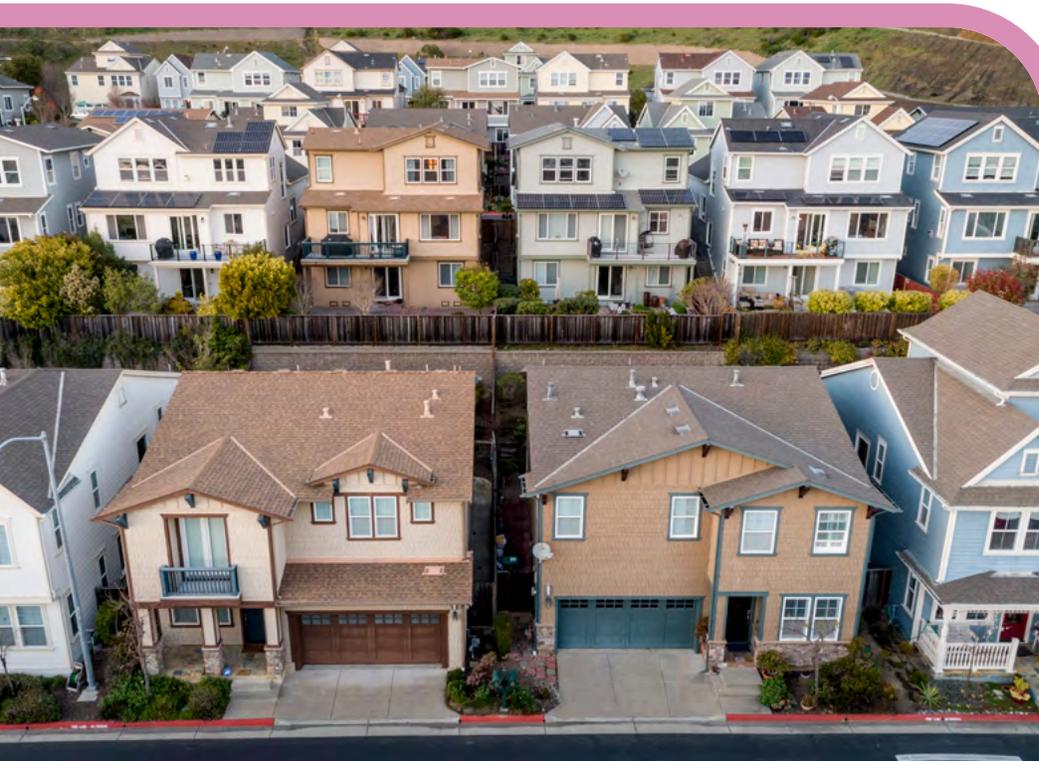




Top Photos: Noah Berger



## 2 | Housing



Bottom Photos: Karl Nielsen



## A LONG-RANGE VISION FOR HOUSING

Housing is among the most basic human rights, the literal foundation where we rest our bodies, build homes and families, and live much of our lives. As the largest expense in the average family's budget, the cost of housing can have a huge impact on a family's ability to meet other basic needs. Home locations also influence the job, transportation, healthcare and recreation options available to us, as well as health impacts like exposure to pollution.

The Bay Area has 2.5 million homes and counting throughout its nine counties.<sup>1</sup> To accommodate a growing population expected to reach 10 million by 2050, more housing will need to be built throughout the region. Where that housing is built, and in what form, can impact the greatest challenges facing the Bay Area today, including housing affordability, job opportunities and greenhouse gas emissions. Strategies that enable housing production at all price points, while coordinating with existing and future transit service, can help the region to grow sustainably. Support for affordable housing production, access to opportunities like home ownership, and renter protections can help the region to grow more inclusively. Plan Bay Area 2050 showcases a vision for housing the 10 million people expected to live in the Bay Area in 2050, to be implemented by the region's 101 cities and towns using their deep knowledge of local needs and resources.



Photo: Noah Berger

1 ABAG and MTC (2021, January). *Plan Bay Area 2050: Final Blueprint Growth Pattern*. [https://www.planbayarea.org/sites/default/files/pdfs\\_referenced/FinalBlueprintRelease\\_December2020\\_GrowthPattern\\_Jan2021Update.pdf](https://www.planbayarea.org/sites/default/files/pdfs_referenced/FinalBlueprintRelease_December2020_GrowthPattern_Jan2021Update.pdf)



## ADVANCING EQUITY THROUGH HOUSING

In Plan Bay Area 2050, an equitable future in housing is a future where every resident enjoys the bedrock of a strong, vibrant community: a safe, stable, affordable, high-quality home. Equitable housing in the Bay Area means increased access to opportunity — such as well-resourced schools and well-maintained transit — for all, regardless of race or income. Strategies in Plan Bay Area 2050 facilitate this access to opportunity for families with low incomes by allowing for increases in affordable housing in places like High-Resource Areas<sup>2</sup> and historically exclusionary areas.

Equity also means more housing choices for families that have historically had few options. This includes ensuring families have the ability to stay in their homes and maintain the community connections and cultural fabrics of their neighborhoods, without being priced out. Families will also benefit from planned investments in their communities, including enhanced transit service, and improved parks and open space, to name a few.

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2 See the Growth Geographies section in the Introduction for more information on High-Resource Areas.



Photo: Noah Berger

## WHAT IS “AFFORDABLE HOUSING”?

The Bay Area housing market consists of market-rate, rent-regulated and deed-restricted affordable housing.

Over 90% of Bay Area homes are **market-rate**, meaning they are bought, sold or rented on the private real estate market. The price of new and existing market-rate housing is influenced by supply and demand, resulting in unaffordability to most residents with low and moderate incomes. Factors such as high land and construction costs, minimum parking requirements, maximum unit densities and other local policies contribute to higher supply costs. Swiftly increasing demand for housing compounds these supply-side challenges, leading to higher rents and home prices.

Cities or counties may voluntarily adopt **rent regulations** to stabilize rents or protect renters from discrimination. Rent regulations apply to homes in privately owned buildings subject to local government-adopted policies. For example, a city or county may adopt maximum annual rent increases or protections against eviction without a “just cause.”

A small share of homes in the Bay Area today are **deed-restricted affordable housing**. In accordance with state and federal standards, the price of these homes is tied to affordability levels for households with low and moderate incomes, for a period of time defined in the deed of ownership for a property. Homes with deed restrictions lasting 55 years or more are often considered “permanently affordable,” though few mechanisms exist to ensure true permanency. Deed-restricted affordable homes are created through a variety of mechanisms, including the preservation

of existing homes occupied by households with low incomes and the production of deed-restricted affordable units by developers.

Both non-profit housing developers and developers that build market-rate housing may develop deed-restricted affordable housing — in some cases, to comply with “inclusionary zoning,” i.e., policies requiring that a share of new housing units be deed-restricted affordable. Generally, deed-restricted homes involve some form of public subsidy or are created to comply with regulatory requirements.

Public funding to support affordable housing production or preservation in the Bay Area has sharply declined since the 1980s, and today the region has among the smallest shares of deed-restricted affordable housing in the industrialized world. There is growing pressure for government to do more to address housing affordability for families with low and moderate incomes, especially in the wake of the COVID-19 pandemic.

Locally, efforts to address the “missing middle” — the shortage of homes affordable to families with moderate incomes — have been gaining momentum. Cities are exploring ways to increase their supply of duplexes, fourplexes and bungalow courts, and school districts in cities like Berkeley and San Francisco are exploring subsidized housing for teachers. Efforts like these suggest that housing cost relief in the region may expand to include more families with moderate incomes.

The commonly used income categories used to determine eligibility for deed-restricted affordable housing today (subject to variations for household size and other factors) are defined in Table 2-1.

**Table 2-1.** Defining affordability thresholds

HOUSEHOLD INCOME CATEGORY	INCOME THRESHOLD	EXAMPLE JOBS
Extremely Low Income	Up to 30% of AMI	Farm worker, barista, cashier, housekeeper
Very Low Income	30% to 50% of AMI	Waiter, delivery driver, security guard, nursing aide
Low Income	50% to 80% of AMI	Teacher, retail manager, emergency medical technician
Moderate Income	80% to 120% of AMI	Construction site manager, data analyst, accountant
Above-Moderate Income	Above 120% of AMI	Doctor, software engineer, firefighter, CEO

## Planning for Resilience to Housing Uncertainty

A family’s ability to pay for housing can be vulnerable to economic ups and downs, and further uncertainties will shape housing markets in the coming decades. Climate hazards could devastate housing supply. Future preferences in housing may drive demand for either more suburban single-family homes or for apartments in cities close to transit and jobs. Housing costs, undeniably influenced by supply and demand, will also shift based on construction costs and population growth. The strategies included in the housing, environment and economy chapters of Plan Bay Area 2050 are responsive to these unknowns. They build on a robust framework developed in MTC and ABAG’s most recent long-range plan, Plan Bay Area 2040, which was adopted in 2017. The 2017 plan highlighted how insufficient action on regional housing policy could lead to even more unaffordability for all residents, and it called for bold regional action to tackle this challenge.

Plan Bay Area 2050 promotes stable and affordable housing that all Bay Area residents can rely on in a variety of uncertain future conditions. There is no silver bullet to solve the Bay Area’s housing crisis, so the package of housing strategies included in Plan Bay Area 2050 leverages all tools currently at the region’s disposal. New partnerships and investments can make affordable, resilient and long-term housing a reality in the face of uncertainty. The eight housing strategies offered in this chapter fall into three themes, working together toward an affordable, inclusive future:

- 1. Protect and preserve affordable housing:** To increase housing security, the plan promotes further strengthening of renter protections beyond existing state law. It also seeks to preserve existing affordable housing, including through expansion of pathways to homeownership.
- 2. Spur housing production for residents of all income levels:** The plan spurs housing production by encouraging jurisdictions to allow a greater mix of housing densities and types in areas that can accommodate growth. It also calls on cities and towns to promote adequate affordable housing, and it centers the integration of affordable housing into all major housing projects. Creative re-envisioning of aging malls and office parks as new, transformed neighborhoods is another approach to help underused space meet current and future community needs.
- 3. Create inclusive communities:** By providing targeted mortgage, rental and small business assistance to low-income communities and communities of color, and by accelerating the reuse of public and community-owned land for mixed-income housing, the plan promotes inclusive communities where many different types of people can work, live and interact together.



Photo: Joey Kotfica

## STRATEGIES Protect and Preserve Affordable Housing

To protect current residents, especially those with the most precarious housing situations, Plan Bay Area 2050 proposes to **strengthen renter protections beyond state law**. This strategy builds upon an emergency rent cap established in 2019<sup>3</sup> by linking annual rent increases for all types of housing regionwide to the rate of inflation. New units would be exempt for a period of 10 years (the timeframe developers and lenders typically use to determine the financial feasibility of a project) to ensure that the strategy does not discourage new housing production. The plan also proposes a regional network of tenant protection services, such as legal assistance and strengthened enforcement of recently adopted and longstanding protections, including stronger enforcement of fair housing laws. Some individual cities and organizations provide emergency legal assistance to tenants and operate rental and mortgage assistance funds, but regional coordination of this patchwork of programs could make the most of available funding and promote consistent standards and best practices.

While long-term actions like building and preserving more affordable housing for the Bay Area are crucial, tenant protection programs are equally critical tools to keep people housed and prevent homelessness. Currently, there is an acute need for enhanced tenant protection programs, as thousands of renters in the Bay Area risk immediate displacement upon the expiration of pandemic-enacted eviction moratoria. Comparable to the benefits that homeowners receive from Proposition 13's limits on property tax increases, renter protections can reduce rental housing volatility and support housing stability while enabling market-rate and affordable housing production to continue.

Renter protections play an important role in providing stability and preventing displacement, but they are only one part of the solution to a much larger problem. Looking out over the next three decades, robust renter protections — tied together with continued efforts to add secure, affordable housing and prevent its conversion to market-rate housing — provide a holistic effort to address the Bay Area's housing affordability challenges.

Building upon strengthened renter protections, the plan seeks to **preserve existing affordable housing** to expand housing security and pathways to home ownership for working families. This strategy would protect homes currently affordable to residents with low and moderate incomes (including both unsubsidized housing and homes with expiring deed restrictions) by funding their preservation as deed-restricted affordable housing. This process would involve pursuing tax incentives, targeted subsidies, favorable financing and other methods to transfer ownership of affordable units without deed restrictions<sup>4</sup> to individual tenants, housing cooperatives, or public or non-profit housing organizations, including community land trusts. Unsubsidized and subsidized affordable homes face challenges to their ongoing affordability. The cost of unsubsidized affordable homes can rise with few limitations as prices increase throughout the housing market. Deed restrictions keep subsidized homes affordable, but many are set to expire within the next 30 years.

Preservation aims to break a common displacement pattern: speculative acquisition of an aging building, eviction of the existing residents, renovation of the units, and then renting or selling the property to new residents with higher incomes. This pattern can displace residents with lower incomes while simultaneously reducing the housing stock affordable to them. The threat of displacement has only been heightened in the current environment, as investors become eager to acquire properties, displace tenants and list units at a higher price.

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3 The Tenant Protection Act of 2019 caps annual rent increases at 5%, plus inflation, for buildings 15 years and older and bans landlords from evicting tenants who have lived in their apartments for a year or more without “just cause.”

4 Affordable homes without deed restrictions are also known as “unsubsidized affordable housing,” and are sometimes referred to as “naturally occurring affordable housing.”

## THE REGION'S ROLE IN SOLVING THE HOUSING CRISIS BAHFA AND BEYOND

One of the most important emerging tools available to implement the plan's housing strategies is the Bay Area Housing Finance Authority (BAHFA). Established in 2019 through Assembly Bill 1487 (A. Mullin et al., Statutes of 2019), BAHFA has the potential to raise hundreds of millions of dollars annually through ballot measures and other revenue mechanisms for the entirety of the nine-county Bay Area. The new regional and local funding needed to ensure that every low-income household has access to permanently affordable housing is estimated in the plan at \$3.7 billion annually, and BAHFA equips the region with powerful financing potential to address systemic challenges.

While BAHFA represents a new opportunity to dramatically expand the Bay Area's capacity to coordinate planning, funding and delivery of affordable housing across the region, it also builds upon MTC's and ABAG's past strategic efforts to address the region's housing crisis. Other long-term approaches include:



**Planning Grants and Technical Assistance:** Through the Priority Development Area (PDA) Planning Program and the Regional Housing Technical Assistance Program, MTC and ABAG support local jurisdictions in completing plans that advance housing production and complete communities. Over its more than 10-year history, the PDA program has allowed cities to plan for more than 100,000 new housing units within walking distance of convenient transit. Established in 2020 with one-time state funding from a Regional Early Action Planning grant, the Regional Housing Technical Assistance Program will provide cities with tailored technical assistance to complete their upcoming Housing Elements.

**Investment in Affordable Housing:** Although neither ABAG nor MTC have historically played a major role in affordable housing, both agencies invest strategically in production and preservation efforts. Since 1978, ABAG has provided \$8 billion in low-cost capital to non-profits and local governments, much of it for affordable housing, through the Advancing California Finance Authority program. Through the \$50 million Transit-Oriented Affordable Housing program, MTC partners with community development financial institutions to provide developers access to flexible loans to purchase property near transit for affordable housing. MTC also invests in the nearly \$49 million Bay Area Preservation Pilot, which finances the acquisition and preservation of multifamily buildings occupied by low-income households, ensuring their long-term affordability.

**Legislative Advocacy:** As part of larger advocacy efforts, MTC and ABAG advocate for legislation that addresses regional housing needs, with a focus on tenant protection, affordable housing production and affordable housing preservation. In 2019, for example, the agencies not only supported legislation that established BAHFA, but also helped to pass the state's first tenant protection bill, Assembly Bill 1482 (D. Chiu, Statutes of 2019), which capped annual rent increases at 5% plus inflation. The agencies have also recently supported bills to make it easier for homeowners to build accessory dwelling units and to help make surplus public land more accessible to affordable housing developers. The agencies will continue to strategically pursue increased affordable housing funding and support policies and legislation at the state and federal levels that help expedite new housing for the Bay Area.



## STRATEGIES

### Spur Housing Production for Residents of All Income Levels

The magnitude of the Bay Area’s housing shortfall requires production strategies targeted at different segments of the affordability scale. First, **allowing a greater mix of housing densities and types in growth areas** will make it easier to meet the future housing needs of all Bay Area residents. Under this strategy, new homes of various affordability levels would grow first and foremost into parts of towns, cities and counties that their local governments identify for growth, generally near existing job centers or frequent transit. Additionally, other areas across the region with frequent, convenient transit would be candidates for new homes, as would well-resourced areas with advantages in school quality, job access and open space. These areas may have historically rejected more housing growth.

Rather than a one-size-fits-all approach, Plan Bay Area 2050 calls for tailoring the design and density of new homes to their local contexts. Larger-scale development would take place on vacant land or declining commercial lots, and smaller-scale housing (such as backyard accessory dwelling units) would be built in single-family neighborhoods. To support mixed-income, diverse communities, affordable housing would become easier to build throughout these growth areas. See the Growth Geographies section in the Introduction for more on areas that are targeted for housing growth, along with a map of these areas regionwide.

To sustain the region’s wealth of natural resources and open spaces, and provide residents greater access to transportation and jobs, Plan Bay Area 2050’s housing strategies work hand-in-hand with its environment, economy and transportation strategies. Housing and environment strategies protect areas outside of urban growth boundaries from new development and bring greenspace into urban areas. Areas at very high risk of wildfire or sea level rise impacts are protected from additional construction and development. Economic strategies guide job growth toward places that currently have few jobs, while housing strategies encourage housing near job centers, working in tandem to address the geographic imbalance of housing and jobs in the region.

Furthermore, transportation investments that increase transit service or support walking and biking in growth areas are especially important to housing and sustainability goals. Plan Bay Area 2050’s strategies to build a next-generation transit network and build a Complete Streets network that meets the needs of pedestrians, bicyclists and drivers, for example, would alleviate traffic congestion and transit crowding regionwide and provide safe, healthy transportation options in growing neighborhoods.





Photo: Karl Nielsen

## LOCAL CONTROL IN HOUSING POLICY

Generally, federal law delegates land use control to states. In the late 19th century, California further delegated authority over land use to local governments as part of the “home rule” movement.<sup>5</sup> While Plan Bay Area 2050 proposes strategies to help the region accommodate a growing population more equitably, it does not mandate any changes to local zoning rules, general plans or processes for reviewing projects; nor does the plan create an enforceable direct or indirect cap on development locations or targets in the region. The Bay Area’s cities, towns and counties maintain control of all decisions to adopt plans and to permit or deny development projects. Plan Bay Area 2050 also does not establish new state-mandated Regional Housing Needs Allocation (RHNA) numbers for any jurisdiction. Read more about the RHNA process on page 31.

Zoning has been a contentious contributor to the housing crisis and to racial inequity. Plan Bay Area 2050 views zoning reforms as one tool to shift the region’s housing landscape toward inclusivity by allowing for more housing of different types to be built. Zoning must always be approached from a context-specific lens that identifies opportunity sites for future growth, as well as areas where additional growth is inappropriate. Currently, two similarly located parcels can be zoned for dramatically different uses depending upon the communities in which they are located, with one permitting a wide spectrum of housing types, and another allowing only single-family homes on larger lots.

Plan Bay Area 2050’s Growth Geographies identify a mix of locally chosen Priority Development Areas, areas near high-quality transit and areas of high opportunity as communities poised to accommodate additional growth. Meanwhile, areas outside of the existing urban footprint or in areas that are at a very high risk of wildfire are identified as areas where additional construction should be deprioritized.

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<sup>5</sup> Article XI, Sections 4 and 5 of the California Constitution

While more housing for people at every income level is needed, it is especially crucial that the Bay Area **build adequate affordable housing** for residents with lower or no incomes, including the unhoused, to meet the needs that market-rate developers are unable to serve. By making existing funds go further, establishing new funding sources, expanding regional coordination, and introducing incentives, this strategy would ensure that the estimated 400,000 new permanently affordable units needed in the region between now and 2050 are built. To protect the communities most vulnerable to harsh market forces, the strategy would also build enough deed-restricted homes to re-house community members experiencing homelessness or living in overcrowded housing. The recently established Bay Area Housing Finance Authority (BAHFA) has the authority to generate revenues to fund these measures, making it a key tool at the region's disposal.

Increasing affordable housing production in High-Resource Areas and in places where affordable housing has historically been prohibited, opposed or discouraged can increase access to opportunities like high-quality homes, schools and transportation for residents with low incomes. Residents currently experiencing displacement due to rising housing costs can also benefit from a concerted effort in affordable housing production. This strategy would prioritize existing or recently displaced community members to ensure that residents have an opportunity to remain within their neighborhoods.

Placing affordable housing production close to transit could provide people with low incomes the opportunity to benefit from transit access while reducing climate emissions from cars on the road, serving both environmental and equity goals. For the many jobs in communities that are not located near transit, however, housing production near jobs can enable shorter commutes to reach climate goals, even if people still have to drive.

In addition to building standalone affordable housing, Plan Bay Area 2050 calls for **integrating affordable housing into all major housing projects** to meet the needs of all residents by 2050. Numerous Bay Area cities have had inclusionary housing policies in effect for years, requiring developers to reserve a set number of homes in new buildings as affordable units. These policies promote the development of mixed-income apartment buildings without requiring a direct government subsidy. Instead, the cost of providing affordable housing is built into the developer's financial projections. Plan Bay Area 2050 envisions a regional approach to inclusionary zoning that is context-specific, with requirements for affordable housing ranging from 10% to 20% of the total number of apartments built. The percentage would be based on factors like the strength of the housing market and proximity to amenities like transit or well-resourced schools. An exemption for buildings with five units or less would allow homeowners to affordably add backyard cottages and other accessory dwelling units.

The Bay Area's severe housing shortage will require innovative solutions as well as time-tested methods. One novel idea is to **transform aging shopping malls and office parks** into vibrant, mixed-use neighborhoods incorporating open space, shops, services and housing. With department stores and other retail storefronts facing a steady decline since the takeoff of online shopping (accelerated by the COVID-19 pandemic), this strategy turns an economic development challenge into an opportunity. Reimagining large, underutilized commercial spaces as housing can form an important nexus with economic development to transform the quintessential single-use sites of the 20th century into 21st century spaces that meet the needs of the future. This strategy would prioritize projects in Transit-Rich Areas and High-Resource Areas that provide high levels of affordable housing by providing technical assistance and low-interest loans. In addition to offering housing for people with a wide range of income levels, these revitalized sites could also become centers of community and learning. Public institutions such as community colleges and university extensions could complement retail and essential services.

## REGIONAL HOUSING NEEDS ALLOCATION: PLANNING FOR NEAR-TERM HOUSING DEMAND

Every eight years, the California Department of Housing and Community Development (HCD) engages with each region in the state to determine how housing production will sufficiently meet the housing needs of people at all income levels in a process called the Regional Housing Needs Allocation (RHNA).<sup>6</sup> For the period from 2023 to 2031, HCD has identified a need of more than 441,000 housing units in the Bay Area — more than double the amount from the last eight-year cycle (187,000 units between 2015 and 2023).

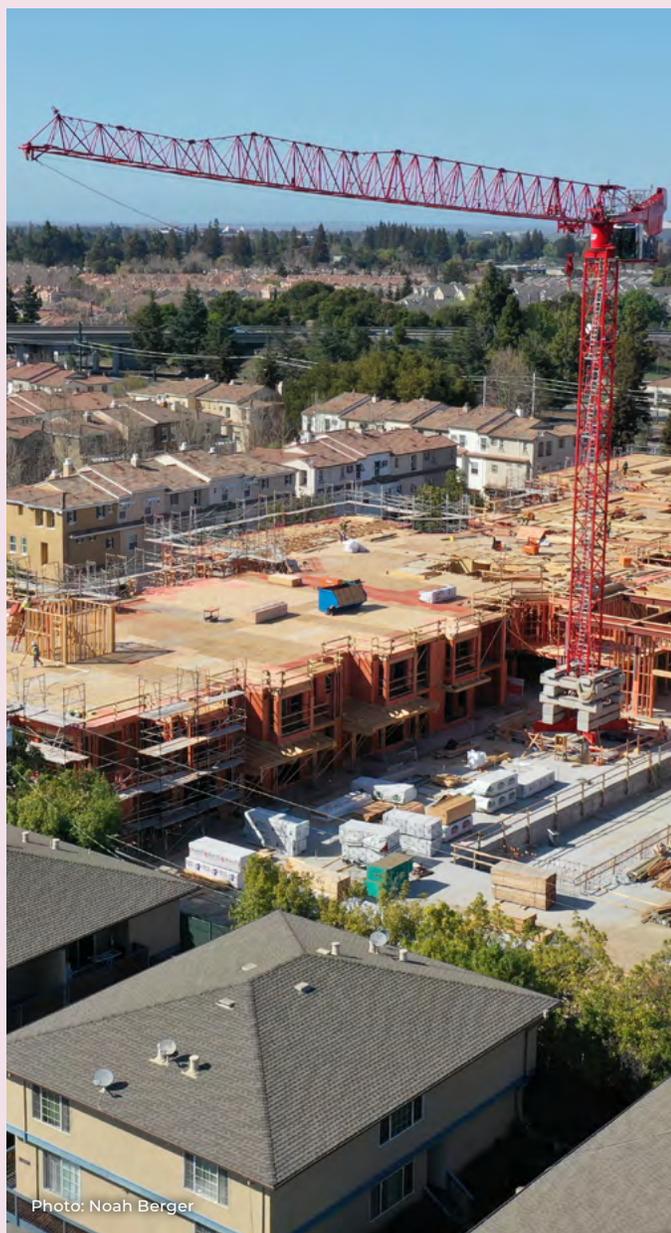


Photo: Noah Berger

In the Bay Area, ABAG must allocate each city and county a share of this forecasted number of housing units needed to increase the housing supply and mix of housing types for all jurisdictions in ways that also promote equity, strengthen the economy, improve connections between jobs and housing, and protect the environment. A new requirement for this RHNA period is that the allocations must affirmatively further fair housing, which means overcoming patterns of segregation and fostering inclusive communities that provide access to opportunity for all people.

After receiving their allocated housing units for the eight-year period from ABAG, each jurisdiction must update the Housing Element of its general plan to show where new housing could be built — a challenging prospect given the higher number of new homes needed. In addition to the overall number of homes assigned to each jurisdiction, the RHNA process dictates that housing must be planned for every affordability level. Historically, housing permitting in the Bay Area has not kept pace with its RHNA housing targets for housing affordable to households with lower and moderate incomes. Housing Elements for this RHNA period must also demonstrate how they affirmatively further fair housing.

RHNA and Plan Bay Area 2050 discuss planning for housing on two separate time horizons: RHNA focuses on the shorter-term with its eight-year focus, while Plan Bay Area 2050 presents a longer-term vision for the next 30 years. The two efforts, however, are coordinated, with RHNA's near-term focus setting the stage for early implementation of Plan Bay Area 2050's envisioned growth pattern.

To assist cities and counties with planning for new housing this cycle, HCD provided new state funding of \$250 million in the 2019-20 State Budget; \$25 million of these funds went directly to Bay Area jurisdictions, with an additional \$24 million allocated to ABAG. ABAG is deploying its funds in several ways, including via subgrants to all 109 jurisdictions. ABAG is also offering technical assistance, such as providing jurisdiction-specific data packets that include charts and graphs that local staff can add directly into their Housing Elements. Innovative community engagement ideas geared toward an increasingly online audience and a regional consulting bench are also included in ABAG's strategy for these state funds.

6 To learn more about RHNA, visit the ABAG RHNA webpage at: <https://abag.ca.gov/our-work/housing/rhna-regional-housing-needs-allocation>.



Photo: Noah Berger



Photo: Karl Nielsen

## **STRATEGIES Create Inclusive Communities**

An additional suite of strategies works to move the Bay Area toward higher degrees of inclusivity and equity for all residents, complementing the 3 Ps of protection, preservation and production. These strategies recognize the need for targeted approaches that begin to reverse centuries of exclusionary race-based policies that have locked out people of color from homeownership and other housing opportunities.

Plan Bay Area 2050 aims to create inclusive communities by **providing targeted mortgage, rental and small business assistance to residents of Equity Priority Communities**. While a central tenet of Plan Bay Area 2050 is to encourage more housing, particularly affordable housing, in High-Resource Areas, this complementary strategy would be a first step to reverse the long trend of historic disinvestment in low-income communities of color. It would infuse investment into locally owned businesses and provide housing security for local residents. Targeted assistance includes a mix of mortgage down payment and rental assistance, with priority given to previously displaced or existing residents. Additionally, low-interest loans supporting small businesses would allow community institutions to remain in place while expanding access to the start-up funding historically denied to members of communities of color.

Plan Bay Area 2050 also envisions a Bay Area that **accelerates the reuse of public and community lands for mixed-income housing and essential services**. Thousands of acres of land owned by cities, transit agencies, school districts, counties or other public agencies are currently sitting vacant or underutilized. Since this land is publicly owned, it offers unique strategic opportunities to advance multiple priorities like affordability and economic development. Deed-restricted affordable housing is more feasible on publicly owned lands because acquiring the land, a major expense for development, has already been done. Public lands are key opportunity sites for increasing the Bay Area's supply of affordable housing, as well as nesting that housing within complete communities offering services and open space.

This strategy would establish a regional supply of land owned by public agencies, community land trusts and other non-profit landowners and coordinate its reuse as deed-restricted mixed-income affordable housing. Retooling public and community lands would involve matching sites with funding, developers and service providers, and also ensuring that projects benefit communities of color and other historically disinvested communities. Strategies to build adequate affordable housing and to provide targeted mortgage, rental, and small business assistance to Equity Priority Communities align with this strategy to reuse public and community lands. This strategy would also deliver a large share of affordable housing near the region's most frequent transit service. It would accelerate the efforts of transit agencies such as Bay Area Rapid Transit and the Santa Clara Valley Transportation Authority to reuse parking lots and other agency-owned land.

## HOUSING STRATEGIES Funding and Implementation

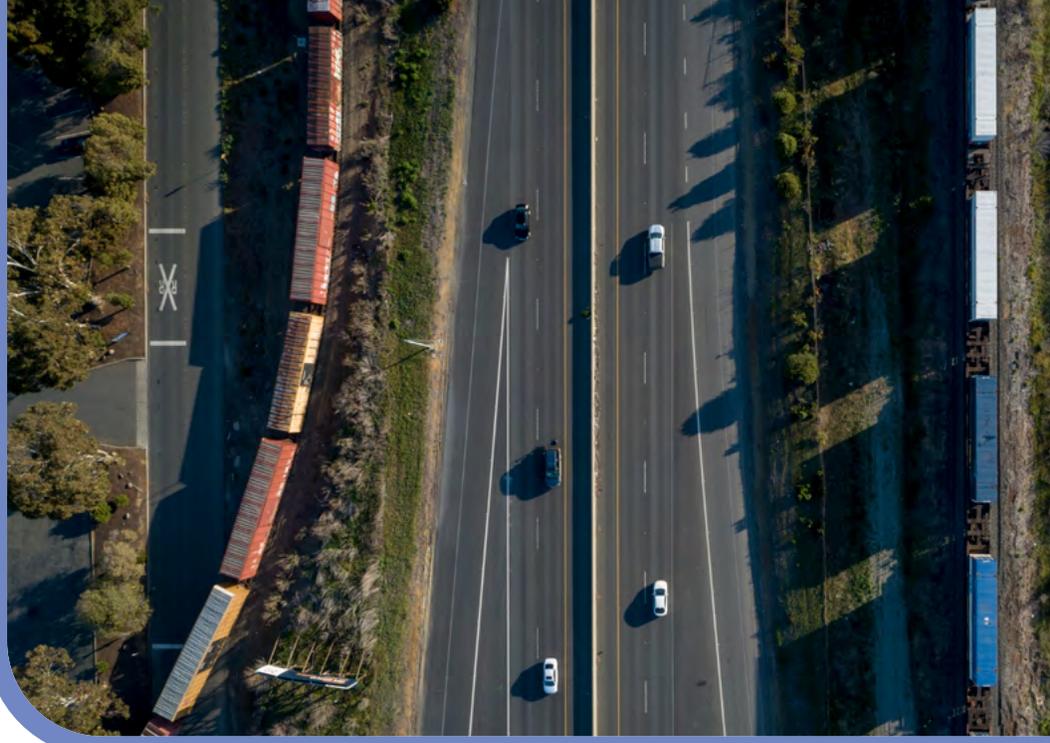
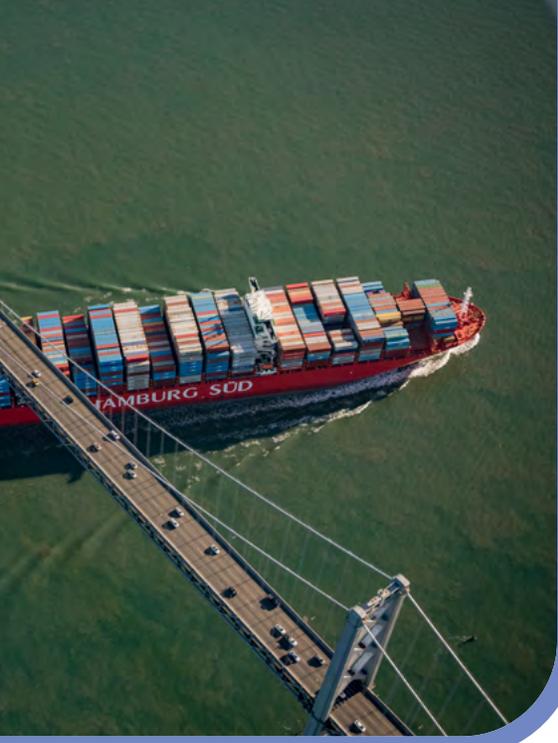
Together, Plan Bay Area 2050's eight housing strategies work toward a more equitable, affordable future for residents with low incomes, and for all residents, by preserving and protecting the affordable housing currently available; stimulating new housing production; and prioritizing inclusive, mixed communities. Through advocacy, legislation, regional initiatives, planning and research over the next 30 years, MTC and ABAG can work with partners to secure a \$468 billion investment into our region's future housing needs, ensuring that everyone in the Bay Area has a safe, affordable home — especially those historically marginalized and currently underserved.



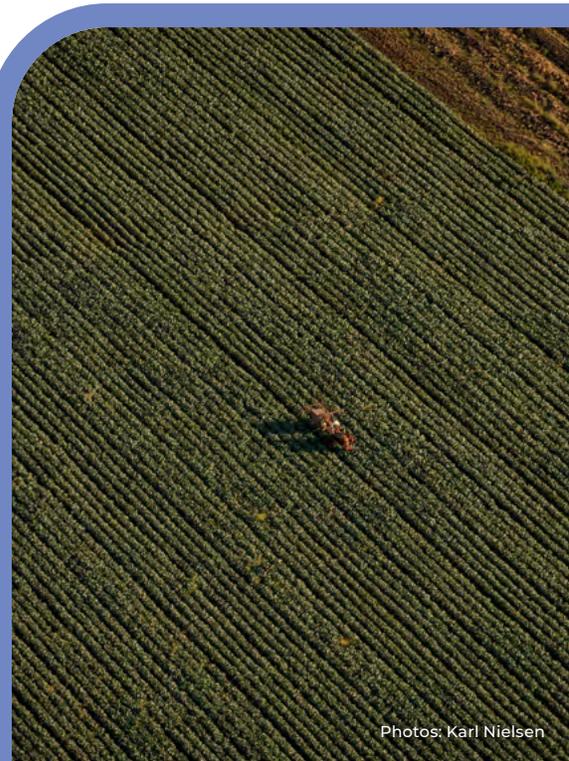


## Housing Strategies — Cost : \$468 Billion

Protect and Preserve Affordable Housing	H1. <b>Further strengthen renter protections beyond state law.</b> Building upon recent tenant protection laws, limit annual rent increases to the rate of inflation, while exempting units less than 10 years old.	\$2 BILLION
	H2. <b>Preserve existing affordable housing.</b> Acquire homes currently affordable to low- and middle-income residents for preservation as permanently deed-restricted affordable housing.	\$237 BILLION
Spur Housing Production for Residents of All Income Levels	H3. <b>Allow a greater mix of housing densities and types in Growth Geographies.</b> Allow a variety of housing types at a range of densities to be built in Priority Development Areas, select Transit-Rich Areas and select High-Resource Areas.	N/A
	H4. <b>Build adequate affordable housing to ensure homes for all.</b> Construct enough deed-restricted affordable homes to fill the existing gap in housing for the unhoused community and to meet the needs of low-income households.	\$219 BILLION
	H5. <b>Integrate affordable housing into all major housing projects.</b> Require a baseline of 10-20% of new market-rate housing developments of five units or more to be affordable to low-income households.	N/A
	H6. <b>Transform aging malls and office parks into neighborhoods.</b> Permit and promote the reuse of shopping malls and office parks with limited commercial viability as neighborhoods with housing for residents at all income levels.	N/A
Create Inclusive Communities	H7. <b>Provide targeted mortgage, rental and small business assistance to Equity Priority Communities.</b> Provide assistance to low-income communities and communities of color to address the legacy of exclusion and predatory lending, while helping to grow locally owned businesses.	\$10 BILLION
	H8. <b>Accelerate reuse of public and community-owned land for mixed-income housing and essential services.</b> Help public agencies, community land trusts and other non-profit landowners accelerate the development of mixed-income affordable housing.	N/A



## 3 | Economy





## A LONG-RANGE VISION FOR THE ECONOMY

Since the 1800s, booms and busts have characterized the Bay Area's economy. Through the 19th century Gold Rush, the "dot-com" bubble of the 1990s, record economic growth into the 21st century, and the latest recession in the wake of the COVID-19 pandemic, a spirit of innovation has defined the region through both good times and downturns.

The Bay Area has long prided itself on a diverse range of industries, including its internationally renowned technology sector and world-famous wine industry, and a well-educated labor force. The region's economy guides the magnitude and location of job growth, which in turn influences commute flows and workforce development. Economic trends can either provide pathways to upward economic mobility or deepen wage inequality.

Over the next three decades, continuing cycles of economic growth and decline are sure to be a reality. Policies and investments that strengthen existing social safety nets and train the next generation of Bay Area workers and entrepreneurs can help families weather periods of economic recession. In times of economic booms, policies that balance out the locations of new housing and jobs can lessen the potential negative side effects of a vibrant economy, such as congested freeways and crowded trains. With the right partnerships and policies, the economy can be a force for equity and societal growth.



Photo: Noah Berger

## ADVANCING EQUITY THROUGH THE ECONOMY

With a gross domestic product of over \$900 billion,<sup>1</sup> the Bay Area economy has ample opportunity to better serve historically marginalized communities as it recovers from the impacts of COVID-19. In an equitable economy, all residents would be secure in their finances, even under deeply uncertain and shifting conditions. Plan Bay Area 2050's universal basic income strategy would help Bay Area residents with low or no incomes to meet their basic needs, while job training programs and guaranteed high-speed internet access would prepare residents for the future economic landscape. The Bay Area's economy would return to its pre-pandemic vigor, but future economic gains would be shared more evenly across the region's population. Small local businesses would sustain vibrant neighborhoods where residents could reinvest their money in local goods and services. With equity in sight, government support would help people who have been historically excluded from wealth-generating opportunities — like homeownership — to achieve these goals.

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1 MTC, ABAG and Partners (2019). Vital Signs: Economic Output. <https://www.vitalsigns.mtc.ca.gov/economic-output>

## Planning for Resilience to Economic Uncertainty

The future of the Bay Area's economy will be shaped in large part by forces outside of the region's control. Decisions made by national and state leaders will ripple through regional and local levels, affecting everything from interest and tax rates, minimum wages, and trade policies to transit funding and housing policy. Automation may render large swaths of jobs obsolete in the retail, service and manufacturing sectors while the rise of online platforms continues to shape those job markets, escalating the upward trend of employment in warehouses and part-time gig work. Economic recovery from the pandemic may be swift or slow, robust or weak. Income inequality may worsen over the next three decades, or society may find more equitable solutions. Leading economists and world leaders who grapple with such questions often disagree, further underscoring the need for policy and investment designed to withstand these uncertainties.

To remain resilient in the face of these unpredictable forces, Plan Bay Area 2050 includes strategies that work together to address a variety of economic situations. The strategies outlined in this chapter fall into two overall themes to improve economic resilience:

- 1. Improve economic mobility:** The plan aims to reduce poverty and bolster the middle class by investing in a suite of job training programs that prepare Bay Area residents for the future economic landscape. Relatedly, the plan strategizes to ensure that every resident has high-speed internet to take advantage of all current job and education opportunities. A universal basic income further improves economic safety for residents most in need.
- 2. Shift the location of jobs:** The plan supports a more balanced distribution of housing and jobs throughout the Bay Area, resulting in communities where people can live near where they work (if they choose), by promoting more dense growth near transit and incentivizing employers to locate jobs near homes and transit. Finally, the plan protects and improves key industrial lands that are important for both middle-wage jobs and services such as manufacturing across the Bay Area.



## THE FUTURE OF JOBS

PERSPECTIVE PAPER

MAY 2019

HORIZON

### HORIZON INITIATIVE AND THE FUTURE OF JOBS

As part of the planning process leading up to Plan Bay Area 2050, MTC and ABAG explored the changing nature of jobs and other economic issues, as well as potential solutions, through the Horizon initiative. *The Future of Jobs Perspective Paper* looked at the Bay Area economy from four different lenses: automation and the risks it could entail; organizational changes, including the gig economy and the decline of salaried jobs; longstanding increases in regional inequality as top incomes rise; and the location and type of jobs that are growing in the region. Shaped by robust public engagement, the most promising strategies identified in the paper were carried forward into Plan Bay Area 2050, ranging from job retraining programs to the integration of a universal basic income.

## STRATEGIES

### Improve Economic Mobility

As the types of jobs available to Bay Area residents continue to shift, fewer and fewer middle-wage jobs are projected to be available. This trend is typified by the manufacturing sector, which has seen employment numbers fall as automation enables more output with fewer workers. The outsourcing of work to states and countries with lower wages further drives the disappearance of middle-wage jobs in the region. Concurrently, the Bay Area's cost of living has risen significantly, buoyed by a self-reinforcing cycle of higher-wage job growth and rising housing costs. A stronger safety net, coupled with a concerted effort to open up more pathways to middle-wage jobs, is critical to ensuring that no one is priced out of the Bay Area.

Improving economic mobility is a complex undertaking beyond MTC's and ABAG's jurisdictional spheres that will require a coordinated, multi-pronged approach, as well as strong partnerships. Employers, educational institutions and job-training providers have a large role to play in reaching for economic equity, as do agencies at all levels of government. Private, public and community-based leaders will need to align policies, strategies and tactics to create a sustainable and thriving economic ecosystem that focuses explicitly on equity.

In the face of an ever-evolving labor market and increasing rates of job automation, a flexible workforce with in-demand skills is critical to ensuring continued economic growth and shared prosperity. While government has historically played a limited role in shaping the future labor market, a suite of approaches to **expand job training and incubator programs** could help to align the region's workforce with future needs and launch a next generation of entrepreneurs. Business incubators are organizations that offer leadership, support, technical assistance and physical workspace for entrepreneurs at all career stages, and they may become central hubs for workforce development in the coming decades.

Funding assistance programs for establishing new businesses, as well as job training programs in partnership with community colleges, could make a major difference in preparing workers for the jobs of tomorrow. Locating these programs primarily in historically disinvested communities and in Priority Production Areas<sup>2</sup> that are identified by cities and towns for future jobs growth can ensure that the process is done equitably and in sync with local economic development plans.

Paired with training programs to make sure workers and entrepreneurs have the right skills to match market demand, a strategy to **invest in high-speed internet in underserved, low-income communities** provides the necessary infrastructure to connect all Bay Area residents to remote work, education or e-commerce opportunities. Public health restrictions during the COVID-19 pandemic spurred a broad new swath of workers to telecommute in 2020, demonstrating to society that working from home effectively is both possible and potentially more desirable than many previously thought. From 2021 onward, telecommuting may become more commonplace than it was prior to the pandemic, though the full extent of the pandemic's effects on the workplace will likely take years to unfold. The recent shifts from in-person to online activities could become a long-term cultural shift as well, requiring everyone to have internet access for educational opportunities, healthcare appointments and more.

For most, working from home or engaging in other remote activities requires access to high-speed internet capable of video conferencing and transferring large amounts of data. However, many communities, both rural and urban, do not have the infrastructure needed to support such connectivity, and they could be left behind in a future economy that revolves around long-term remote connections. Plan Bay Area 2050's strategy to expand internet access envisions direct subsidies for families with low incomes to provide high-quality connectivity at a low cost. Looking out to 2050, infrastructure upgrades to extend high-speed internet cables along roads and other publicly owned rights-of-way could provide more Bay Area families with access to this increasingly important resource.

<sup>2</sup> Learn more about these areas in the Growth Geographies section in the Introduction.

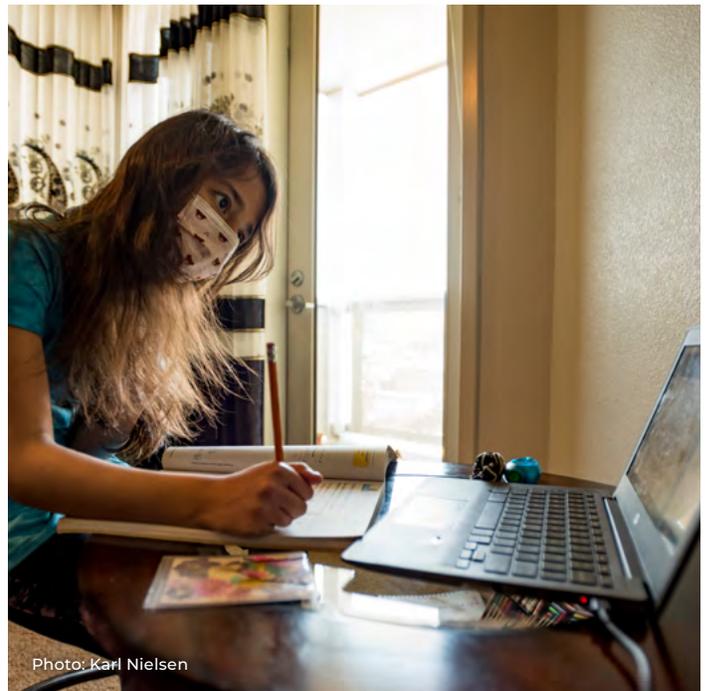


Photo: Karl Nielsen

## ADVANCING ACCESS TO HIGH-SPEED INTERNET

High-speed internet service is no longer a luxury. As a utility approaching the importance of water or electricity in present-day California, internet connectivity is essential to both daily life today and a vision of a more equitable future. A plan to provide affordable, reliable, high-speed internet to all Bay Area residents is one step in overcoming historic barriers to opportunity. More than 1.5 million California households do not have access to high-speed internet, and most of these households are in poor or historically disinvested communities or in rural areas.<sup>3</sup>

Even before COVID-19, the need for a coordinated approach to ensure affordable high-speed internet access to all Bay Area residents and businesses was apparent, but the pandemic made the gaps all the more glaring. Whether you are a student trying to learn remotely, a patient that relies on telehealth services, an employee collaborating with a remote team, or a job-seeker jumpstarting a new career, reliable internet connectivity is essential to daily life. The Bay Area could partner with local jurisdictions as well as various state and regional broadband consortia to rapidly advance solutions that address the digital divide and make high-speed internet available to all in the region.

<sup>3</sup> California Emerging Technology Fund. (2021). Statewide Surveys: California Broadband Adoption by the Numbers. <https://www.cetfund.org/action-and-results/statewide-surveys/>



Photo: Noah Berger

Building a truly inclusive economy will require bold action to ensure no one is left behind, embodied by a proposal to work with partners across the state to **implement a statewide universal basic income**. While job training programs and high-speed internet access are targeted strategies to improve economic mobility, a more transformational approach could guarantee a baseline level of income for all households in California. Because the Bay Area is part of the larger Northern California megaregion — and due to the significant amount of new funding required to advance a universal basic income program — this strategy would be deployed on a broader geographic scale than other strategies, in partnership with neighboring regions and key state partners.

Stimulus checks that were sent out as part of the Coronavirus Aid, Relief, and Economic Security Act in response to COVID-19 were a recent example of universal basic income in action, providing much-needed funds to help struggling families pay for essentials like food and rent. Plan Bay Area 2050 builds upon this approach with a vision of regular monthly payments to all residents statewide to supplement wages and existing social safety nets. These payments would average \$500 per month but vary based on household size — a baseline income set low enough to not disincentivize work, but instead supplement income and allow it to circulate through communities and spur local economic development. All households across the state would receive the universal basic income regardless of their resources, but tax increases on more affluent households would support the program, effectively canceling out any additional benefit for families with higher incomes.



Photo: Courtesy of Eden Housing

## UNIVERSAL BASIC INCOME CASE STUDIES

Universal Basic Income (UBI) is an often-touted policy response to address growing income inequality and poverty by providing a guaranteed minimum income to all people in a certain area. At the national level, a UBI bill passed the House of Representatives twice in the 1970s, but it did not go further due to senators' concerns about expanding welfare.

Despite promising early results, UBI remains in the testing stage, and the many pilots underway may provide more clarity on the questions surrounding it. One California UBI test that may offer valuable lessons to the Bay Area is the Stockton Economic Empowerment Demonstration project. Between February 2019 and February 2021, a group of 130 Stockton residents, selected at random and making below the city's median income, received \$500 a month. The median household income in Stockton,

which borders the Bay Area, is \$46,033 — 25% below the state's and nearly 50% below the Bay Area's median household income. Results of the study indicated that full-time employment rose among those who received the basic income and that their financial, physical and emotional health improved.<sup>4</sup> Several Bay Area jurisdictions are considering UBI test programs as well, including Oakland, San Francisco, South San Francisco, Marin County and Santa Clara County.

Recognizing that larger and much longer studies are needed before any conclusions about UBI in America can be made, Plan Bay Area 2050 proposes to implement a statewide UBI that provides an average payment of \$500 a month to all households. Although not enough to live on, this baseline income amount may help with everyday emergencies, reduce anxiety and health concerns, and improve family stability and access to opportunity. Plan Bay Area 2050's UBI strategy is also an opportunity to help test, refine and improve similar policies worldwide.

<sup>4</sup> Treisman, R. (2021, March 4). California Program Giving \$500 No-Strings-Attached Stipends Pays Off, Study Finds. *NPR*. <https://www.npr.org/2021/03/04/973653719/california-program-giving-500-no-strings-attached-stipends-pays-off-study-finds>

## STRATEGIES Shift the Location of Jobs

In addition to improving economic mobility for all residents — particularly our most underserved — the Bay Area must also address its *jobs-housing imbalance*. This term refers to the current distribution of where jobs and housing are located in the Bay Area. San Francisco and Silicon Valley have many more jobs than homes, and many communities in the East Bay see residents commuting across the Bay each day to reach their jobs. This trend is decades in the making, a result of land use policies focused on local needs and a transportation system that has been able to grow just enough to meet increased peak-period demand. It is also a product of the power of economic agglomeration, where like industries locate together (for example, information sector jobs clustered in the West Bay and South Bay).

This pattern of development cannot be sustained forever. If the status quo persists, commutes will continue to get longer, and the region risks losing jobs to other metro areas outside of the Bay Area with lower costs of living and more convenient commutes. In tandem with strategies to allow more housing near jobs (discussed more in the housing chapter), strategies to incentivize job creation in communities with limited employment opportunities can build toward a more sustainable and equitable land use pattern for the decades to come.

Negative impacts of the Bay Area's jobs-housing imbalance go beyond the traffic congestion and transit crowding typical of a pre-pandemic workday. Extended commute times negatively influence quality of life and the health of commuters, and they present a challenge to employers looking to attract and retain skilled workers. Balancing home and work centers to create live-work communities could alleviate these concerns, more equitably distribute business tax revenue between local jurisdictions, and stimulate economic activity across the region. Solving the problem requires a mix of synchronous housing and economic solutions that shift housing to areas with high concentrations of jobs and shift jobs to areas with high concentrations of housing. Plan Bay Area 2050's housing strategies encourage more housing across the board, particularly in areas of opportunity where access to jobs is high, while the following economic strategies seek to shift the location of jobs by using a mix of local land use changes and employer incentives.



Photo: Karl Nielsen



## JOBS AND HOUSING A BAY AREA BALANCING ACT

Why do so many Bay Area communities have far more jobs than homes, while others have more homes than jobs? In some places, zoning restricts development exclusively to commercial buildings or single-family homes, and other policies also can limit the amount of housing or commercial space that can be built. Another factor is the tendency of similar types of businesses to cluster near one another — most notably in Silicon Valley, where many information and technology firms have co-located since the 1970s. Proximity to transit or to highways also plays a role, as businesses and workers choose locations that will enable quicker travel.

Compounded over many decades, these forces have resulted in a significant spatial imbalance of jobs and housing throughout the Bay Area. Generally, there is more housing than jobs in Alameda, Contra Costa, Solano and Sonoma counties, while there are more jobs than housing in Marin, San Francisco, San Mateo and Santa Clara counties. This creates a number of associated problems, such as traffic congestion and transit overcrowding in major commute corridors. The imbalance also reinforces other challenges, such as the displacement of longtime residents from neighborhoods where home values and rents have spiked.

Several Plan Bay Area 2050 strategies promote a more balanced distribution of jobs and housing across the region. Economic strategies encourage greater commercial densities in targeted growth areas and incentives for employers to locate in housing-rich communities with frequent transit service. Housing strategies encourage both market-rate and affordable housing development in High-Resource Areas and Transit-Rich Areas near major employment centers. Together, these strategies promote a healthier balance of jobs and housing throughout the Bay Area's nine counties.



**MAP 3.1**  
**Jobs/Housing Balance**



**Protected Open Space and Unincorporated Areas**

**REGIONAL TRANSPORTATION**

- Major Airport
- Major Seaport

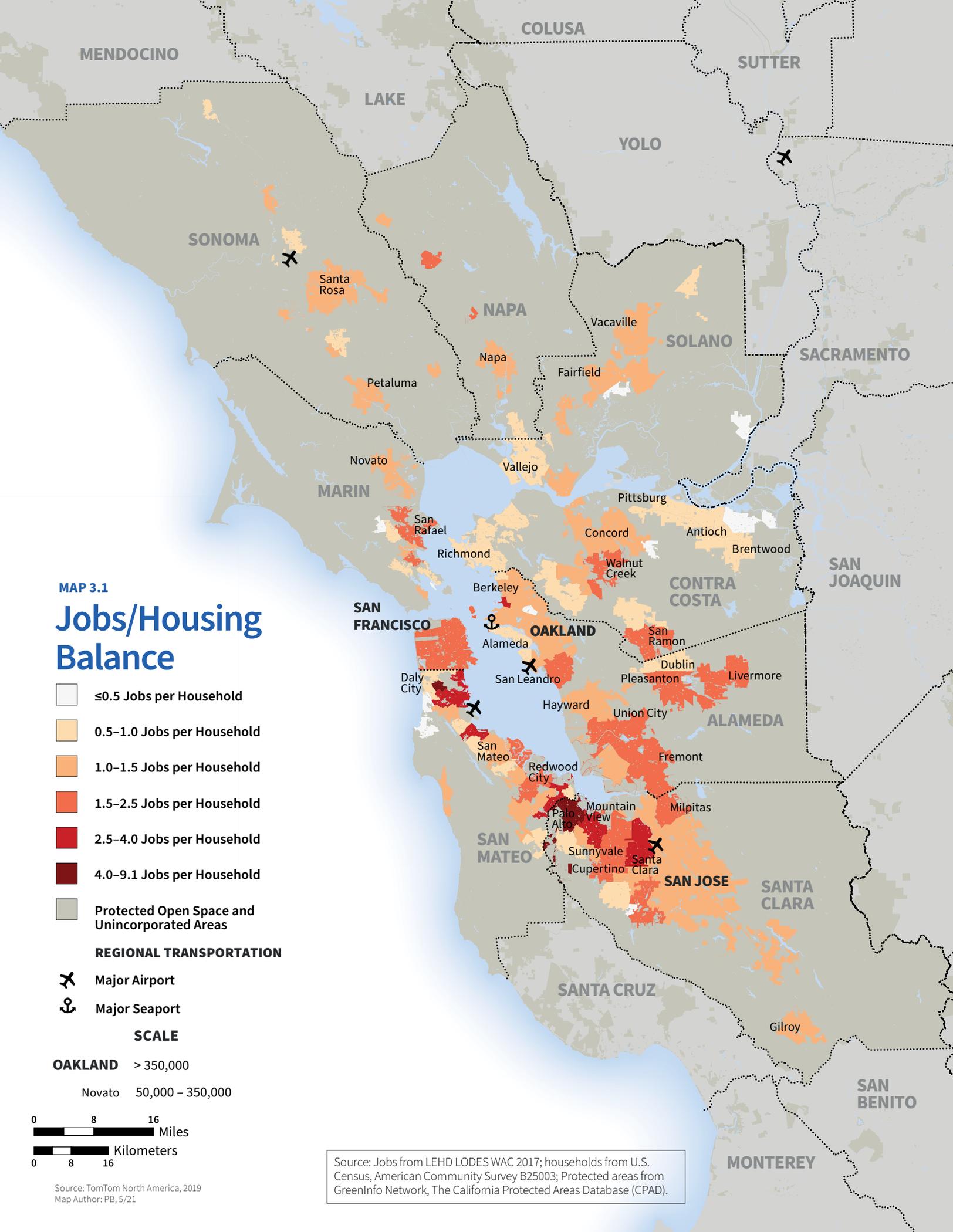
**SCALE**

**OAKLAND** > 350,000  
 Novato 50,000 – 350,000



Source: TomTom North America, 2019  
 Map Author: PB, 5/21

Source: Jobs from LEHD LODS WAC 2017; households from U.S. Census, American Community Survey B25003; Protected areas from GreenInfo Network, The California Protected Areas Database (CPAD).





First, local jurisdictions can support a more balanced distribution of job growth by **allowing greater commercial densities in Growth Geographies**. Growth Geographies like Priority Development Areas and Transit-Rich Areas are prime locations for additional commercial construction (for example, stores, offices or light-industrial spaces), given their location near areas of increased housing production or high-frequency transit. Tailoring locally determined land use regulations to allow for more job growth in strategic Growth Geographies would encourage employers to create jobs in places where employees can walk, bike or take transit to work easily. Locating jobs near transit is crucial for reducing greenhouse gas emissions and slowing climate change. Placing housing and jobs together will also allow for more complete, healthy communities — walkable places where housing, shopping, services and recreational spaces are intermingled.

Land use that allows for more commercial development alone may not be enough to attract employers to build in areas near housing or transit. A complementary strategy to **provide incentives to employers to shift jobs to housing-rich areas that are well served by transit** could further improve the balance of jobs and housing. This strategy would support the construction of offices and other workplaces in the Easy Bay; namely, along BART lines in suburban Contra Costa and Alameda counties, and along Capitol Corridor in Fairfield and Vacaville. Transit-rich North Bay communities like San Rafael and Santa Rosa are also poised to accommodate more workplaces. In turn, these new employment centers would draw in workers from the surrounding areas, shortening the distance that workers have to drive or enabling commutes by transit, walking or biking. For employees coming from elsewhere in the Bay Area, location near regional transit routes would encourage workers to commute sustainably, reducing vehicle miles traveled and contributing to climate goals.



Finally, a strategy to **retain key industrial lands by establishing Priority Production Areas** would both support a more even jobs-to-housing balance regionwide and protect industrial land from the risk of conversion to residential uses. Priority Production Areas (PPAs) are locally identified places that are prime opportunity sites for job growth in middle-wage sectors like manufacturing or logistics. While some PPAs are located in jobs-rich places like San Francisco and the South Bay, the majority are concentrated in the North Bay and East Bay, where housing is plentiful but job opportunities are more limited. PPAs provide opportunity sites to grow jobs where people already live, benefitting the region's overall jobs-to-housing imbalance, particularly for workers in middle-wage industries.

Declining employment in these industries contributes to a self-reinforcing trend that further threatens industrial lands: as more and more job losses lead to lower demand for industrial land, employment in industrial sectors contracts even more. PPA sites are important for middle-wage job creation, and they also play a critical role in the everyday operations of the region, providing light manufacturing, prototyping, distribution and logistical services that power the information and professional service sectors. Losing functions like these to sites in the Central Valley and beyond would be a major loss to the Bay Area's innovation industry.

In addition to local land use policies that would ensure industrial uses in Priority Production Areas, targeted infrastructure improvements like building upgrades and high-speed internet would further support individual businesses and make it possible for them to stay in the Bay Area despite the potentially lower costs of competing regions. Combined with upgrades to commercial buildings for energy-efficiency, described in detail in the environment chapter, this strategy highlights the potential for co-benefits between economic development and environmental sustainability.



Photo: Karl Nielsen



Photo: Karl Nielsen

## THE NORTHERN CALIFORNIA MEGAREGION AND GOODS MOVEMENT

The Northern California megaregion includes the nine-county Bay Area, the six-county Sacramento region, San Joaquin County, and the three-county Monterey Bay region. The industry sectors that comprise the “goods movement sector” across this 19-county area support nearly one-third of related industries in the Bay Area. Industries in the goods movement sector are a key component of the region’s economic strategy for increasing access to living-wage jobs that have low educational barriers to entry. The goods movement sector is growing, with today’s nearly \$1 trillion in Northern California freight flows projected to double by 2040.<sup>5</sup>

Approximately 69% of freight-dependent goods movement sector employment in the Northern California megaregion is concentrated within the Bay Area. Dominant freight-dependent goods movement industries include agriculture, construction, manufacturing, wholesale trade and retail trade. Together, these industries employ roughly 1.5 million people in the megaregion, 28% of whom work in manufacturing.<sup>6</sup>

The megaregion serves as a domestic trade gateway to other regions in California and the rest of the U.S., and it is dependent on goods movement to provide consumer products, food and parcels. Although California has the fifth largest global economy, continued growth in global trade and the megaregion’s population has stressed the existing transportation system. Plan Bay Area 2050’s transportation strategies, described in the next chapter, help to address these transportation challenges.

The exponential growth in e-commerce has also transformed industrial land and the real estate market for warehouse and distribution centers. Strategic investments are needed in freight infrastructure to support supply-chain efficiencies that allow the megaregion to maintain its economic competitiveness, and better economic coordination is needed to grow middle-wage jobs. Without sufficient investment in industrial lands, skills development programs and training opportunities, the Bay Area could miss out on opportunities to grow more middle-wage jobs for current and future residents.

5 MTC. (2019, June). *Northern California Megaregion Goods Movement Study*. [https://mtc.ca.gov/sites/default/files/Northern\\_California\\_Megaregion\\_Goods\\_Movement\\_Study.pdf](https://mtc.ca.gov/sites/default/files/Northern_California_Megaregion_Goods_Movement_Study.pdf)

6 Ibid.



Photo: Noah Berger

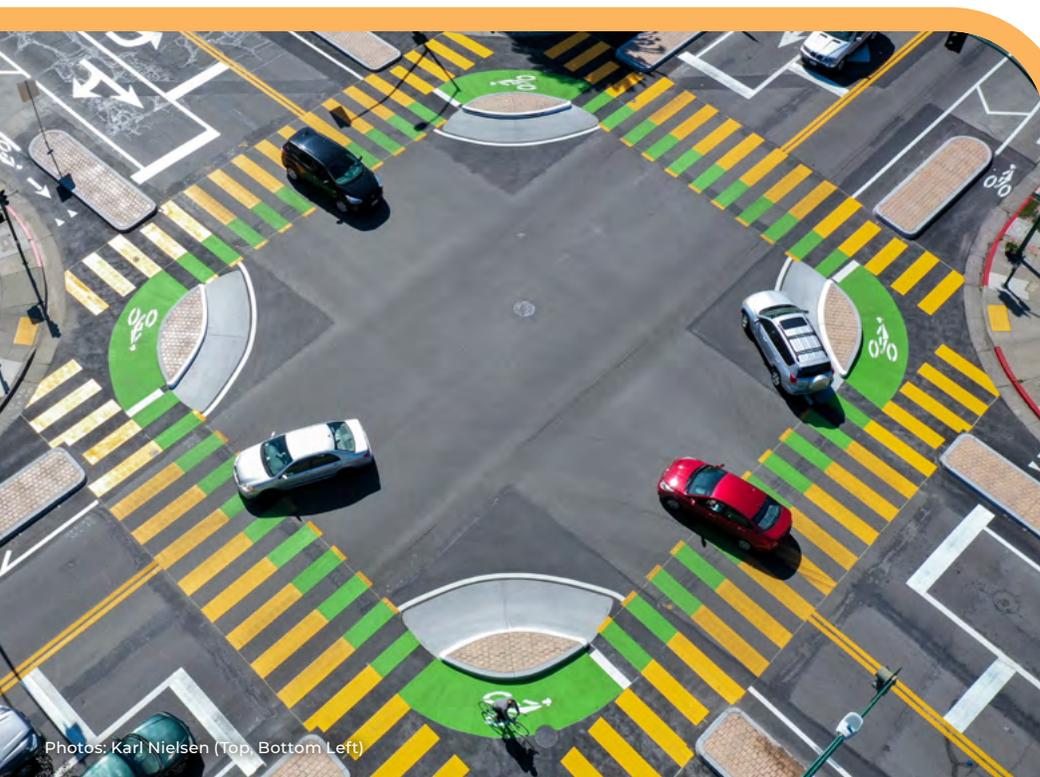
## ECONOMIC STRATEGIES Funding and Implementation

Together, Plan Bay Area 2050’s six economic strategies advance the Bay Area toward a more equitable future by improving economic mobility where most needed and by shifting the location of jobs throughout the region. Through advocacy, legislation, initiatives, planning and research over the next 30 years, MTC and ABAG can work with partners to secure a \$234 billion investment in the Bay Area’s future economy, ensuring that everyone — and especially those historically marginalized and currently underserved — can afford to both live and work where they desire.

 <b>Economic Strategies — Cost : \$234 Billion</b>		
<b>Improve Economic Mobility</b>	<b>EC1. Implement a statewide universal basic income.</b> Provide an average \$500 per month payment to all Bay Area households to improve family stability, promote economic mobility and increase consumer spending.	<b>\$205 BILLION</b>
	<b>EC2. Expand job training and incubator programs.</b> Fund assistance programs for establishing new businesses, as well as job training programs, primarily in historically disinvested communities.	<b>\$5 BILLION</b>
	<b>EC3. Invest in high-speed internet in underserved low-income communities.</b> Provide direct subsidies and construct public infrastructure to ensure all communities have affordable access to high-speed internet.	<b>\$10 BILLION</b>
<b>Shift the Location of Jobs</b>	<b>EC4. Allow greater commercial densities in Growth Geographies.</b> Allow greater densities for new commercial development in select Priority Development Areas and Transit-Rich Areas to encourage more jobs to locate near public transit.	<b>N/A</b>
	<b>EC5. Provide incentives to employers to shift jobs to housing-rich areas well served by transit.</b> Provide subsidies to encourage employers to relocate offices to housing-rich areas near regional rail stations.	<b>\$10 BILLION</b>
	<b>EC6. Retain and invest in key industrial lands.</b> Implement local land use policies to protect key industrial lands, identified as Priority Production Areas, while funding key infrastructure improvements in these areas.	<b>\$4 BILLION</b>



## 4 | Transportation





## A LONG-RANGE VISION FOR TRANSPORTATION

The network of roads and transit routes crisscrossing the Bay Area makes it possible for residents and visitors to take millions of trips every day, whether commuting to work or school, shopping at local businesses, or meeting up with family and friends.

Even more importantly, the transportation choices available to a person or a family either expand or limit their options for stable housing and employment, quality healthcare and recreation. There is also a critical nexus between transportation and climate change, with the transportation sector currently producing over 40% of California's greenhouse gas (GHG) emissions.<sup>1</sup>

Looking out to 2050, transportation investments and policies will be central components of the region's future vitality, building toward a well-connected, safe and multimodal regional transportation network. Compared to today, the transportation system will carry millions more passengers on its trains, ferries, buses and roads, but more people may telecommute as well. Strategies across the areas of transportation, housing, the economy and the environment will need to work in unison to reduce GHG emissions and meet California's ambitious climate goals while also increasing access to housing and job opportunities for all Bay Area residents.



Photo: Noah Berger

1 California Air Resources Board. 2000-2018 GHG Inventory (2020 Edition). <https://ww2.arb.ca.gov/ghg-inventory-data>



Photo: Karl Nielsen

## ADVANCING EQUITY THROUGH TRANSPORTATION

An equitable transportation system is one that is safe, affordable and reliable in meeting the needs of all residents, but especially those with the fewest options. Safety ensures that no one is discouraged from making a trip out of fear for their well-being, whether on transit, in a personal vehicle or simply walking. Equity also means thoughtful consideration of who benefits from a transportation investment when prioritizing projects. In the short term, Plan Bay Area 2050 encourages investment in projects used primarily by people with lower incomes, like more frequent local bus service.

An equitable transportation system is also one that does not exclude riders through high fares. Quality service should be affordable and accessible. Plan Bay Area 2050 calls for reform to transit fares regionwide that would lower fare costs across the board, particularly for riders that use multiple transportation systems, and serve those most in need by offering income-based fare discounts.

## Strategies for Sustainable Connections to Opportunity

Plan Bay Area 2050 envisions a transportation system that, above all, prioritizes improved access to opportunity for all Bay Area residents. Strategies focus on meeting the needs of historically marginalized communities, ranging from more frequent bus service to safety-enhancing improvements for pedestrians and cyclists. Bold strategies that go beyond prior regional planning efforts to reduce climate emissions by higher margins and advance equity at the same time can demonstrate that climate and equity goals go hand-in-hand. The plan's transportation strategies fall into three themes:

- 1. Maintain and optimize the existing transportation system:** First and foremost, the plan ensures that our existing system of transit routes, roads and bridges will be maintained, laying a strong foundation for further investments and policies. Strategies include operating the existing system at restored 2019 levels, creating a seamless transit experience with reformed fare payments, addressing near-term highway bottlenecks, implementing road pricing on select corridors for long-term congestion relief, funding community-led transportation investments in Equity Priority Communities, and supporting ongoing regional programs and local priorities.
- 2. Create healthy and safe streets:** On top of this optimized system, roads would be made safer for all drivers, cyclists and pedestrians through context-specific speed limit reductions and a network of protected bike lanes and trails designed for people of all ages. Strategies include building a Complete Streets network and advancing a Vision Zero road safety policy to protect all road users.
- 3. Build a next-generation transit network:** Finally, a slate of investments in transit steers the Bay Area toward a 21st century system that meets the needs of a growing population and delivers fast, frequent and reliable service throughout the region. Strategies invest in improving the frequency and reliability of local transit, selectively extend regional rail and increase frequencies to address crowding, and build out the express lanes network with coordinated express bus service.



## AUTONOMOUS VEHICLES

While autonomous vehicles (AVs), otherwise known as self-driving cars, may seem like a far-off technology, most new vehicles sold today already operate with some level of automation, including automatic braking and lane-drifting correction. In San Francisco, the California Department of Motor Vehicles has authorized autonomous vehicles to roam the streets without a backup driver at the wheel, testing out this emerging technology.<sup>2</sup> Greater degrees of automation and increased adoption of AVs could greatly shape transportation's future in the Bay Area. More automation may make longer-distance commutes more feasible, but it may also reduce the attractiveness of more sustainable travel modes like transit or biking while increasing congestion and GHG emissions. Poised to launch another revolution in transportation, autonomous vehicles are one of the largest sources of uncertainty in planning for the region's future.

As home to much of the technological innovation driving the shift to AVs, the Bay Area is uniquely situated to take advantage of the opportunities and consider the risks AVs present. Many governmental and non-governmental organizations in the Bay Area are planning for a world with AVs: the City of San Jose has advanced a series of pilot programs to develop infrastructure and collect data; the GoMentum Station in Concord is a robust AV testing facility with road networks, tunnels and railroad crossings that simulate real-world conditions; and the Bishop Ranch Office Park in San Ramon is piloting AV shuttles to transport workers around the office park, to name a few.

As it leads worldwide on AV innovation, the Bay Area has an opportunity to shape the future with thoughtful, equitable AV policies and best practices. The San Francisco Municipal Transportation Agency (SFMTA) and the San Francisco County Transportation Authority (SFCTA) recently developed their Guiding Principles for Emerging Mobility,<sup>3</sup> a policy framework to evaluate new mobility decision-making; the Santa Clara Valley Transportation Authority (VTA) is also developing an Automated Driving System Draft Policy; and the California Public Utilities Commission is working on a proposed framework for regulating two AV pilot programs. Regional leadership on this issue could make an uncertain future more equitable, sensible and understandable.

Plan Bay Area 2050 recognizes that AVs could fundamentally change the way transportation networks are designed and operated, and shape the future of public transit, climate emissions, labor markets and access to opportunity. These concerns have been incorporated into planning and analysis work from the start: through the Horizon effort, MTC and ABAG released an *Autonomous Vehicles Perspective Paper*<sup>4</sup> that assessed potential opportunities and challenges and recommended strategies that would support the Plan Bay Area 2050 vision in an AV-enabled future. All modeling work for the plan includes a fairly conservative assumption that 5% of vehicles will be autonomous by 2035, escalating to 20% by 2050.

2 Korosec, K. (2020, December 9). Cruise begins driverless testing in San Francisco. *TechCrunch*. <https://techcrunch.com/2020/12/09/cruise-begins-driveless-testing-in-san-francisco/>

3 SFMTA (© 2021). Emerging Mobility: 10 Guiding Principles. <https://www.sfcta.org/policies/emerging-mobility#panelguiding-principles>

4 MTC, ABAG and ARUP. (2018, June). *Autonomous Vehicles Perspective Paper*. [https://mtc.ca.gov/sites/default/files/2018-06-25\\_Autonomous\\_Vehicles\\_Perspective\\_Paper.pdf](https://mtc.ca.gov/sites/default/files/2018-06-25_Autonomous_Vehicles_Perspective_Paper.pdf)

## STRATEGIES Maintain and Optimize the Existing System

As the Bay Area emerges from COVID 19-related restrictions, there is a unique opportunity to rebuild existing transportation systems to serve more people and operate more cost-effectively. All of Plan Bay Area 2050's transportation strategies build upon a strong foundation of existing infrastructure and services. A future transit system that is maintained in good working order, where transit schedules have been restored to their pre-COVID service levels and transit fares are simplified across operators, would improve reliability and reduce costs for all passengers under the plan's vision. New options for planning and paying for a trip would be easily accessible and include all modes. Equity Priority Communities, which have historically been denied a seat at the table, would have access to significant funding to advance their priorities. A handful of road-widening projects would provide short- to medium-term congestion relief, before a new per-mile fee is applied on select highways with transit alternatives. This new approach to congestion management could raise billions of dollars for new transportation investments, leading the system to operate more efficiently and equitably than ever before.

Around two-thirds of the transportation funding in Plan Bay Area 2050 is earmarked for **restoring, operating and maintaining the existing system**, in line with MTC's long-held pledge to "Fix it First." This approach includes reserving funds to pay for ongoing replacement of aging buses and other transit assets, regular paving of local streets and freeways, and a host of other necessary investments to ensure that the region's transportation system continues to provide reliable service. Furthermore, with transit systems forced to cut routes or reduce frequencies during the COVID-19 pandemic, Plan Bay Area 2050 charts the course for returning transit service to the robust levels that the Bay Area relied on before the pandemic.

Beyond investing in the existing system, Plan Bay Area 2050 aims to **enable a seamless mobility experience** that will help travelers navigate the many options available to them and make more sustainable choices. To start, a free modern mobile app that assists travelers with trip planning — including navigating across transit schedules or understanding parking or shared mobility options at each end of the trip — would help to gather information from disparate sources in one place. Once a trip is in progress, low-cost measures like schedule coordination between operators to reduce wait times at transfer locations, as well as wayfinding signage at key transfer hubs, would facilitate a smoother experience. Complementary investments in bike parking at transit stations and reforms to transit fares for multi-operator trips, described later in this chapter, further advance a seamless mobility experience under the plan's vision.

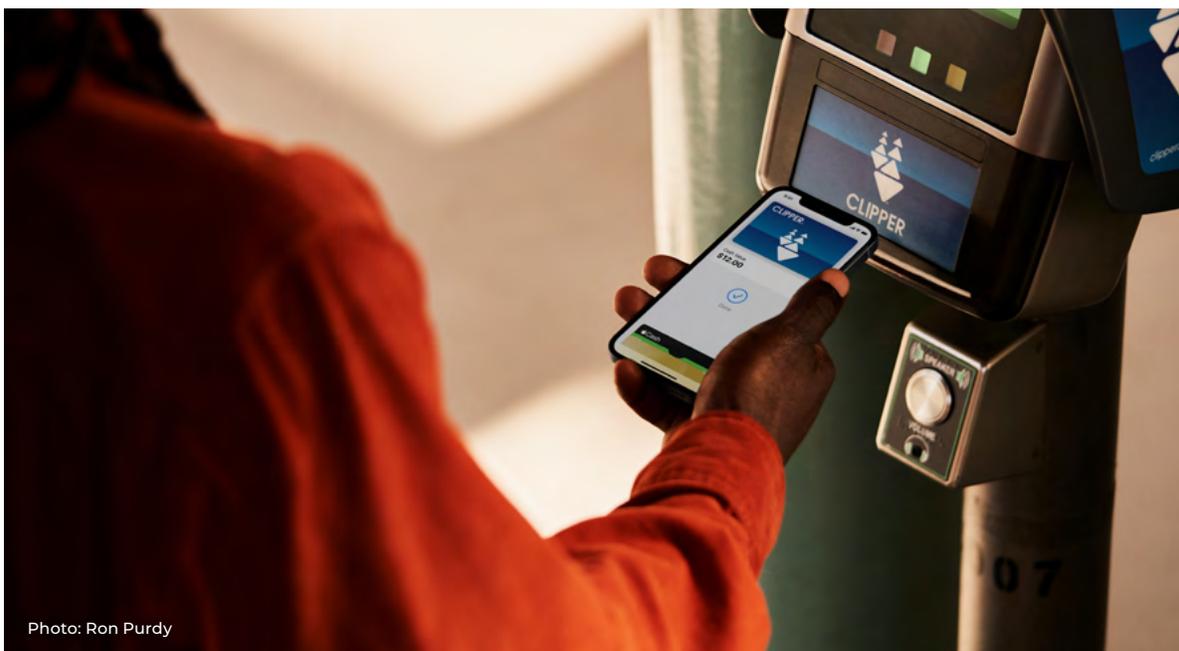


Photo: Ron Purdy



Photo: Karl Nielsen

## CLIPPER® START<sup>SM</sup> WORKING TOWARD EQUITABLE REGIONAL STANDARDS

Cost should not be a barrier to riding transit. MTC, together with transit operators, social service agencies and community-based organizations, launched Clipper® START<sup>SM</sup>, a fare discount pilot program for adults in the Bay Area whose annual earnings are below 200% of the federal poverty level. Introduced in summer 2020, in the midst of the COVID-19 pandemic, the \$11 million pilot program currently offers fare discounts ranging from 20% to 50%, depending on the operator, with more than 20 participating transit providers. The program moves the Bay Area toward a more consistent regional standard for fare discounts, and it supports the vision of MTC and ABAG's Equity Platform by building upon efforts to make transit more affordable and expand transportation choices for residents with low incomes.

Another barrier to making transit within the Bay Area truly seamless and easy to navigate is the region's currently fractured fare structure, wherein dozens of transit operators each has its own set of fares and transfer discounts. Paired with the schedule coordination and other capital investments described previously, a strategy to **reform regional fare policy** could simplify the experience of taking transit. Standardizing transit fares across the region's transit operators, with one local fare across all operators and free transfers between local routes, could greatly reduce fare costs and simplify decisions of how to get around. For regional trips, implementing a uniform distance-based fare that prices a trip based on mileage, rather than the number of independent boardings, would reduce costs and be a critical step toward creating a more affordable transportation system.

While these reforms support transit riders of all incomes, targeted discounts applied uniformly for riders with low incomes, as well as young riders and people with disabilities, would make further progress toward Plan Bay Area 2050's affordability goals. MTC's analysis suggests that fare integration alone would be roughly revenue-neutral to operators, because it incentivizes an increase in overall transit usage, which offsets lower individual fares. However, income-based discounts, including a 50% discount for households with low incomes, would involve substantial fare losses. Funding would be needed to ensure that transit operators do not experience an overall loss in operating revenue that could disrupt service.

Strategies that strengthen the transit network and support individual behavior change away from single-occupancy driving are critical to Plan Bay Area 2050's approach to tackling traffic congestion. However, these strategies often require time to take hold. In the near term, Plan Bay Area 2050 includes a strategy to **address highway bottlenecks and improve interchanges** through a limited selection of widenings or road extensions to serve new developments. These road projects may help reduce congestion temporarily, though they will likely increase vehicle miles traveled in the long-term, with any congestion relief benefits disappearing by the year 2050. As such, Plan Bay Area 2050 also includes a suite of long-term solutions to the region's congestion challenges, including road pricing, transit-supportive land use and transit improvements, that have been shown to succeed across a variety of future conditions.

MAP 4.1

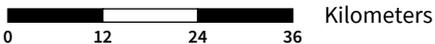
# Highway and Pricing Investments

- HIGHWAY WIDENING**
  - New Carpool Lane
  - New General Purpose Lane
  - Major Interchange Improvement
- EXPRESS LANES**
  - Existing/Under Construction
  - Existing Lane Conversion
  - New Single Lane
  - New Dual Lane
- PRICING**
  - ▭ Existing Toll Bridge Corridor
  - ▭ New BATA Toll Corridor
  - ▭ Per-Mile Tolling (Plan Bay Area 2050 Strategy)
  - Congestion Pricing Zone
- REGIONAL TRANSPORTATION**
  - ✈ Major Airport
  - ⚓ Major Seaport
  - Highway and Interstate
  - Major Road

**SCALE**

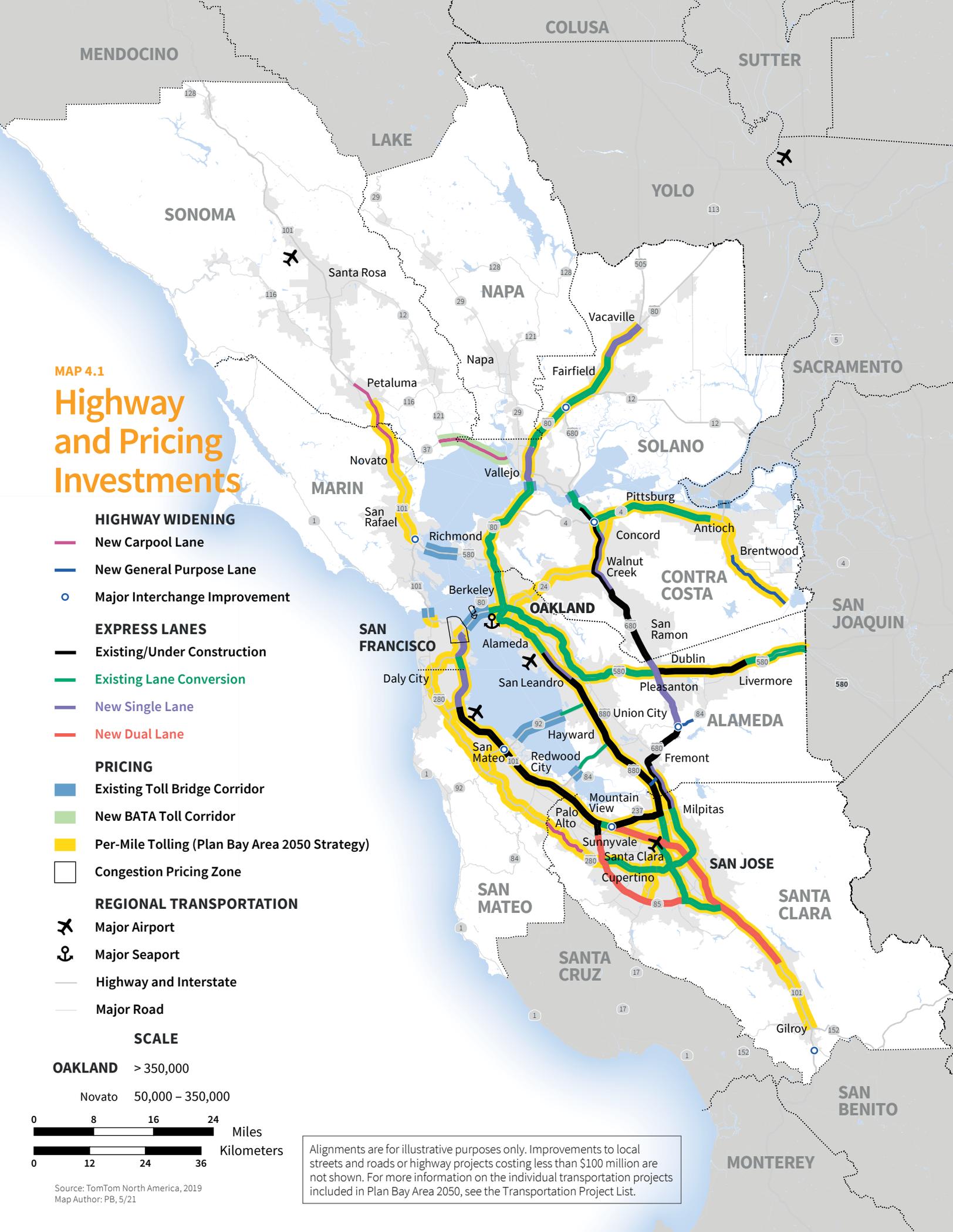
**OAKLAND** > 350,000

Novato 50,000 – 350,000



Source: TomTom North America, 2019  
Map Author: PB, 5/21

Alignments are for illustrative purposes only. Improvements to local streets and roads or highway projects costing less than \$100 million are not shown. For more information on the individual transportation projects included in Plan Bay Area 2050, see the Transportation Project List.



One of the most impactful long-term approaches to congestion is road pricing. Road tolls are a way to reflect the true cost of driving and motivate drivers to consider more sustainable options. Plan Bay Area 2050 proposes **implementing per-mile tolling on select congested freeways where parallel transit options exist** as a bold action to curb traffic congestion through 2050 and beyond, while also generating new revenues for reinvestment in sustainable alternatives to driving. This strategy, applied on a limited number of freeway corridors throughout the region, would charge drivers a toll based on the number of miles driven, the number of passengers, and the time of day, with lower tolls charged to carpoolers and those traveling outside of rush hour periods.

To support equity goals and reduce this pricing measure's potentially regressive impact, households earning below the regional median income would receive a 50% discount. Importantly, revenue from tolling would be directly reinvested in improving transit alternatives, such as funding investments like express bus service, as well as in projects like electric vehicle charging infrastructure. An estimated \$25 billion in funding for transportation projects could be generated between 2030 and 2050, helping to fund transit investments for the latter years of Plan Bay Area 2050.

Historically and even today, decisions on which projects get implemented are largely top-down, with proposals and project selection coordinated by cities, counties or transit operators. These projects may not always align with the

priorities of those who have faced barriers to participating in such decision-making — namely, communities of color or those with lower incomes. Addressing this misalignment, the plan calls to **support community-led transportation enhancements in Equity Priority Communities**, which will require public agencies to dedicate funding specifically for these projects and build trusting, collaborative relationships with these communities. MTC has several existing programs that focus on facilitating grassroots planning and funding projects that benefit Equity Priority Communities, including the Community-Based Transportation Planning Program, which funds local planning efforts in Equity Priority Communities, and Lifeline, an MTC funding program dedicated to improving transportation options for people with low incomes. Plan Bay Area 2050 reserves billions of dollars for this strategy, laying the groundwork for a future where systemically underserved communities are empowered to prioritize improvements to best meet their needs.

Finally, the plan includes a strategy to **advance other regional programs and local priorities**, enabling uninterrupted delivery of services that Bay Area residents rely on every day. Regionwide, services like motorist aid and incident management will continue to keep travelers safe, and real-time information will be available through 511®. A host of locally identified priorities complement these regional initiatives, providing small-scale but meaningful improvements, including intersection upgrades, local emissions reduction programs, and city- or county-led planning studies.

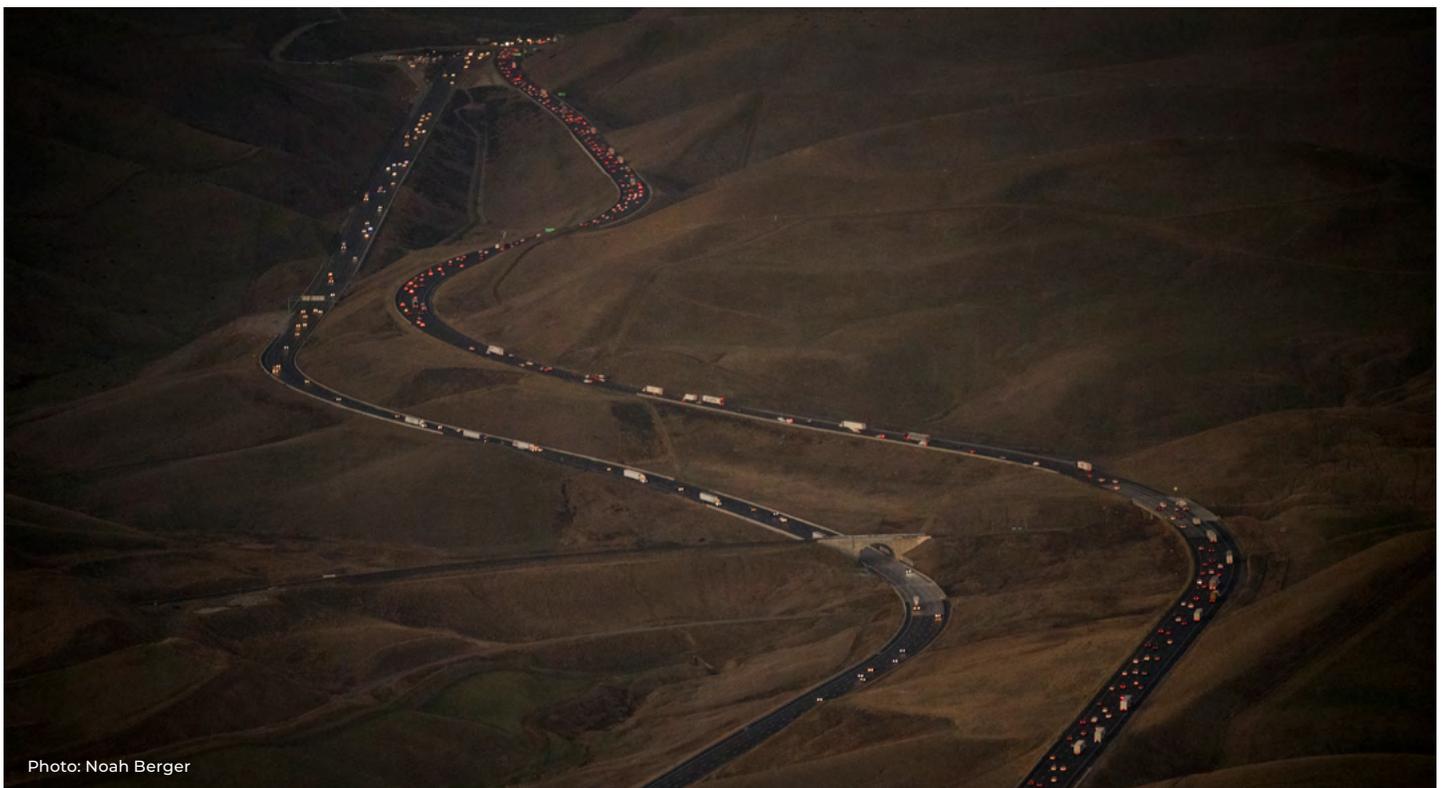


Photo: Noah Berger



Photo: Karl Nielsen

## MTC PARTICIPATORY BUDGETING PILOT

Shared decision-making and community power-building, deeper civic engagement and greater alignment between community needs and funding decisions are essential to realizing Plan Bay Area 2050's equity goal. Participatory budgeting is one tool that public administrators and planners can use to lift up community members' voices and priorities, providing a democratic framework through which community residents directly decide how to spend part of a public budget.

In 2018, MTC launched a pilot program in partnership with advocacy groups and local jurisdiction officials in two Bay Area communities: San Francisco's Bayview and Vallejo. Residents, community-based organizations and government officials worked together for a year to identify key transportation challenges and potential solutions, and \$1 million in regional transportation funding was allocated to investments prioritized by the participants.

In San Francisco, participants identified safety on transit as a key concern and funded the creation of three Transit Assistant positions in their community through the SFMTA Muni Transit Assistance Program. Transit Assistants ride buses and light rail trains to provide an unarmed safety presence that can de-escalate conflicts and deter vandalism. In Vallejo, participants identified gaps at the beginning and end of transit trips as a key priority, opting to fund wayfinding signage and improvements to sidewalks and bus shelters.

The pilot's success highlights several best practices for advancing equity: defining equity as a strategic priority within funding policy; clearly outlining program structure and process; applying diversity and inclusion metrics to program evaluation; and building collaborative relationships.



## STRATEGIES Create Healthy and Safe Streets

Safety and health are on the minds of all Bay Area residents as COVID-19's impacts continue to resonate. The pandemic has revealed a renewed interest in biking and walking for commuting, health and leisure. As people spent more time in their own neighborhoods due to shelter-in-place orders, local leaders nationwide repurposed road space formerly in the exclusive domain of cars as car-free “slow streets” where people can walk and bike.<sup>5</sup> Slow streets programs and new parklets have cropped up around the Bay Area as people seek to spend quality, socially distanced time outdoors.<sup>6</sup>

Infrastructure and policy that support human-powered methods of travel like walking, biking, skateboarding or riding scooters (also known as “active transportation”) make sustainable, short trips possible. Many of these policy and infrastructure changes are attainable in the near term, and they would promote healthier, more environmentally friendly options for local trips like shopping at nearby businesses, as well as more convenient ways to access transit and avoid parking for longer-distance trips. Active transportation benefits both public health, through increased physical activity, and the environment, through zero-emissions travel.

Plan Bay Area 2050 lays the groundwork for a dramatic increase in trips that take place on foot or bike, in recognition of the numerous co-benefits that active transportation can provide. Infrastructure and policy approaches are combined to make conditions safer and more comfortable for cyclists and pedestrians of all ages. By 2050, protected bike lanes and off-street paths would be plentiful, connecting residents with commercial corridors, transit stops and community places. Vehicular speeds would be reduced, improving safety outcomes for everyone on the road and inviting more people to bike and walk safely.

A foundational element of Plan Bay Area 2050's transportation network is a strategy to **build a Complete Streets network**, a planning term popularized nationally to describe streets that meet the needs of all users, including pedestrians and bicyclists. Plan Bay Area 2050 envisions a well-connected network with 10,000 new miles of protected bike lanes and off-street paths, with particular emphases on connections to transit and investments in Equity Priority Communities. This strategy includes investments in regional walking and biking routes, such as the California Coastal Trail, the Great California Delta Trail, the Iron Horse Trail and the Bay Trail, that are critical for commuting and recreation alike. Aside from on-street infrastructure, a suite of complementary investments — including secure bike parking at transit stations, pedestrian lighting and intersection safety projects — supports a future where walking and biking are safe and comfortable choices for people of all ages.



5 Schaper, D. (2020, August 16). The Pandemic Is Changing How People Get Around. *NPR*. <https://www.npr.org/2020/08/16/902909092/the-pandemic-is-changing-how-people-get-around>

6 Rudick, R. (2020, June 9). Tracking Slow Streets in the Bay Area. *SF Streetsblog*. <https://sf.streetsblog.org/2020/06/09/tracking-slow-streets-in-the-bay-area/>



Photo: Karl Nielsen

## ACTIVE TRANSPORTATION PLAN

Historically, cities and counties have led planning efforts for active transportation infrastructure like bike lanes, off-street multi-use paths or pedestrian safety improvements. Regional agencies like MTC and ABAG have played a complementary role through efforts such as maintaining and expanding regional facilities like the Bay Trail, adopting a regional Complete Streets program, and funding certain active transportation projects. Since 2014, in partnership with the state, the region has begun to take an even more active role, awarding over \$325 million to active transportation projects through competitive Active Transportation Program grants.

MTC last released a regional plan for bicycle infrastructure in 2009. In the following years, cities and counties completed active transportation plans of their own, building out hundreds of miles of bike lanes and off-street paths. Many walking and biking trips may cross city or county boundaries, so a regional plan that coordinates the infrastructure buildout needed for these trips can help to create safe, seamless paths for the Bay Area's cyclists, pedestrians and other active travelers.

In 2020, MTC initiated work on a regional Active Transportation Plan, intended to serve as a blueprint to strategically guide active transportation policy and investments. The Active Transportation Plan,

anticipated for release in 2022, will support Plan Bay Area 2050's envisioned Complete Streets network, including the construction of 10,000 miles of new bicycle paths and lanes.

The Active Transportation Plan will also guide safety policies enacted at the local and regional levels in accordance with MTC's adopted Vision Zero policy, which fosters coordination throughout the region to eliminate traffic fatalities and serious injuries by the year 2030. This policy includes support for lower vehicular speeds and traffic calming elements described in the Plan Bay Area 2050 strategy to advance a regional Vision Zero policy.

Analysis for Horizon and Plan Bay Area 2050 found that investing in active transportation infrastructure can open up new destinations for people with low incomes at a fraction of the price of higher-cost public transit infrastructure. Equity considerations will be front and center in the regional Active Transportation Plan, including partnerships with community-based organizations to identify priorities. The Active Transportation Plan will also coordinate with ongoing planning efforts like Community-Based Transportation Plans and local active transportation planning work.





Next, a strategy to **advance a regional Vision Zero policy** complements the regional network of safe bike lanes and trails by supporting additional safety projects and lowering vehicle speeds. Vision Zero<sup>7</sup> is an internationally adopted framework that seeks to eliminate all traffic fatalities and severe injuries while increasing safe, healthy and equitable mobility for all. Prompting drivers to go more slowly is a key focus area of Vision Zero, given the strong correlation between higher speeds and higher likelihood of serious injury or fatality in the event of a collision.

Plan Bay Area 2050 advances the Bay Area toward Vision Zero through a combined emphasis on lower speeds and street design for safer travel. This includes both a policy to reduce speeds on freeways to 55 miles per hour and the introduction of context-specific speed limit reductions on local streets, with speeds capped at between 20 to 35 miles per hour on local streets.

Enforcement is a key equity consideration for this strategy, and it will require thoughtful implementation to ensure that undue burdens are not placed on communities of color. Billions of dollars are allocated to fund infrastructure investments that slow down cars without the need for in-person enforcement. Design elements like speed bumps and roundabouts on local roads naturally reduce speeds and improve pedestrian comfort levels. On freeways where options for design interventions are more limited, automated speed enforcement, while not yet permitted in California, presents a promising path forward for enforcement without bias.

## EXPLORING AUTOMATED SPEED ENFORCEMENT TO ADDRESS BIAS

Black drivers across the country are up to five times more likely as white drivers to be stopped and searched while driving,<sup>8</sup> yet despite these racial inequities in traffic stops, speed enforcement remains a crucial tool in saving lives. Automating traffic enforcement using safety cameras may be one tool to reduce opportunities of bias in officer-initiated traffic stops. Enforcement by automated speed cameras in New York City has changed driver behavior significantly enough to reduce speeding by up to 60%. The National Highway Traffic Safety Administration reports that fixed speed cameras reduce injury crashes by 20% to 25%, and mobile speed cameras reduce injury collisions by 21% to 51%.

Although over 100 communities across the United States have automated speed enforcement programs, this tool is not currently authorized in California. A change to state law is required before this technology is available to local jurisdictions. In 2017, California came close to allowing automated speed enforcement with Senate Bill 342 (Chiu), which would have enabled San Francisco and San Jose to begin pilot programs, though the bill ultimately did not pass. In February 2021, Assembly Member Chiu introduced Assembly Bill 550, another attempt to allow automated speed enforcement with a greater emphasis on privacy than SB 342. MTC has joined forces with San Francisco, Oakland, San Jose and a wide spectrum of advocacy organizations to advocate for the option to employ automated speed enforcement.

8 Pierson, E. et al. (2020). A large-scale analysis of racial disparities in police stops across the United States. *Nature Human Behaviour*, 4(7), 736-745. doi:10.1038/s41562-020-0858-1. <https://www.nature.com/articles/s41562-020-0858-1>

7 The Vision Zero Network. (© 2021). What is the Vision Zero Network? <https://visionzeronet.org/about/vision-zero-network/>

## STRATEGIES Build a Next-Generation Transit Network

Prior to the pandemic, the Bay Area’s transit system faced crowding on its busiest routes, long wait times for transfers and missing links with no transit service, among other challenges. While some major projects have been completed since the last regional long-range plan update in 2017 — for example, Bay Area Rapid Transit (BART) extensions to Antioch and Berryessa and bus improvements like Alameda County Transit (AC Transit)'s Tempo bus rapid transit line — further investments will be required to meet the Bay Area’s needs as its population grows and transit ridership returns to pre-pandemic levels.

Coordinated investments in the region’s rail network would provide an expanded and improved foundation for transit, with more frequent and reliable feeder bus and light rail service providing local connections. Express bus service would play a larger role in helping people move throughout the Bay Area, supported by a contiguous network of express lanes that allow carpoolers and buses to bypass congestion. Transit fare reforms described earlier would reduce the cost of transit for riders with low incomes, lowering the cost barrier and allowing all residents to benefit from these improvements.

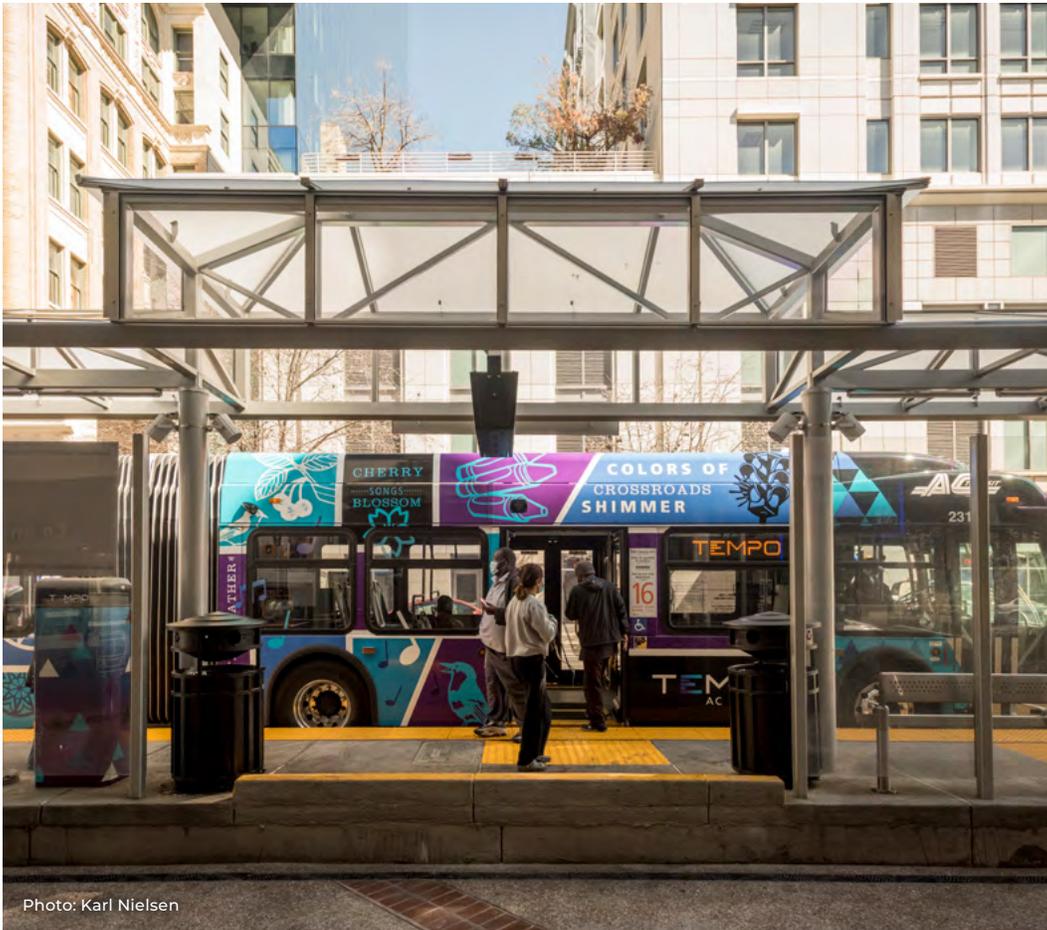




Photo: Karl Nielsen

## A REGIONAL APPROACH TO RECOVERY PLANNING TRANSIT'S REBOUND FOLLOWING COVID-19

The COVID-19 pandemic brought unprecedented challenges to Bay Area transit operations. Almost overnight, transit operators were forced to drastically alter service as they were thrust into the spotlight of public safety concerns. As transit operators grappled with serious funding shortfalls, changing safety guidelines and existential questions about the future of travel, MTC and ABAG took action to coordinate at a regional scale.

In May 2020, MTC convened a task force to help the region's public transportation operators and decision-makers work together during the pandemic. **The Blue Ribbon Transit Recovery Task Force** is comprised of transit operators, local elected officials, representatives from the State Senate and State Assembly, members of the California State Transportation Agency, business and labor groups, and transit and social justice advocates.

Through the task force process, Bay Area transit agencies developed *Riding Together: Bay Area Healthy Transit Plan* to protect the health and safety of transit riders and employees. The plan also aimed to build residents' confidence in public transit as the region emerges from the pandemic. Many transit agencies jointly developed the plan to standardize their health and safety commitments and outline their shared expectations for both employees and customers.

Another primary function of the task force was to inform the distribution of federal emergency funds for public transit included in the Coronavirus Aid, Relief, and Economic Security Act of 2020. As of May 2021, MTC has allocated over \$2 billion of federal emergency funds to Bay Area transit operators, enabling a baseline level of transit service provision throughout the past year. Another \$1.7 billion in federal funding is expected to support the region's transit operations into 2021 and beyond. As additional funding comes in from sources like the American Rescue Plan and other federal recovery efforts, the task force will provide a venue for regional prioritization and collaboration.

Looking ahead, MTC, with assistance from the task force, will continue to oversee the return of transit service hours to their pre-pandemic levels, with an emphasis on improving transit service to meet Bay Area residents' needs. As this near-term work continues between transit operators and their partners on the task force, Plan Bay Area 2050 provides a complementary long-term plan for transportation in the region. On top of restoring transit service to pre-pandemic levels, the transportation strategies infuse billions of dollars in investments into new rail lines and express bus service, faster and more reliable local transit, an expanded network of bike lanes and paths and optimized highways and local roads to meet the needs of Bay Area residents into 2050 and beyond.





The first step in creating a next-generation transit network in Plan Bay Area 2050 is to **enhance the frequency, reliability and capacity of existing local transit systems.** Bus and light rail systems provide important connections for trips around town or as start or end points to longer trips around the region. Improvements that make these connections more convenient build toward a more connected future. Frequency boosts can reduce wait times and crowding; strategic extensions can serve new jobs and housing centers; and infrastructure upgrades can make transit faster and more reliable for all.

Investments in local transit, including more frequent service or “quick build” improvements like bus-only lanes or transit signal priority, could be implemented relatively quickly to make a major impact in a short amount of time. Furthermore, projects improving local transit service tend to benefit transit riders with lower incomes, translating investments to equitable outcomes.<sup>9</sup> Most investments within this strategy are prioritized for near-term implementation, allowing riders with lower incomes to reap the earliest benefits.

To strengthen the quality of baseline service, frequency boosts on bus and light rail service throughout the Bay Area would be implemented. This includes improvements on urban systems like AC Transit, Muni and VTA, as well as on suburban systems like Napa VINE, County Connection in Contra Costa County, and Sonoma County Transit. More frequent service will allow passengers to enjoy shorter wait times, more convenient service and less crowding as ridership recovers in a post-pandemic world.

Beyond frequency boosts, a range of infrastructure investments would improve speed and reliability for local bus and light rail passengers under Plan Bay Area 2050’s local transit strategy. Several of the region’s highest-ridership bus corridors would be transformed through bus rapid transit investments, including San Francisco’s Geary Boulevard, San Pablo Avenue in the East Bay, and El Camino Real in San Mateo and Santa Clara counties. In Santa Clara County, segments of downtown San Jose’s street-level light rail would be moved underground or elevated to bypass traffic congestion. Throughout the Bay Area, transit signal priority investments would help buses coast through green lights at a low cost.

9 MTC and ABAG. (2020, January). *Futures Final Report: Resilient and Equitable Strategies for the Bay Area’s Future*. [https://mtc.ca.gov/sites/default/files/Horz\\_Futures\\_Report.web\\_.pdf](https://mtc.ca.gov/sites/default/files/Horz_Futures_Report.web_.pdf)



Photo: Noah Berger

Rounding out this strategy, new local transit lines are envisioned to support areas forecasted for substantial new housing growth. This includes extensions of VTA light rail to Eastridge Mall and to Cupertino along Stevens Creek Boulevard, as well as new bus routes serving development in the city of Alameda and Hunters Point and Candlestick Point in San Francisco.

Plan Bay Area 2050 also envisions an **expanded and modernized regional rail network**, with a set of investments that puts the Bay Area on the path toward a world-class rail system. The Bay Area’s rail systems — Muni Metro, BART, Caltrain, Capitol Corridor, the Altamont Corridor Express and Sonoma-Marín Area Rail Transit — are the backbone of mobility in the region, carrying hundreds of thousands of passengers each day to their destinations. The anchor of a plan for rail in the Bay Area, looking out over the next three decades, is Link21, a new program to transform Northern California’s passenger rail network with a new transbay crossing between Oakland and San Francisco at its core. This new crossing will provide much-needed capacity in the heart of the Bay Area and beyond.

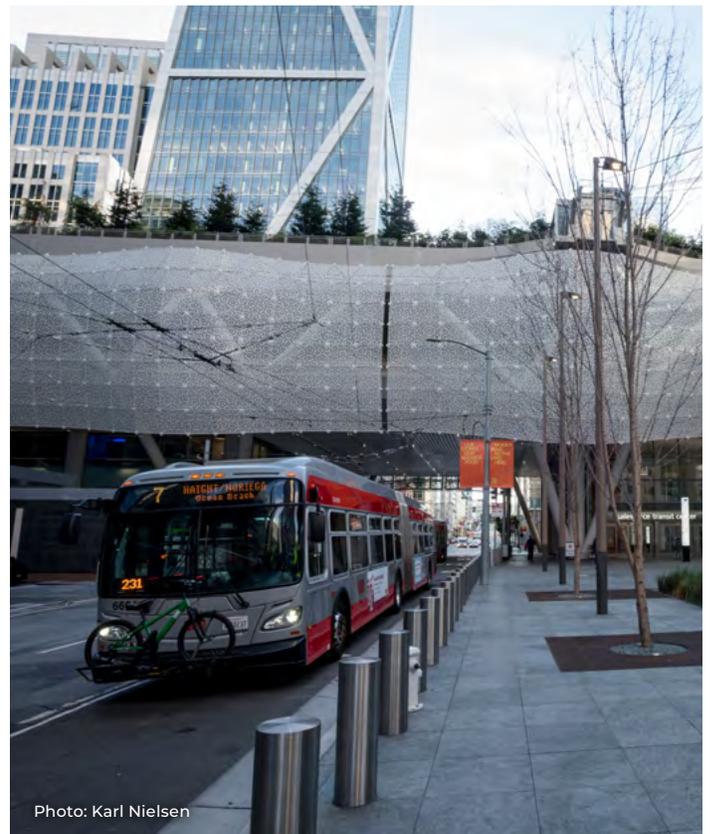


Photo: Karl Nielsen



Photo: Noah Berger

Various studies contributed to the conclusion that a new transbay crossing is needed, including the Bay Area Core Capacity Transit Study, a joint effort of BART, Muni, AC Transit, Caltrain, the Water Emergency Transportation Authority (WETA), SFCTA and MTC. A 2019 Horizon perspective paper titled *Crossings* also explored the relative merits of seven different potential transbay crossings, finding that a new rail crossing served by BART, conventional rail, or both held substantial benefits for the Bay Area when compared to a road crossing or no change at all.

Boosting the frequencies of the Bay Area's current rail systems can also provide better service for riders throughout the region, and a limited set of rail extensions or new rail routes can fill in gaps in the network. These extensions include BART's extension to downtown San Jose, the Caltrain downtown San Francisco extension, and the return of rapid transit service on the Dumbarton rail bridge.

Plan Bay Area 2050 also responds to the challenge of in-commuters, or people who live outside of the nine-county

Bay Area but commute into the region to work. Interregional commuters, many of whom commute via car due to a lack of competitive transit alternatives, see improved options under Plan Bay Area 2050's strategies. For those commuting into the Bay Area from the south, the plan includes investments that lay the foundation for California High-Speed Rail in the region. Commuters living east of the Bay Area in San Joaquin County can also expect to see a new rail connection through Valley Link, a commuter rail line that will connect the Dublin/Pleasanton BART station with destinations in eastern Alameda County, into the Central Valley. These new interregional services are integrated into the regional transit system via schedule coordination, allowing for easy transfers with minimal wait times.

Ferries present another option for shoring up transbay capacity in the near term at a smaller scale. Plan Bay Area 2050 invests in new ferry service and in increases in frequency to existing service to complement investments in regional transit. Such investments include new ferry service to Berkeley, Redwood City, Treasure Island and Mission Bay, alongside frequency boosts across the Golden Gate and WETA systems.



## CALIFORNIA HIGH-SPEED RAIL CONNECTING TO THE MEGAREGION — AND BEYOND

When it comes to transportation megaprojects, there is no project bigger than California High-Speed Rail, designed to connect the Bay Area, Central Valley and Los Angeles in under three hours. Approved by voters in 2008, construction is well underway in the Central Valley, with new viaducts being built to enable travel at more than 200 miles per hour through the heart of the Golden State. When completed, the project will allow Bay Area residents, commuters and visitors to reach destinations throughout California much more quickly, while avoiding congested highways and busy airports. Importantly, high-speed rail also aligns with state and regional climate goals, providing a lower-emissions alternative to driving or flying within the corridor.

With a total cost exceeding \$80 billion, high-speed rail (HSR) will create new opportunities for communities across the Bay Area, but none more so than the four cities with HSR stations — San Francisco, Millbrae, San Jose and Gilroy. While each community has its own unique character and context, these hubs will provide the opportunity for affordable, seamless connections and easy access to destinations not just in the region but in the megaregion and beyond. Each HSR station area is identified as a Plan Bay Area 2050 Growth Geography — a focus point for future jobs and housing.

Certainly, not every Bay Area resident will be able to live within walking or biking distance of these four HSR stations. Existing regional rail systems like Caltrain, BART, VTA and Muni will provide connectivity at HSR rail hubs — creating a supportive “rail skeleton” for a next-generation transit network. Infrastructure projects like Caltrain Modernization, slated for completion by 2023, will also improve speeds and service frequencies for Bay Area residents to more quickly connect to planned HSR stations. In the decades ahead, Plan Bay Area 2050 identifies a suite of dual-purpose improvements to provide better access to HSR. In the region’s core, this includes the extension of Caltrain/HSR to San Francisco’s Salesforce Transit Center, the modernization

of San Jose’s Diridon Station, and selective grade separations. Further south, grade separations, electrification and modernization investments throughout the Caltrain/HSR corridor extending through the Pacheco Pass would play an integral role in making the statewide vision a reality.

With a funding gap of at least \$15 billion to connect the Bay Area and the Central Valley, and approximately \$45 billion more needed to complete connections to Southern California, it is clear that the federal and state governments must play a central role in funding and delivering this megaproject. Significant and sustained funds from Washington, D.C. and Sacramento are critical to enacting the voter-approved vision. MTC and ABAG are well-positioned to take on a significant role in advocating for federal infrastructure dollars, as Congress considers a major infrastructure package in the months and years ahead.

Moreover, with the Bay Area poised to invest billions of dollars to remake this central corridor, a strong, shared regional vision is critical. MTC and ABAG will work closely with partners in Sacramento and Washington to represent Bay Area residents’ priorities for rail connections throughout the region and beyond, including working to ensure that the next phase of construction prioritizes the “Valley to Valley” segment, connecting the Central Valley trunk line to the job-rich Bay Area.





Plan Bay Area 2050 includes a limited selection of freeway widening projects, with a larger focus on making better use of the existing freeway network. Express lanes have been a resource for Bay Area drivers since 2010, providing a reserved freeway lane that allows buses, carpoolers and fee-paying solo drivers to bypass congestion on several corridors throughout the region. The tolls on these lanes increase as traffic increases and decrease as traffic decreases to provide more reliable travel times. Plan Bay Area 2050 **builds an integrated regional express lanes and express bus network**, resulting in 600 miles of express lanes throughout the Bay Area that would enable fast and reliable express bus service and carpool trips. Robust regional express bus service complements regional rail and local transit, providing an improved option for regional trips without the need for extensive infrastructural upgrades.

Planning for express lanes is closely linked with the aforementioned strategy to implement per-mile tolling on select freeways with transit alternatives. Express lanes serve as a near-term investment that improves travel conditions, with per-mile tolling providing a medium- to long-term policy flexible enough to ensure that roads do not become overwhelmed with congestion as the Bay Area's population grows, even if driving were to become cheaper or more attractive. On corridors where per-mile tolling is proposed under Plan Bay Area 2050, the express lanes could convert to carpool- and bus-only lanes, ensuring that carpoolers and bus passengers continue to see the benefits of a priority lane on freeways.

MAP 4.2

# Regional Transit Investments

- FERRY**
  - New Ferry Service
- RAIL**
  - Existing BART Service
  - New BART Service
  - BART Frequency Boost
  - Existing Commuter Rail Service
  - New Commuter Rail Service
  - Commuter Rail Frequency Boost
  - New BART or Commuter Rail Crossing
- EXPRESS BUS**
  - New Express Bus Service
- HIGH-SPEED RAIL**
  - New Rail Service
- GROUP RAPID TRANSIT**
  - New Rail Service
- Plan Bay Area 2050 Growth Geographies
- REGIONAL TRANSPORTATION**
  - Major Airport
  - Major Seaport

**SCALE**

**OAKLAND** > 350,000  
 Novato 50,000 – 350,000



Source: TomTom North America, 2019  
 Map Author: PB, 5/21

Alignments are for illustrative purposes only. Improvements to existing express bus or ferry frequencies are not shown. New express bus service with peak headways greater than 15 minutes is not shown. For more information on the individual transportation projects included in Plan Bay Area 2050, see the Transportation Project List.



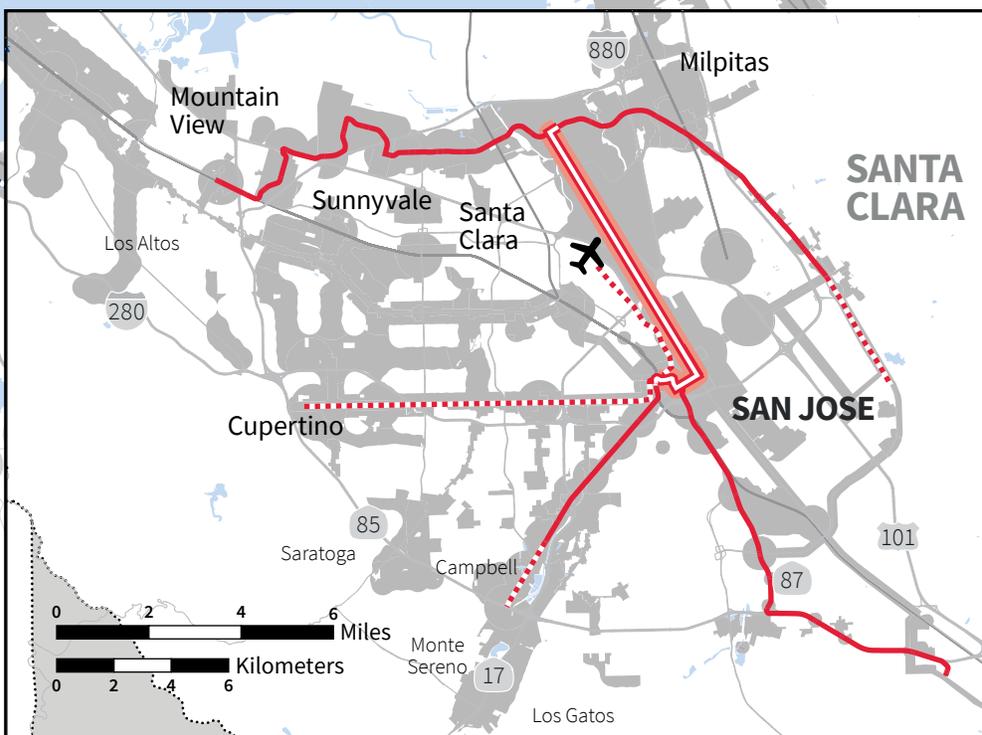
Alignments are for illustrative purposes only. Improvements to existing local bus frequencies are not shown. For more information on the individual transportation projects included in Plan Bay Area 2050, see the Transportation Project List.

POPULATION	
<b>OAKLAND</b>	> 350,000
Novato	50,000 – 350,000
Pacifica	< 50,000

**MAP 4.3**  
**Local Transit Investments**

- LIGHT RAIL**
- Existing Light Rail Service
- ⋯ New Light Rail Service
- ▬ Light Rail Frequency Boost
- ▬▬ Light Rail Grade Separation
- BUS RAPID TRANSIT**
- Existing Bus Rapid Transit
- ⋯ New Bus Rapid Transit
- Plan Bay Area 2050 Growth Geographies
- REGIONAL TRANSPORTATION**
- ✈ Major Airport
- ⚓ Major Seaport
- Rail
- Highway & Interstate
- Major Road

**TO PALO ALTO CALTRAIN STATION**



Source: TomTom North America, 2019  
Map Author: PB, 5/21

## TRANSPORTATION STRATEGIES Funding and Implementation

Together, Plan Bay Area 2050's 12 transportation strategies move the Bay Area toward a more equitable future by ensuring that residents with low incomes can rely on the current system of roads and transit options, investing in more safe and healthy streets, and improving the region's transit network. Through advocacy, legislation, initiatives, planning and research over the next 30 years, MTC and ABAG can work with partners to secure a \$579 billion investment into our region's future mobility, ensuring that everyone — and especially those historically marginalized and currently underserved — can get where they need to go with safety and ease.



Photo: Karl Nielsen



## Transportation Strategies — Cost : \$579 Billion

Maintain and Optimize the Existing System	<b>T1. Restore, operate and maintain the existing system.</b> Commit to operate and maintain the Bay Area’s roads and transit infrastructure while restoring transit service hours to 2019 levels.	<b>\$390 BILLION</b>
	<b>T2. Support community-led transportation enhancements in Equity Priority Communities.</b> Provide direct funding to historically marginalized communities for locally identified transportation needs.	<b>\$8 BILLION</b>
	<b>T3. Enable a seamless mobility experience.</b> Eliminate barriers to multi-operator transit trips by streamlining fare payment and trip planning while requiring schedule coordination at timed transfer hubs.	<b>\$3 BILLION</b>
	<b>T4. Reform regional transit fare policy.</b> Streamline fare payment and replace existing operator-specific discounted fare programs with an integrated fare structure across all transit operators.	<b>\$10 BILLION</b>
	<b>T5. Implement per-mile tolling on congested freeways with transit alternatives.</b> Apply a per-mile charge on auto travel on select congested freeway corridors where transit alternatives exist, with discounts for carpoolers, low-income residents, and off-peak travel; and reinvest excess revenues into transit alternatives in the corridor.	<b>\$1 BILLION</b>
	<b>T6. Improve interchanges and address highway bottlenecks.</b> Rebuild interchanges and widen key highway bottlenecks to achieve short- to medium-term congestion relief.	<b>\$11 BILLION</b>
	<b>T7. Advance other regional programs and local priorities.</b> Fund regional programs like motorist aid and 511 while supporting local transportation investments on arterials and local streets.	<b>\$18 BILLION</b>
Create Healthy and Safe Streets	<b>T8. Build a Complete Streets network.</b> Enhance streets to promote walking, biking and other micro-mobility through sidewalk improvements, car-free slow streets, and 10,000 miles of bike lanes or multi-use paths.	<b>\$13 BILLION</b>
	<b>T9. Advance regional Vision Zero policy through street design and reduced speeds.</b> Reduce speed limits to between 20 and 35 miles per hour on local streets and 55 miles per hour on freeways, relying on design elements on local streets and automated speed enforcement on freeways.	<b>\$4 BILLION</b>
Build a Next-Generation Transit Network	<b>T10. Enhance local transit frequency, capacity and reliability.</b> Improve the quality and availability of local bus and light rail service, with new bus rapid transit lines, South Bay light rail extensions, and frequency increases focused in lower-income communities.	<b>\$31 BILLION</b>
	<b>T11. Expand and modernize the regional rail network.</b> Better connect communities while increasing frequencies by advancing the Link21 new transbay rail crossing, BART to Silicon Valley Phase 2, Valley Link, Caltrain Downtown Rail Extension and Caltrain/High-Speed Rail grade separations, among other projects.	<b>\$81 BILLION</b>
	<b>T12. Build an integrated regional express lanes and express bus network.</b> Complete the buildout of the regional express lanes network to provide uncongested freeway lanes for new and improved express bus services, carpools and toll-paying solo drivers.	<b>\$9 BILLION</b>



Photo: Noah Berger



Photo: Karl Nielsen



## 5 | Environment

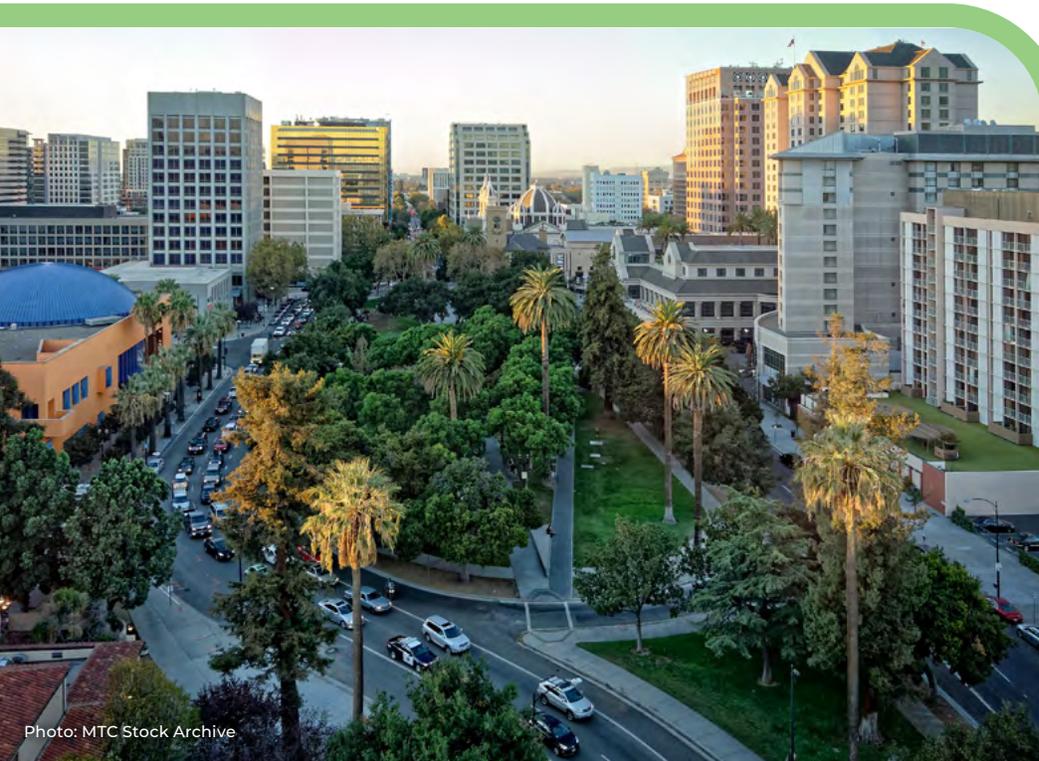


Photo: MTC Stock Archive



Photo: Barrie Rokeach



## A LONG-RANGE VISION FOR THE ENVIRONMENT

A healthy natural environment is the foundation for a thriving society. Without fresh air to breathe, clean water to drink, access to nature, and protection from hazardous threats, investments in transportation, housing and economic systems can only go so far to ensure a good quality of life.

What's more, public health orders that confined many to their own neighborhoods throughout 2020 revealed an acute need for more open space. From parks and trails to outdoor dining, quality outdoor spaces near home are more essential for health and recreation than ever before.

For many, the natural beauty and scenic destinations in all nine Bay Area counties are the primary reason to live in the area. Yearlong temperate weather; fresh food from local farms; and easy access to beaches, forests and mountains have lured residents and visitors alike to the region for centuries. All residents should be able to enjoy these natural riches, but currently access to open space is not shared equally. Threats like climate change and earthquakes also loom large over the region. Bold and timely actions during the next 30 years can ensure that the natural environment is protected from hazards and shared more equitably among the residents who rely on it. California and the Bay Area are leaders in environmental awareness and advocacy, and with thoughtful policies and investments that center equity, governments and their partners can ensure the continued beauty, health and prosperity of the land, water, air and people of the Bay Area.

## Planning for Resilience to Environmental Uncertainty

Plan Bay Area 2050 prioritizes the preservation and improvement of land, air and water in Bay Area communities through strategies that conserve and better use current resources, mitigate climate change effects, and adapt to hazardous climate or seismic events. Near-, medium-, and long-term strategies are all crucial to realizing a vision of an equitable and resilient natural environment in the face of uncertainty. This chapter's strategies fall under three themes to ensure that the Bay Area is environmentally — and equitably — thriving in 2050:

- 1. Expand access to parks and open space:** Plan Bay Area 2050 proposes strategies to expand and modernize the Bay Area's open spaces. These spaces range from ecosystem-critical conservation lands to community-building gathering spaces like parks, trails and recreation facilities. Urban growth boundaries established by local jurisdictions as of 2020 would be maintained as housing strategies support growth within an existing urban footprint.
- 2. Reduce climate emissions from vehicles:** The plan seeks to mitigate emissions and reduce future climate impacts at the employer level by expanding commute trip reduction programs at major employers. On an individual level, the plan encourages Bay Area residents to drive less through transportation demand management initiatives. When people do choose to drive, Plan Bay Area 2050's strategy to expand clean vehicle initiatives could help them purchase and power their cars with the most environmentally friendly options.
- 3. Reduce risks from hazards:** The plan puts forward strategic adaptation measures to address inevitable climate change and other natural hazards. Seismic and wildfire impacts are addressed by providing means-based financial support to retrofit residential buildings. Energy upgrades to enable carbon neutrality in all commercial and public buildings help to ensure health and safety for everyone. Finally, Plan Bay Area 2050 would fund adaptation measures that protect residents from the dangers of sea level rise.



Photo: Karl Nielsen

### ADVANCING EQUITY THROUGH ENVIRONMENT

In an equitable future, all Bay Area residents, regardless of race, age or income, would have access to open space, clean air and water, safe housing, and a full suite of sustainable transportation choices. Climate change's effects grow more hazardous with each additional degree in global temperature, and they are felt most acutely by underserved communities of color and people with lower incomes — people who often already face uncertain housing situations and health risks before any shock to the region hits.

Equitable environmental strategies must account for past injustices and seek to improve housing stability for those most at risk of displacement due to environmental causes, ensuring the most vulnerable communities are prepared to withstand a range of future environmental shocks. Plan Bay Area 2050 proposes long-term strategies and means-based support to protect those most at risk from environmental hazards and the effects of climate change, including retrofitting residential buildings against wildfires and earthquakes and protecting vulnerable communities from sea level rise.

## STRATEGIES Expand Access to Parks and Open Space

COVID-19 has exposed just how valuable access to parks and open space can be. Historically, access to parks and open space has been more limited in neighborhoods where low-income people of color live than in wealthier, whiter neighborhoods, largely due to housing and land use decisions. Parks in well-resourced, historically exclusionary areas are more numerous and of higher quality. The need to protect and expand open space, particularly in places with dense housing or limited access to quality parks, has never been clearer.

Whether for exercise, relaxation or socialization, the ease with which a person can access safe, well-maintained parks and open spaces can play a role in physical and mental wellbeing. Aside from these direct benefits, research has shown that greening efforts like planting street trees and expanding parks provide important long-term public health benefits enjoyed by all residents, like improving local air quality and providing shade to reduce extreme heat. Engaging with local communities to create and enhance parks where many people live and work, without displacing residents, is particularly important to equity goals. Additionally, improving access to the Bay Area's open spaces on the periphery of urban areas is key to ensuring equitable access to our region's natural riches. Plan Bay Area 2050's transportation strategies help more people access these spaces by supporting community-led transportation enhancements, eliminating barriers to multi-operator transit trips, and improving the region's roads and highways.

In addition to recreation and health benefits, undeveloped open spaces outside the region's urban footprint play a role in limiting sprawl and supporting climate goals. Restricting future development so that these open spaces remain in their natural state focuses development within more sustainable places — those that are near major employment centers and close to, if not already connected to, services and utilities. Such focused development patterns reduce the number of cars on the road and associated emissions from transportation and other sources. Developed lands on average produce an order of magnitude more greenhouse gas emissions than agricultural or natural lands,<sup>1</sup> but emissions vary by type of developed land: walkable, transit-friendly neighborhoods have a lower climate footprint than poorly connected, low-density neighborhoods where driving is the primary form of transportation. Creating and improving parks, while also implementing more sustainable land management practices, will improve resilience to wildfires and other hazards, enhance the ability of lands to sequester and store carbon, support urban greening, and provide employment opportunities.



Photo: Karl Nielsen

1 US EPA. (2021). *Sources of Greenhouse Gas Emissions*. <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>

Plan Bay Area 2050 includes strategic investments to **modernize and expand parks, trails and recreation facilities** that will help ensure that the Bay Area’s growing population has access to open space, regardless of where they live. With a forecasted 35% increase in the Bay Area’s population by 2050, additional investments in parks and recreation facilities are essential to prevent overcrowding and degradation of these vital community resources. Keeping these spaces in a state of good repair, and furthermore, upgrading them to improve accessibility for people with disabilities or better provide community-tailored programming, can elevate the role of these spaces in building strong, equitable communities. Collaborative action to locate new park facilities in neighborhoods that currently lack open space, including Equity Priority Communities and other historically disinvested areas, would work toward equity goals. Such steps could build toward a future where all people have an open space in their community where they can relax, connect and play.

The Bay Area is sustained by its natural lands, ranging from the farms and fields that support our local food systems to buffer zones that stand between wildfire-risk areas and cities or towns. The protection and management of these natural lands has numerous benefits, ranging from carbon sequestration, which slows climate change, to water purification, groundwater storage and flood mitigation. These highly valuable ecological benefits are costly to provide artificially; in many cases, they are impossible to replace once they are lost. Plan Bay Area 2050 outlines further actions to **protect high-value conservation lands** that can ensure today’s natural lands continue to thrive well into the future. Regional funds that augment local investments to conserve and manage critical lands would support a regional goal of protecting and maintaining over 2 million acres of open space by 2050.

In order to curb urban sprawl, Plan Bay Area 2050 **maintains urban growth boundaries** already established by local jurisdictions and counties as of 2020. There are currently a variety of locally adopted land use policies that limit where greenfield development may occur. Maintaining boundaries for urban growth will direct new growth within an existing urban footprint, rather than allowing for further sprawl, while simultaneously preserving invaluable open spaces. Strategies described in detail in the housing chapter, such as strategies to allow more housing in Transit-Rich Areas or High-Resource Areas, are projected to spur enough new housing construction to accommodate all projected household growth. The housing needs of a growing region can be balanced in a way that fosters more inclusive communities, supports sustainable transportation choices, and works toward environmental health.





Photo: Karl Nielsen

Photo: Noah Berger

## NEW DEVELOPMENT AND TRANSPORTATION IMPACTS SENATE BILL 743 AS EMERGING POLICY

Senate Bill 743 (S. Steinberg, Statutes of 2013), implemented across the state in 2020, represents a rethinking of the transportation impacts of development. Historically, California environmental review has evaluated the transportation impacts of new developments based on their forecasted change in traffic congestion as measured by level of service, a method to qualitatively describe the operating conditions of a roadway based on factors such as speed, travel time, maneuverability, delay and safety. Infill development in existing neighborhoods, when measured by level of service, could appear to be more environmentally harmful than development on

greenfield sites in uncongested exurbs due to existing congestion within the already urbanized area. SB 743 updates the environmental review process to focus instead on the amount of new driving — as measured by vehicle miles traveled — that development incentivizes. As a result, developers may shift their anti-congestion priorities from roadway widening to support for shared or active travel or transportation demand management. While it is still too soon to quantify the impacts of SB 743, this reframing of environmental review is a significant new approach that will influence regional climate and housing production goals.



## STRATEGIES Reduce Climate Emissions

The importance of addressing climate change in the face of ever-worsening events like fires, drought, extreme heat and flooding — and the inequitable burdens they all impose — calls for a swift and sustained reduction in greenhouse gas (GHG) emissions across multiple sectors. Senate Bill 375 (A. DeSaulnier, Statutes of 2008), a state mandate to reduce GHG emissions from transportation, calls on regions across the state to combat climate change by coordinating land use and transportation planning across cities and counties.

The following environmental strategies work in concert with other strategies described in the housing, transportation and economy chapters of Plan Bay Area 2050 to reduce climate emissions. When implemented together as one package of policies and investments, the 35 plan strategies reduce GHG emissions by: focusing housing and commercial construction in walkable, transit-accessible places; investing in transit and active transportation modes; and shifting the location of jobs to encourage shorter commutes.

Strategies in this chapter recognize that action is needed at a variety of scales and on different timelines. Employers contribute by encouraging their employees to commute sustainably through incentives and disincentives. For individuals, the plan offers policies that support more sustainable transportation choices and promote access to zero-emissions vehicles. Outside the realm of transportation, buildings are retrofitted to be more efficient and emit less pollution. Together, these strategies could make a dramatic dent in the Bay Area's climate emissions, meeting state-mandated targets while simultaneously advancing equitable outcomes.

Nearly one in four trips taken on a typical day in the Bay Area is a commute trip. Plan Bay Area 2050 encourages sustainable commuting habits by **expanding commute trip reduction programs at major employers**. This strategy would require larger firms to provide alternatives to their workers to reduce their rates of driving alone to the workplace. Plan Bay Area 2050 includes significant investments in transit service enhancements, bike lanes and trails, and high-speed internet infrastructure, enabling a future with greener commutes. Employer policies that allow employees to work from home or commute without their cars leverage these investments.



Photo: Peter Beeler

This strategy relies on both increased work-from-home options and a package of incentives and disincentives to encourage more commutes by shared modes (like transit or carpooling) or active modes (like walking or biking), rather than driving alone. The benefits of these options go far beyond climate emissions. Even amid the obvious employment stresses they brought on, stay-at-home orders associated with the COVID-19 pandemic also demonstrated to many workers and employers the quality-of-life benefits that periodic working from home can bring. Increased telecommuting could also relieve pressure on crowded trains, buses and roadways at peak hours.

By the year 2035, large employers would have to ensure that no more than 40% of their workforce commutes by car on an average workday under the Plan Bay Area 2050 vision. To minimize impacts on small businesses and rural jobs, businesses with fewer than 50 employees would be exempt from this policy, as would agricultural employers. Each employer would have the flexibility to choose the right set of tools for their employees to meet or exceed this target.

Employers may provide free or subsidized transit passes to encourage transit use over car commuting, for example, or direct cash subsidies for employees who choose to walk, bike or telecommute. Parking lots could be reduced in size or eliminated, with the land reused for housing. Compressed work schedules could be yet another tool for employers to help reduce the number of workers commuting by car on any given weekday.

Next, **expanding transportation demand management initiatives** can support and augment employers' commute programs, providing a path to emissions reductions at the individual level. There are many different approaches that make it easier for individuals to shift behavior away from driving alone. Collectively, these approaches are known as transportation demand management (TDM). By reducing Bay Area residents' need to drive alone and making sustainable choices more attractive, government and employers can encourage behavioral shifts that result in fewer cars on the road. Traffic, GHG emissions, and road fatalities and injuries will all decline as a result. Transportation demand management is an area ripe for partnership between regional government, local jurisdictions and the private sector, as well as an opportunity to partner with the state Legislature and the Bay Area Air Quality Management District.

Today, a number of transportation demand management programs are already in place to promote more sustainable travel, including bike share and car share programs and locally imposed trip caps that limit the number of vehicle trips to and from specific employment areas. The Bay Area Commuter Benefits Program, codified into law in 2016, mandates that all employers in the Bay Area with 50 or more full-time employees offer their employees benefits that encourage alternatives to solo car commuting. MTC also coordinates several other transportation demand management initiatives, such as vanpools, education programs, and mobility hubs that concentrate transit and other shared commute options at community spaces. These programs and others like them would receive funding and additional support at the regional level to compound their impacts and reach more Bay Area residents.



Every auto trip begins and ends at a parking spot, making parking another transportation demand management tool with great potential to shift individual behavior. There are a number of approaches at policymakers' and employers' fingertips related to parking that can encourage people to use alternatives to driving alone to work. For example, commuter benefits programs can financially incentivize employees to take transit, and eliminating free parking at workplaces may discourage them from driving. An oversupply of parking encourages driving and impacts everyone, whether they drive or not. In addition to the harmful environmental effects of increased driving, the costs of constructing and managing parking in a building are typically passed on to property owners and renters. Land currently used for personal vehicle storage also prevents other potentially valuable uses of the space, such as housing or parks.

However, there are enduring policies in many cities and counties that mandate building a minimum number of parking spaces at new housing and office developments, regardless of demand. Removing parking mandates can allow for parking to better match market demand while aligning with transportation demand management strategies that reduce driving and traffic. Implementing this strategy benefits housing affordability as well, by allowing developers to forgo the expense of adding unnecessary parking and pass those savings on to renters or homebuyers.

While Plan Bay Area 2050 seeks to reduce the overall need for vehicle trips, it also recognizes that every trip is different and that cars will continue to be a transportation option into the future. In addition to the above strategies that reduce car trips, the plan also explores strategies that can make those remaining auto trips as sustainable as possible by **expanding clean vehicle initiatives**. The long lifespan of most vehicles presents an opportunity for Bay Area residents to retire their older, more polluting vehicles in exchange for rebates to buy zero-emission vehicles.

Aside from support for vehicle purchasing, a suite of supportive programs within MTC's Climate Initiatives Program would further facilitate the adoption of clean vehicles. These programs include a regional electric vehicle charger network and incentives to trade in fossil fuel-powered vehicles for electric vehicles. To advance equity through clean vehicle initiatives, Plan Bay Area 2050 places a specific emphasis on providing charging infrastructure in Equity Priority Communities and supporting households with low incomes to choose electric when replacing vehicles.





Photo: Karl Nielsen

## CLEAN AIR PLAN

### THE AIR DISTRICT'S STRATEGY FOR POLLUTION REDUCTION

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The Bay Area Air Quality Management District (Air District) is the Bay Area's air pollution control agency. In 2017, the Air District adopted *Spare the Air, Cool the Climate*, its current Clean Air Plan, which provides a regional framework to meet state and federal air quality standards and work toward eliminating health risk disparities from exposure to air pollution. The Clean Air Plan further defines a vision and a regional climate protection strategy for transitioning to a post-carbon economy and achieving ambitious state greenhouse gas reduction targets for 2030 and 2050. While Plan Bay Area 2050's strategies work to reduce per-capita CO<sub>2</sub> emissions from vehicles and buildings, the Air District's plan addresses a much wider range of pollutants from a much larger number of sources. To that end, Plan Bay Area 2050 is one piece of the air quality puzzle, but additional policies and investments are needed to meet the Air District's more ambitious targets.

Several Plan Bay Area 2050 strategies align with Clean Air Plan strategies, including road pricing, advancing electric vehicle adoption, and retrofitting buildings to be more

energy-efficient and carbon-neutral. In addition, the Air District advocates for limiting fossil fuel combustion at industrial facilities, stopping methane leaks, reducing exposure to toxic air contaminants, promoting clean fuels, and supporting community choice energy programs throughout the Bay Area as part of its plan.

Since 2017, the Air District's Community Health Protection Program has also been working with Bay Area communities to plan and implement Assembly Bill 617 (C. Garcia, Statutes of 2017), a mandate to improve community health and promote equity by reducing exposure to air pollutants in neighborhoods most impacted by air pollution. Air District staff work closely with state, local and regional governments, including MTC and ABAG, as well as community groups and other stakeholders, to identify and reduce harmful air pollutants. Strategies included in Plan Bay Area 2050 advance equity by aligning with the goals and objectives of the Community Health Protection Program to target investments where they are most needed.





Photo: Noah Berger

## STATE ACTION ON VEHICLES

The Bay Area is not acting alone to promote a more sustainable future. Several mandates and pieces of legislation have been enacted in recent years at the state level to address GHG emissions, including California Executive Order N-79-20 (2020), which requires all new vehicles sales to be zero-emission vehicles by 2035. Plan Bay Area 2050's clean vehicle strategy accelerates the Bay Area's transition in advance of the state mandate by subsidizing charging infrastructure required to support an all-electric future and by promoting incentives to encourage vehicle owners to trade in their older, high-polluting cars for zero-emission vehicles. The state

mandate will require significant support to achieve, particularly to reach lower-income buyers, and Plan Bay Area 2050's investment in a buyback incentive will help the region step up to meet the state's goals.

Additionally, Senate Bill 1014 (N. Skinner, Statutes of 2018) establishes new requirements for transportation network companies (such as Uber and Lyft) to curb GHG emissions. The California Public Utilities Commission and the California Air Resources Board are in the process of finalizing the regulatory framework; the companies will be required to develop a GHG emissions reduction plan and begin meeting their GHG reduction targets by 2023.



## STRATEGIES Reduce Risks From Hazards

The most high-profile, and more visibly destructive, environmental events come from hazards like extreme weather, wildfires, earthquakes and sea level rise. Plan Bay Area 2050's third suite of environmental strategies falls under the theme of reducing risks from these hazards.

Even today, the impacts of extreme weather are evident. Wildfires that threaten thousands of homes are now an annual occurrence, and autumn days with extreme, fire-prone weather have more than doubled in California since the 1980s.<sup>2</sup> Traffic is already routinely rerouted on several low-lying roads during king tide events — annual periods of very high tides that are becoming more frequent as sea levels rise, offering a preview of how flooding may alter the landscape in coming decades. The threat of a major earthquake has also always loomed large over the region, with recent notable earthquakes occurring in the Bay Area in 1989 with the Loma Prieta and in southern Napa County in 2014. Scientific forecasts estimate a roughly 75% chance that the region will experience a major earthquake over the next 30 years.<sup>3</sup>

Events like fires, floods and earthquakes will continue to shape the Bay Area over the next 30 years and beyond. Plan Bay Area 2050 takes these risks into account, discouraging growth in high-risk wildfire areas; planning to protect homes, businesses and transportation infrastructure from sea level rise; and considering avenues to minimize damage from a major earthquake. One major question for the region is how much sea level rise is expected to occur over the next 30 years. The plan assumes 2 feet of sea level rise by 2050<sup>4</sup> and addresses those near-term inundation impacts, preparing to prevent temporary shoreline flooding events (from either sea level rise or storms) from becoming permanent. Given the uncertainty of exactly how and when these hazards will manifest in the region, strategies in Plan Bay Area 2050 seek to advance common-sense solutions to better prepare residents for any scenario.

A major earthquake could happen at any time, and wildfires already rage across the Bay Area. While newly constructed houses and apartment buildings are now subject to much stricter requirements on seismic integrity, fire resistance and utility efficiency, much of the region's existing home stock is comprised of buildings that are decades or centuries old. Many older buildings are not built to withstand major shaking, with structural deficiencies that make them vulnerable to damage during earthquakes, and they often lack the protections needed to reduce risk of burning during wildfires. Older buildings also tend to be less water- and energy-efficient, adding to climate emissions that in turn make wildfire, sea level rise, and other climate-influenced hazards more severe.

To ensure that cost is not a barrier to living in a safe, hazard-resistant home, Plan Bay Area 2050 aims to **provide means-based financial support to retrofit existing residential buildings**. These investments would ensure higher wildfire and seismic standards to protect residents, especially those with low incomes, from fire and earthquakes. This strategy would also fund water and energy upgrades to lower utility bills and reduce waste.

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2 Goss, M. et al. (2020). Climate change is increasing the risk of extreme autumn wildfire conditions across California. *Environmental Research Letters* 15(9). <https://doi.org/10.1088/1748-9326/ab83a7>

3 USGS. (2016). *Earthquake Outlook for the San Francisco Bay Region 2014–2043*. <https://pubs.usgs.gov/fs/2016/3020/fs20163020.pdf>

4 See the *State of California Sea-Level Rise Guidance 2018 Update*, which projects a 1 in 200 chance of exceeding 1.9 feet by the year 2050, characterizing this projection as a medium-high risk adverse choice: [https://www.opc.ca.gov/webmaster/ftp/pdf/agenda\\_items/20180314/Item3\\_Exhibit-A\\_OPC\\_SLR\\_Guidance-rd3.pdf](https://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf)



For residents living in wildfire-prone parts of the Bay Area, fire-resistant roofing and fire-wise landscaping are key areas of safety-focused home improvement. Older homes throughout the Bay Area are also in need of safety upgrades to bring them up to modern standards. Targeted investments for homes would address structural weaknesses that lead to seismic damage, such as buildings with unbraced crawl spaces or multi-story buildings with large openings on the ground floor, known as soft-story buildings.

Other home modification assistance, beyond safety upgrades, could include energy efficiency upgrades, water efficiency upgrades, and electrification to replace natural gas for heating and cooking. These improvements would save families money on their energy bills and help to reduce GHG emissions, further strengthening all the plan's strategies that work together to reduce climate emissions.

Plan Bay Area 2050 primarily directs financial assistance for building renovations toward households with low incomes and families living in Equity Priority Communities that may not have the resources for home improvements. Families living in buildings built before current safety codes were adopted and owners of apartment buildings would also receive financial support for renovations.

In addition to residential buildings, improvements targeting public and commercial buildings help meet Plan Bay Area 2050's climate goals and ensure that critical services remain functional in the event of a disruptive environmental hazard. A regional plan to **fund energy upgrades to enable carbon neutrality in all existing commercial and public buildings** would amplify the combined impact of climate emissions reduction strategies. Local governments across California are aggressively adopting all-electric new construction standards (i.e., to use electricity rather than rely on fossil fuels such as natural gas or propane to power furnaces, boilers or water heaters), though more leadership and action are still needed to retrofit existing public and commercial buildings in the region to make them carbon-neutral. Plan Bay Area 2050 supports fully decarbonizing existing publicly owned and commercial buildings by eliminating natural gas components and installing energy-efficient electrical systems.

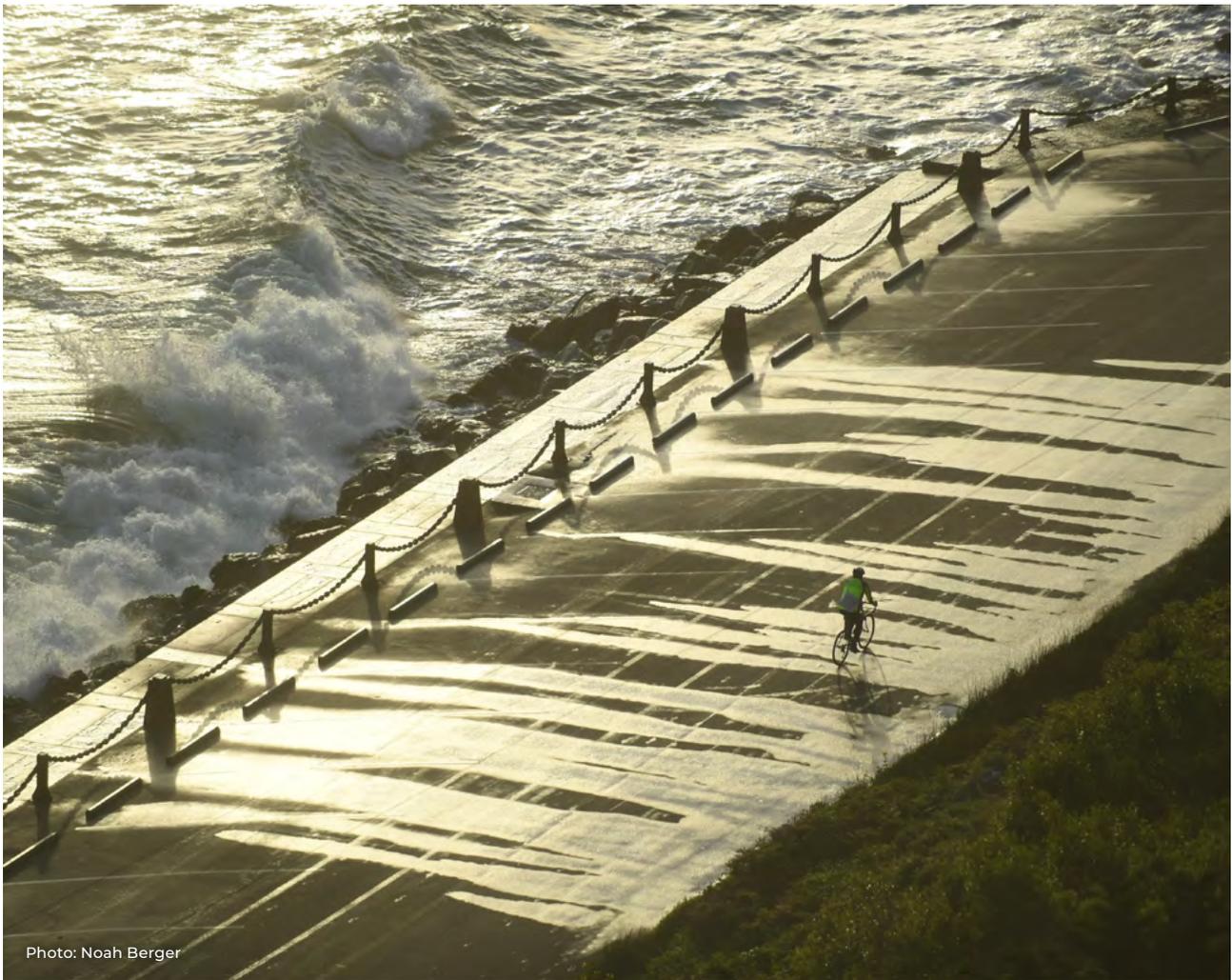


Additionally, the plan supports the development of solar storage and microgrids to facilitate on-site clean energy generation, empowering communities to be more resilient to power loss during interruptions. These investments make essential buildings like hospitals, schools and food markets safer in the event of an earthquake or fire and reduce their contribution to climate change — a force that accelerates the severity and frequency of environmental hazards.

By 2050, flooding from rising sea levels threatens to destroy tens of thousands of homes and workplaces, and close several major highways. Coordinated action at the regional level is needed to **adapt to sea level rise** and protect homes, businesses and transportation corridors. Without intervention, flooding could have devastating impacts regionwide, including constricting an already limited housing supply even further. Plan Bay Area 2050 imagines a future of regional sea level rise adaptation, where vulnerable communities can employ a mix of human-engineered “grey” infrastructure and natural “green” infrastructure to protect the majority of these at-risk areas, as well as road and rail assets at risk of inundation.

While there is still important research to be done to understand the appropriateness and efficacy of various adaptation measures, Plan Bay Area 2050 emphasizes nature-based interventions, such as restoring degraded marshes or implementing ecotone levees — physical structures that protect communities and provide surface area where shoreline vegetation and habitats can slowly migrate up slope over time. These natural interventions have ecological benefits beyond stemming the impacts of sea level rise, as marshlands provide animal habitats, restore ecosystems and purify water. Plants growing in marshes or on ecotone levees also pull carbon dioxide from the air, contributing to lower climate emissions, not to mention their scenic and recreational value. Plan Bay Area 2050 adds its efforts to an existing regional goal of restoring 100,000 acres of marsh.<sup>5</sup>

5 The goal was established in the 1999 *Baylands Ecosystem Habitat Goals* and remains a regional goal as of its latest update, in 2015: [https://baylandsgoals.sfei.org/wp-content/uploads/2015/10/Baylands\\_Complete\\_Report.pdf](https://baylandsgoals.sfei.org/wp-content/uploads/2015/10/Baylands_Complete_Report.pdf).



In cases where natural methods are not feasible due to space or development, built infrastructure like sea walls, traditional levees (embankments typically constructed with fill), or infrastructure elevation provide other options. Sea walls and levees are already employed throughout the Bay Area and currently protect San Francisco’s Embarcadero and port facilities, the city of Belvedere in Marin County, and Foster City in San Mateo County. San Francisco International Airport is also planning to surround itself with a sea wall in the coming decade.<sup>6</sup> Elevating infrastructure, of interest particularly for transportation corridors, allows low-lying connections to remain in operation, albeit at a substantial financial cost. Through elevation and other interventions, Plan Bay Area 2050 protects road and rail corridors that are vulnerable to flooding, including State Route 37, a critical east-west connection for the North Bay; segments of U.S. Highway 101 in the Peninsula and Marin County; and vital freight and commuter rail lines traversing marshlands in Solano and Santa Clara counties.

Plan Bay Area 2050 focuses resources on protecting Equity Priority Communities with limited financial resources from flooding and related displacement. Under the plan’s strategies, 98% of homes regionwide are protected from sea level rise, including all homes in Equity Priority Communities as well as most workplaces in the region.

6 San Francisco International Airport. (2019, March). *Airport Shoreline Protection Program: Fiscal Feasibility Study*. <https://sfgov.legistar.com/View.ashx?M=F&ID=7513892&GUID=EC2CED9E-FB3A-4A25-930E-D481824BE6AD>



Photo: Noah Berger

## BAY ADAPT REGIONAL STRATEGY FOR A RISING BAY

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Bay Adapt is a regional initiative that aims to answer the question: What are the top actions necessary to adapt the Bay Area faster, better, and more equitably to rising sea levels? Threatening our wetlands, frontline communities, infrastructure, and the places we live and work, adapting to a rising bay requires collective will, local and regionwide implementation, and broad leadership. No one agency, jurisdiction or community can or should do it alone. Facilitated by the San Francisco Bay Conservation and Development Commission (BCDC), a state agency dedicated to the Bay's coastal management, and in partnership with community, local, regional, state and federal leaders, Bay Adapt will develop a platform of priority actions to be released in 2021.

This strategic initiative builds upon the work of BCDC's Adapting to Rising Tides program. In 2020, BCDC, the Bay Area Regional Collaborative, MTC, ABAG and Caltrans released *Adapting To Rising Tides Bay Area*, a groundbreaking regional vulnerability and adaptation study. The study assessed the potential impacts of sea level rise across a number of areas, ranging from transportation networks to socially vulnerable communities, natural resources and areas primed for future housing construction. The report also included a number of local case studies throughout the Bay Area, providing critical implementation direction for cities and towns. The study highlighted the urgency with which regional and local actors must come together to address this looming crisis.



## SEA LEVEL RISE ADAPTATION APPROACHES

There are a number of adaptation options for rising sea levels, each with its own suitability along the San Francisco Bay's diverse shoreline. While the right measure for each vulnerable community in the Bay Area will be determined through local planning and engagement, Plan Bay Area 2050 imagines the following set of example adaptation techniques that could be deployed in response to rising seas. In reality, there are many more possible sea level rise adaptation measures, including a number of nature-based solutions like submerged aquatic vegetation, nearshore reefs and beach nourishment, that could be prioritized where suitable.



Photo: Kingmond Young

**Marsh restoration:** rehabilitating or re-establishing a marsh area to return its natural functions and restore wetland habitat; 100,000 acres of marsh restoration is a goal for the region.



Photo: San Francisco Estuary Partnership

**Ecotone levees:** creating a gently sloped levee, which can attenuate waves, ecotone levees provide a wetland-upland transition zone habitat and allow marshland to migrate upslope.



Photo: Karl Nielsen

**Elevation:** reconstructing roadway or rail infrastructure so that it is higher than the projected inundation level while maintaining or creating connections between ecosystems.



Photo: Karl Nielsen

**Managed retreat:** acquiring residential properties where other adaptation efforts are cost-prohibitive or unlikely to be successful in the long-term.



Photo: Mike Gifford, Flickr

**Sea walls and traditional levees:** constructing physical barriers, either of human-engineered materials in the case of sea walls, or natural materials in the case of levees, to deter erosion and inundation.

MAP 5.1

# Impacts of Sea Level Rise and Resilience Investments

## ADAPTATION INVESTMENTS

 Elevated Roads/Rail, Ecotone and Traditional Levees, Seawalls and Tidal Gates

 Marsh Restoration

## AREAS OF PROTECTION

 Areas Protected

 Areas Not Protected

## CRITICAL INFRASTRUCTURE

 Major Seaport

 Major Airport

 Rail

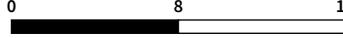
 Highway and Interstate

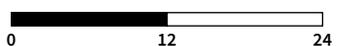
 Major Road

## SCALE

**OAKLAND** > 350,000

Novato 50,000 – 350,000

 Miles

 Kilometers

Plan Bay Area 2050 considers an assumed 2 feet of sea level rise by the year 2050. Adaptation measures and areas protected or not protected are shown as modeling assumptions only. Potential areas for managed retreat and additional marsh restoration not shown. Specific adaptation interventions will be planned and implemented at the local level by the appropriate authorities in accordance with state and federal environmental review guidelines, and may include additional adaptation solutions. Areas of protection will vary based on the adaptation measure used and future site conditions.



Photos: Noah Berger

## PREPARING FOR CLIMATE UNCERTAINTY: WILDFIRE MITIGATION AND ADAPTATION

Realizing that frequent fires do occur naturally in the area, Native American tribes in what is now Northern California held controlled burns for thousands of years as a land management strategy, before they were prohibited from doing so by the California state government nearly a century ago.<sup>7</sup> Since the 1980s, the fires that sweep across the state have increased in size and ferocity: five of the six largest fires in California history occurred in 2020 alone.<sup>8</sup> Scientists agree that the influence of climate change is evident in the increased fire risk of the 21st century, as hotter air means drier plants that burn more readily in fire seasons with longer and longer durations.<sup>9</sup>

The potential destruction of a wildfire cannot be understated. In 2017, wildfires in the North Bay resulted in the destruction of nearly 10,000 homes. Damage to homes, infrastructure and ecosystems are immediate impacts of intensified wildfires, with air- and water-quality impacts extending far beyond the fire's footprint. Plan Bay Area 2050 addresses wildfire with strategies that rely on the three core adaptation principles of **land use**, **land management** and **structural hardening**:

1. **Land use** strategies ensure that future development does not occur in the most at-risk places. Plan Bay Area 2050 **maintains urban growth boundaries** by restricting growth outside them and does not allow

for new priority growth areas to overlap with the highest fire hazard severity zones. This restriction on growth is made feasible by the identification of other safer, more easily mitigated areas of the region to accommodate future growth.

2. **Land management**, of both open and working lands, aims to reduce the intensity of future fires by addressing vegetation and other land characteristics that contribute to wildfires. Wildfire management techniques include reducing combustible materials, called fuel loads, and retaining critical buffer zones that slow the spread of wildfire where forests and urbanized areas meet. The strategy to **protect and manage high-value conservation land** would ensure the stewardship of these lands for generations.
3. **Structural hardening** combats fire risk in communities that already exist in zones at risk of fire damage. The strategy to **modernize existing residential buildings** is designed to reduce risk in over 75,000 Bay Area homes. The strategy would incentivize proven structural hardening methods to support homeowners in high-risk zones like wildfire-resistant roofing and fire-wise landscaping.

Together, these strategies focus future growth away from the highest-fire-risk zones, support increased wildland management programs to reduce ignition risk and fire intensity, and support residential building upgrades that reduce the likelihood of damage when fires occur in the wildland-urban interface.

7 Sommer, L. (2020, August 24). To Manage Wildfire, California Looks To What Tribes Have Known All Along. *NPR*. <https://www.npr.org/2020/08/24/899422710>

8 State of California. (2021). *California's Wildfire and Forest Resilience Action Plan*. <https://fntf.fire.ca.gov/media/cjwfpckz/californiawildfireandforestresilienceactionplan.pdf>

9 Goss, M. et al. (2020). Climate change is increasing the risk of extreme autumn wildfire conditions across California. *Environmental Research Letters*, 15(9). <https://doi.org/10.1088/1748-9326/ab83a7>

## ENVIRONMENT STRATEGIES Funding and Implementation

Plan Bay Area 2050’s environmental strategies chart the course for a Bay Area where development is focused within an existing urban footprint, ringed by natural lands that are well-maintained, and dotted with parks and trails that provide easy access to open space, regardless of where a person lives. Together, these nine environmental strategies shift the Bay Area toward a more equitable future by ensuring that residents with low incomes can live in safe homes, access nature and breathe fresh air. Through advocacy, legislation, initiatives, planning and research over the next 30 years, MTC and ABAG can work with partners to secure a \$102 billion investment into our region’s future health and safety, ensuring that our natural land, air and water belongs to everyone — especially those historically marginalized and currently underserved.



Photo: Ben Botkin



## Environmental Strategies — Cost : \$102 Billion

Reduce Risks from Hazards	EN1. <b>Adapt to sea level rise.</b> Protect shoreline communities affected by sea level rise, prioritizing low-cost, high-benefit solutions and providing additional support to vulnerable populations.	<b>\$19 BILLION</b>
	EN2. <b>Provide means-based financial support to retrofit existing residential buildings.</b> Adopt building ordinances and incentivize retrofits to existing buildings to meet higher seismic, wildfire, water and energy standards, providing means-based subsidies to offset associated costs.	<b>\$15 BILLION</b>
	EN3. <b>Fund energy upgrades to enable carbon neutrality in all existing commercial and public buildings.</b> Support electrification and resilient power system upgrades in all public and commercial buildings.	<b>\$18 BILLION</b>
Expand Access to Parks and Open Space	EN4. <b>Maintain urban growth boundaries.</b> Using urban growth boundaries and other existing environmental protections, focus new development within the existing urban footprint or areas otherwise suitable for growth, as established by local jurisdictions.	<b>N/A</b>
	EN5. <b>Protect and manage high-value conservation lands.</b> Provide strategic matching funds to help conserve and maintain high-priority natural and agricultural lands, including but not limited to Priority Conservation Areas and wildland-urban interface areas.	<b>\$15 BILLION</b>
	EN6. <b>Modernize and expand parks, trails and recreation facilities.</b> Invest in quality parks, trails and open spaces that provide inclusive recreation opportunities for people from all backgrounds, abilities and ages to enjoy.	<b>\$30 BILLION</b>
Reduce Climate Emissions	EN7. <b>Expand commute trip reduction programs at major employers.</b> Set a sustainable commute target for major employers as part of an expanded Bay Area Commuter Benefits Program, with employers responsible for funding incentives and disincentives to shift auto commuters to any combination of telecommuting, transit, walking and/or bicycling.	<b>N/A</b>
	EN8. <b>Expand clean vehicle initiatives.</b> Expand investments in clean vehicles, including more fuel-efficient vehicles and electric vehicle subsidies and chargers.	<b>\$4 BILLION</b>
	EN9. <b>Expand transportation demand management initiatives.</b> Expand investments in programs like vanpools, bikeshare, carshare and parking fees to discourage solo driving.	<b>\$1 BILLION</b>



Photo: MTC Archive



Photo: Noah Berger



## 6 | Outcomes



Photo: Courtesy of Eden Housing



Photo: Anthony Lindsey



## OUTLINING A SHARED VISION FOR THE FUTURE

From the beginning, public input and engagement have fundamentally shaped Plan Bay Area 2050. Work for this regional plan started by talking to Bay Area residents in 2018 to understand their priorities looking out to 2050, resulting in the adopted vision and guiding principles for Plan Bay Area 2050: to ensure an affordable, diverse, connected, healthy and vibrant region for all.

In the three years that followed, much has changed for the Bay Area — the COVID-19 pandemic upended everyday life; a period of unprecedented economic growth turned to a recession; wildfires cast an orange haze over our skies; and social movements for racial justice gained momentum. As a plan rooted in resilience to uncertainty as well as equity, Plan Bay Area 2050 is well positioned to advance the priorities identified by Bay Area residents, even in this unpredictable time.

The prior chapters outlined 35 strategies across four elements: housing, the economy, transportation and the environment. This chapter delves into the Bay Area’s forecasted future in 2050 with the strategies in place, and it is organized by guiding principle. Strategies are interrelated and often have impacts across and beyond their designated topic areas; for example, a housing strategy to allow more housing in Transit-Rich Areas also impacts transportation and the natural environment, and the “connected” and “healthy” guiding principles both capture these overlapping impacts. For a full breakdown of the performance outcomes of Plan Bay Area 2050’s strategies, as well as analysis of how these outcomes differ from a regional trajectory where no new policies or investments are made to tackle our cross-cutting crises, refer to the Draft Plan Bay Area 2050 Performance Report.

**Housing  
Affordability**

Average Bay Area  
spends 53% of their  
housing in 2050.

Photo: Karl Nielsen

## AN UNCERTAIN FUTURE

### Forecasting Equity and Performance Outcomes

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The plan's strategies are designed to be resilient and have been tested under multiple scenarios, as previously discussed, through the Horizon initiative in 2018 and 2019. While state law requires Plan Bay Area 2050 to develop a singular projection of the future, this type of forecasting, especially in 2021, is clouded by uncertainties. Economic and population growth, emerging trends, shifting cultural preferences for different types of homes or travel, and the viability of new technologies like autonomous vehicles will all impact how effectively Plan Bay Area 2050's strategies can be carried out. Rather than striving for a false sense of precision, this chapter focuses on the overall magnitude and direction of changes for certain key indicators to understand Plan Bay Area 2050's effectiveness — highlighting areas where the strategies move the region in the right direction but also acknowledging where outcomes fall short of the visionary aims established for the plan by the public.

## MEASURING EQUITY OUTCOMES

### Race, Household Income and Home Location

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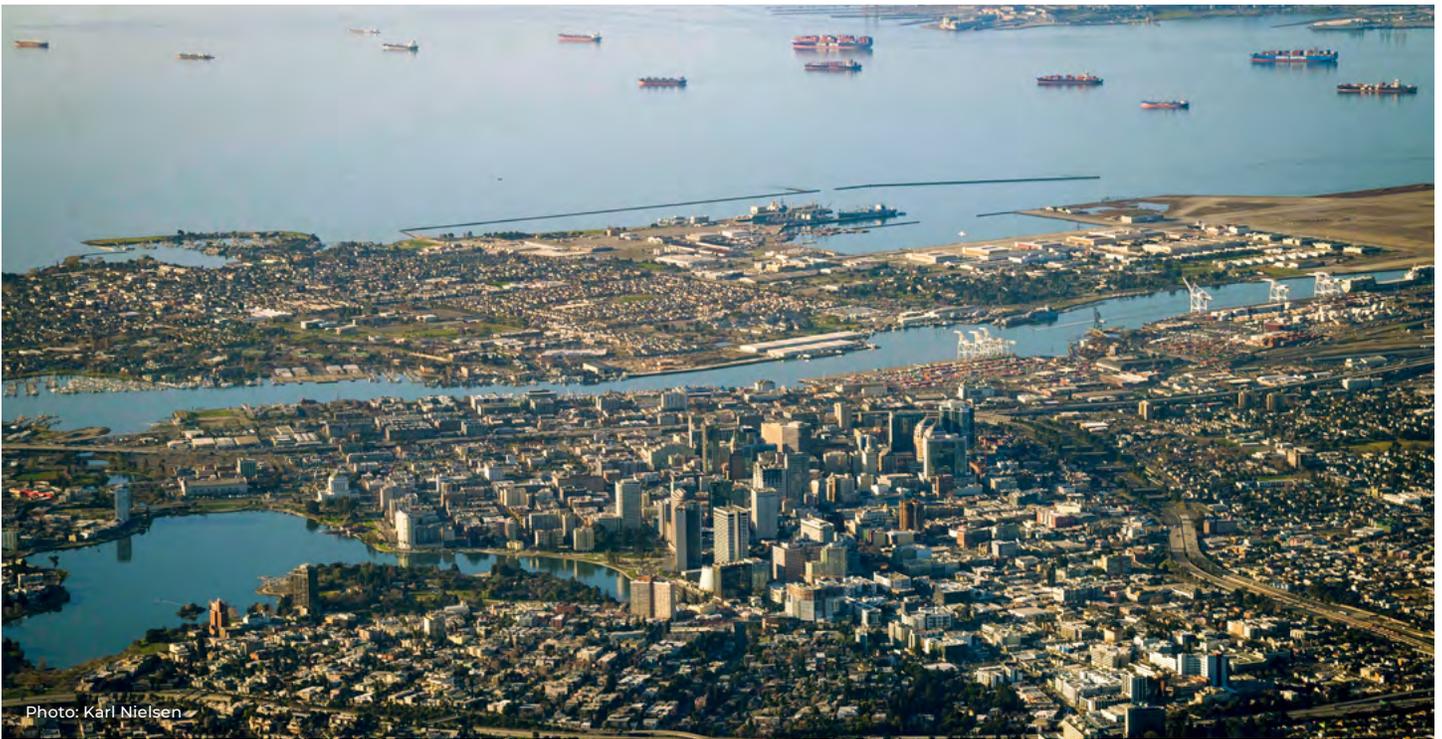
Historical and present-day policies have led to disparate outcomes for many people of color, in the Bay Area and beyond, ranging from higher mortality rates from COVID-19 to persistently lower wages for the same work. While the strategies in Plan Bay Area 2050 cannot address all past wrongs, they have been crafted to support more equitable outcomes than past regional plans and to advance the priorities of communities that have long been shut out of decision-making.

One major limitation of Plan Bay Area 2050, and of this chapter's analysis of the plan's outcomes, is a lack of data by race. Because there is limited data available on transportation patterns by race, MTC and ABAG's simulation models are not able to project how transportation behavior varies by race in the future — a constraint to explore in future regional plans. Instead of racial analysis, the plan's equity outcomes rely on two proxies: household income and home location.

While not all people of color have low incomes, analyzing outcomes by income level can shed light on how residents with the fewest resources — many of whom are people of color — would benefit from the plan's strategies. The other lens used for equity analysis is geographic in nature. MTC and ABAG define Equity Priority Communities using data that includes race, income and other demographics of individual neighborhoods at the census tract level. MTC and ABAG use this national census data to identify neighborhoods with concentrations of people whose lives may have been affected by discriminatory policies and practices. Where applicable, this chapter highlights outcomes for residents of these communities in 2050, providing another proxy for race where direct analytical tools are lacking.

For more information on Plan Bay Area 2050's equity outcomes, see the Draft Plan Bay Area 2050 Equity Analysis Report.

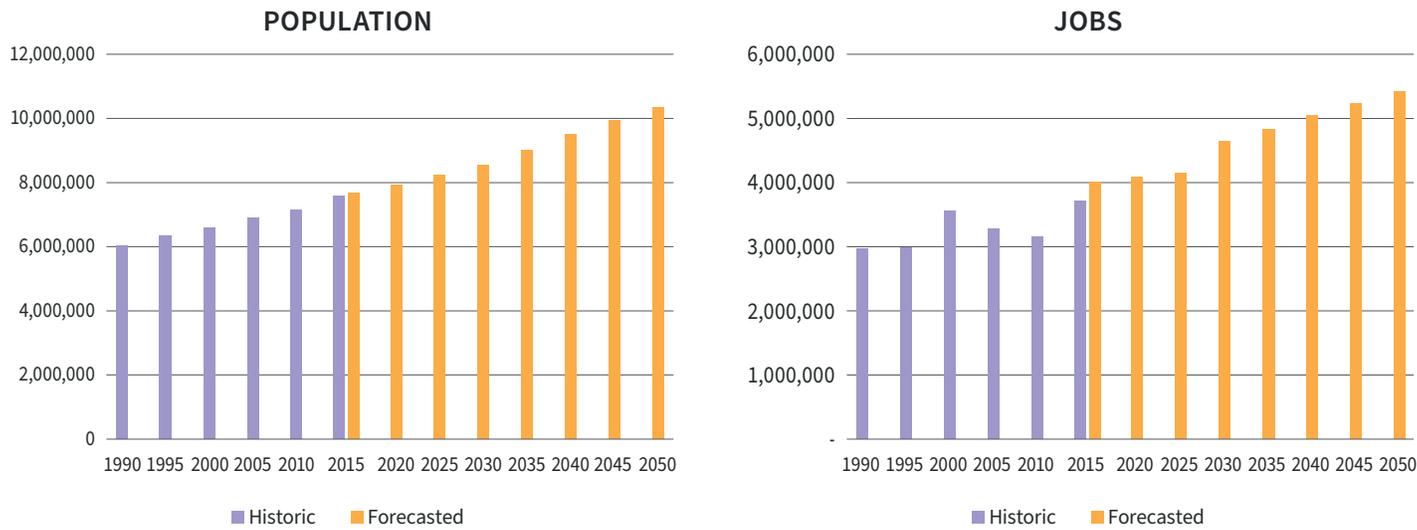




### Growing to Accommodate the Bay Area of 2050

The Bay Area in 2020 was in the midst of unprecedented economic growth before the COVID-19 pandemic hit, bringing with it an economic recession. More booms and busts can be expected over the next three decades, and despite these economic ups and downs, the number of households and jobs in the region is projected to grow through 2050.

Figure 6-1. Historic and forecasted population and job growth



Between 2015 and 2050, the region is forecasted to add 1.4 million new jobs, for a total of 5.4 million Bay Area workers. Household growth is anticipated to roughly follow pace, adding slightly fewer than 1.4 million new households for a total of 4 million households by 2050. This growth would bring the Bay Area’s population to an estimated 10.3 million residents by 2050, up from around 7.8 million today.

To accommodate new families and meet the needs of those living in the Bay Area today, Plan Bay Area 2050 plans for sufficient housing growth (i.e., growth in the number of homes available) to ensure that strong job growth is not met with an increase in long-distance commuters traveling to the Bay Area from outside of the region. In total, the region would need to build another 1.4 million new homes by 2050 to meet forecasted future demand.

## Regional Growth Trends

New jobs and housing, as shaped by Plan Bay Area 2050's strategies, would grow in locations that support transit and advance access to opportunities like jobs, well-resourced schools, healthcare and open spaces for health and recreation. A number of strategies play a direct role in shaping the trajectory of growth, from allowing more housing density in growth areas to maintaining present-day urban growth boundaries to limit sprawl.

As a result of the plan's strategies, housing growth is forecasted to cluster in defined Growth Geographies, with 85% of new households locating to these areas deemed well positioned for growth due to their proximity to existing or planned transit and/or their location in state-defined High-Resource Areas.<sup>1</sup> In particular, Transit-Rich Areas would see the lion's share of new household growth, with over 80% of new households located in Transit-Rich Areas. Meanwhile, historically exclusive High-Resource Areas are projected to house nearly 30% of new households.

Table 6-1. Household growth by location

	NUMBER OF HOUSEHOLDS 2015	NUMBER OF HOUSEHOLDS 2050	PERCENTAGE CHANGE (2015-2050)	SHARE OF REGIONAL GROWTH (2015-2050)
<b>Growth Geographies</b>	1,018,000	2,178,000	+114%	85%
<b>Priority Development Areas</b>	687,000	1,672,000	+143%	72%
<b>Transit-Rich Areas</b>	1,343,000	2,460,000	+83%	82%
<b>High-Resource Areas</b>	1,144,000	1,526,000	+33%	28%
<b>REGION</b>	<b>2,667,000</b>	<b>4,043,000</b>	<b>+51%</b>	<b>100%</b>

NOTE: Numbers do not sum to 100% because Priority Development Areas, Transit-Rich Areas and High-Resource Areas are not mutually exclusive.

While not as focused as housing growth, the majority of all job growth would be concentrated in Growth Geographies, with 60% of jobs expected to be located within walking distance of high-quality transit. The co-location of household and job growth in these areas is critical to enabling shorter and more sustainable commutes, as well as providing much-needed services to new residents. A smaller share of job growth is predicted for High-Resource Areas; job growth is a lower priority in these areas, many of which are already located near major employment centers in the Peninsula and South Bay.

Table 6-2. Job growth by location

	NUMBER OF JOBS 2015	NUMBER OF JOBS 2050	PERCENTAGE CHANGE (2015-2050)	SHARE OF REGIONAL GROWTH (2015-2050)
<b>Growth Geographies</b>	2,382,000	3,156,000	+32%	55%
<b>Priority Development Areas</b>	1,882,000	2,561,000	+36%	48%
<b>Transit-Rich Areas</b>	2,504,000	3,386,000	+35%	63%
<b>High-Resource Areas</b>	1,332,000	1,530,000	+15%	14%
<b>REGION</b>	<b>4,005,000</b>	<b>5,408,000</b>	<b>+35%</b>	<b>100%</b>

NOTE: Numbers do not sum to 100% because Priority Development Areas, Transit-Rich Areas and High-Resource Areas are not mutually exclusive.

1 See the Growth Geographies section in the Introduction chapter for more information on the Plan Bay Area 2050 Growth Geographies.

## Local Growth Trends

Plan Bay Area 2050's strategies would also shift how people, homes and jobs are distributed across the Bay Area's nine counties. Santa Clara County, currently the region's most populous county, is expected to lead the counties in household growth, with 1 in every 3 new households located in the county. Santa Clara County, home to large employment clusters, is also anticipated to lead in job growth, as prominent industries like information and technology are poised to see further growth, and as services like education, healthcare and business services are expected to expand to support a growing population. In total, just under 35% of new jobs in the region are projected to be located in Santa Clara County.

The East Bay, comprised of Alameda and Contra Costa counties, is expected to take on another one-third of housing growth, distributed across urban and suburban Growth Geographies. The two counties combined are projected to accommodate around one-third of the region's job growth. Alameda County is expected to have the second highest share of both household and job growth after Santa Clara County. Because so much of the Bay Area's housing is already located in Alameda County, with many of its residents commuting to other counties for work, intensified job growth in Alameda County could help to address the jobs-housing imbalance and associated transportation challenges, such as congested roads and crowded trains.

On the Peninsula, San Francisco and San Mateo counties are the forecasted home to one-quarter of new regional households and jobs. Intensified growth in these counties that historically have been slow to grow would make it possible for more people to live near their workplaces. Major new transit investments, ranging from frequency improvements to the Caltrain system to the Link21 new transbay rail crossing between the East Bay, San Francisco and points south, would be essential to support this growth in a sustainable manner.

Together, the North Bay counties of Marin, Napa, Sonoma and Solano are expected to be home to less than 10% of new households and jobs, as relatively limited job centers and transit options coupled with wildfire risk make these counties less suited for growth. In fact, Marin County is projected to see a minor net loss in jobs as its population ages and exits the workforce.



Photo: Noah Berger



## Understanding Outcomes by Guiding Principle

Plan Bay Area 2050's vision is to make the Bay Area more affordable, diverse, connected, healthy and vibrant for all who live here. How well does it succeed? The following projections contrast conditions today (represented using 2015 baseline data) against forecasted outcomes in the year 2050. While these outcomes may be influenced by future unknowns, they represent MTC and ABAG's best possible guess of how the region would look in the future under the plan's strategies. Comparing today's conditions against future performance shows where the plan succeeds and where more work is needed.



Photo: Karl Nielsen



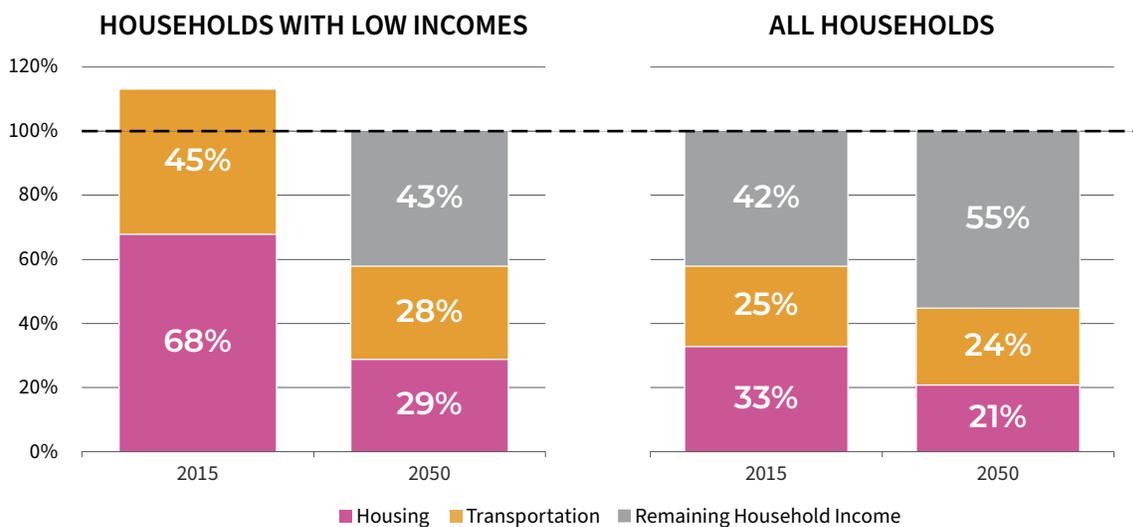
## AFFORDABLE OUTCOMES

Housing and transportation costs, the two largest expenditures for most Bay Area families today, would decrease as a share of household income by 2050 under Plan Bay Area 2050’s strategies. Families with low incomes would see larger reductions in these costs than the region at large, providing much-needed relief for many families struggling to afford other necessities like food, healthcare or education. This outcome would be driven by a sizeable investment in new affordable housing construction, including a requirement that all new large developments make 10% to 20% of their units affordable, and preservation of existing affordable units. These strategies would result in 1 million new affordable homes by the year 2050 — enough for every new and existing family with a low income. By 2050, one quarter of all Bay Area homes, including roughly two in five homes in Equity Priority Communities, would be deed-restricted affordable.

Housing costs would also decrease for middle- and upper-income households as housing production better matches the demand for new housing. Furthermore, the strategies would link affordability and sustainability goals, directing new housing growth within existing urban growth boundaries to avoid sprawl into cheaper greenfield construction sites and reduce greenhouse gas emissions.

Household transportation costs would also decrease slightly under Plan Bay Area 2050’s strategies, even when accounting for new per-mile tolling on congested freeway corridors. Greater rates of transit usage and telecommuting, combined with a strategy to reduce the cost of long-distance and multi-operator transit trips through fare integration, would help to reduce household transportation costs for residents of all income levels. For residents with low incomes, transportation costs would decrease even further as a result of means-based discounts on transit fares, even when accounting for new transportation costs from per-mile tolls, which would feature a discounted rate for drivers with low-incomes.

Figure 6-2. Share of household income spent on housing and transportation costs



NOTE: Accounting for people with no incomes, people on financial assistance and the currently unhoused, housing and transportation costs as a share of income exceeded 100% for households with low incomes in 2015.



## DIVERSE OUTCOMES

Affordability is closely tied with a vision for a diverse and inclusive Bay Area, and many of the affordability strategies described above also would contribute to advancing the plan's guiding principle of diversity. Strategies that allow more housing construction in High-Resource Areas would counterbalance the exclusionary history of many of these places and would increase access to opportunity to more Bay Area residents.

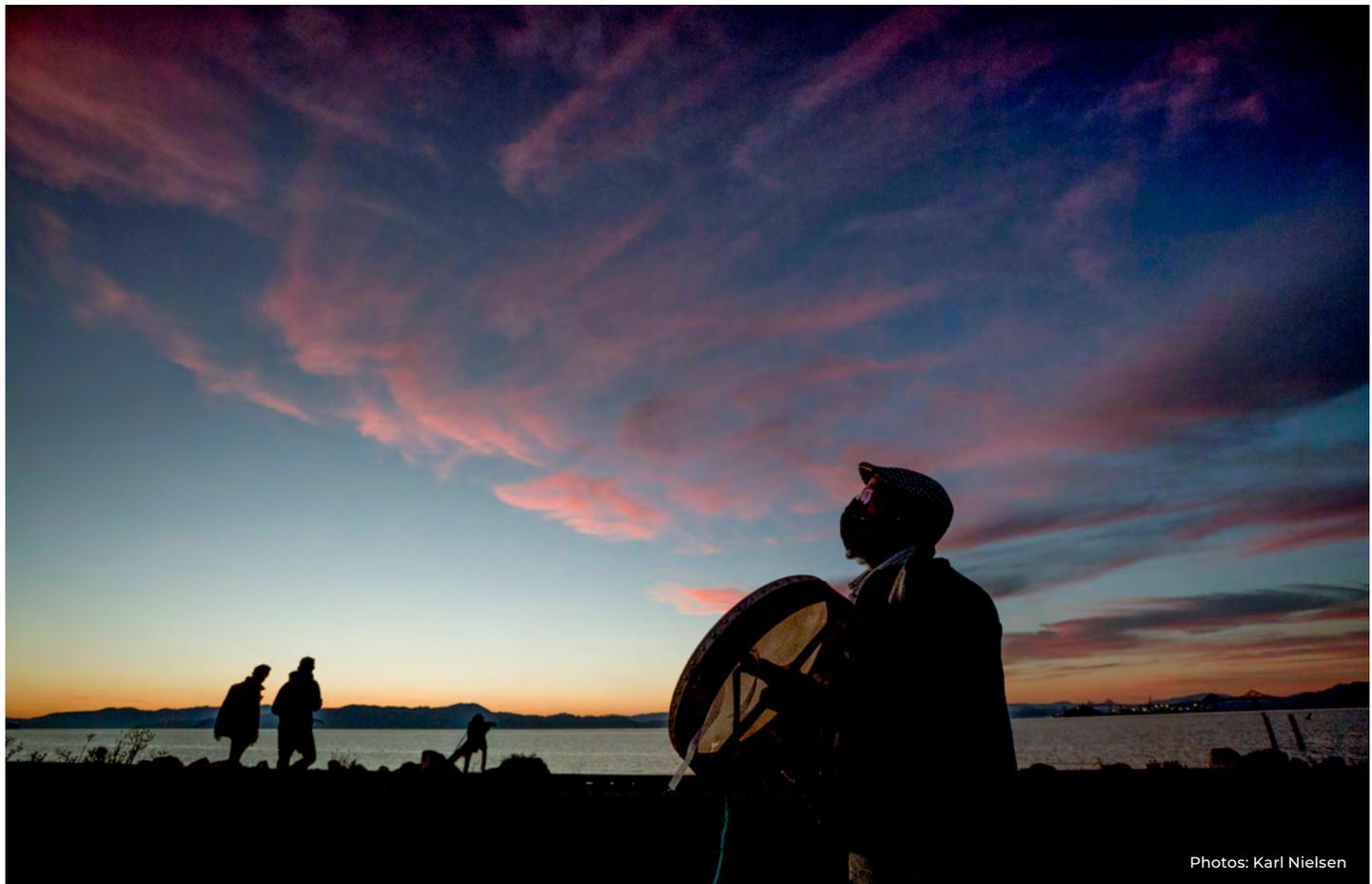
If the strategies in Plan Bay Area 2050 are implemented, by 2050 the share of housing in the region's High-Resource Areas that is affordable by deed restriction would increase from a mere 2% to a much more sizeable 24%. New affordable housing options in these neighborhoods would allow residents with low incomes to take advantage of resources tied with upward economic mobility, such as quality schools, and also enable a modest decrease in concentrated affluence throughout the region. Transit-Rich Areas, when compared to High-Resource Areas, would see even greater gains in the share of residents with low incomes indicating that families with low incomes would be able to benefit from investments that improve transportation in inclusive communities. The residents with low incomes would comprise nearly 40% of residents in Transit-Rich Areas up from 30% in 2015, allowing more people with low incomes to take fuller advantage of the Bay Area's improved transportation network.

Displacement, which occurs when housing costs rise to the point where existing residents cannot afford to remain in their homes, has been an entrenched problem in the Bay Area for decades. Strategies that expand access to mortgage down payments for families with low incomes would support greater rates of homeownership, sheltering these families from volatile rent prices and tempering displacement risk. The share of families with low incomes that own their own homes is projected to increase from 40% in 2015 to 50% by 2050. When combined with strategies that expand protections for renters and increase the number of affordable homes in Equity Priority Communities and other vulnerable areas, these strategies would mitigate displacement risk somewhat in the region, though residents in approximately 20% of all Growth Geographies still would experience displacement risk.

While the disruptive impacts of displacement on individuals and communities are significant, the strategies in Plan Bay Area 2050 would increase the likelihood of displaced families relocating to affordable housing in other Bay Area Growth Geographies rather than being forced out of the region. The share of households with low incomes would increase in all Growth Geographies with Plan Bay Area 2050 strategies in place, even when accounting for displacement, which suggests that displaced families would largely move to new Growth Geographies instead of to the more affordable periphery of the Bay Area's nine counties.

Table 6-3. Displacement trends

SHARE OF NEIGHBORHOODS (TRACTS) THAT EXPERIENCE DISPLACEMENT BETWEEN 2015 AND 2050		DISPLACEMENT
<b>Regionwide</b>	All Neighborhoods (total 1,579 neighborhoods)	48%
	Equity Priority Communities (total 339 neighborhoods)	40%
	High Displacement Risk Tracts (total 850 neighborhoods)	37%
<b>Within Growth Geographies</b>	Growth Geographies (total 492 neighborhoods)	17%
	High-Resource Areas (total 199 neighborhoods)	17%
	Transit-Rich Area (total 344 neighborhoods)	9%



Photos: Karl Nielsen

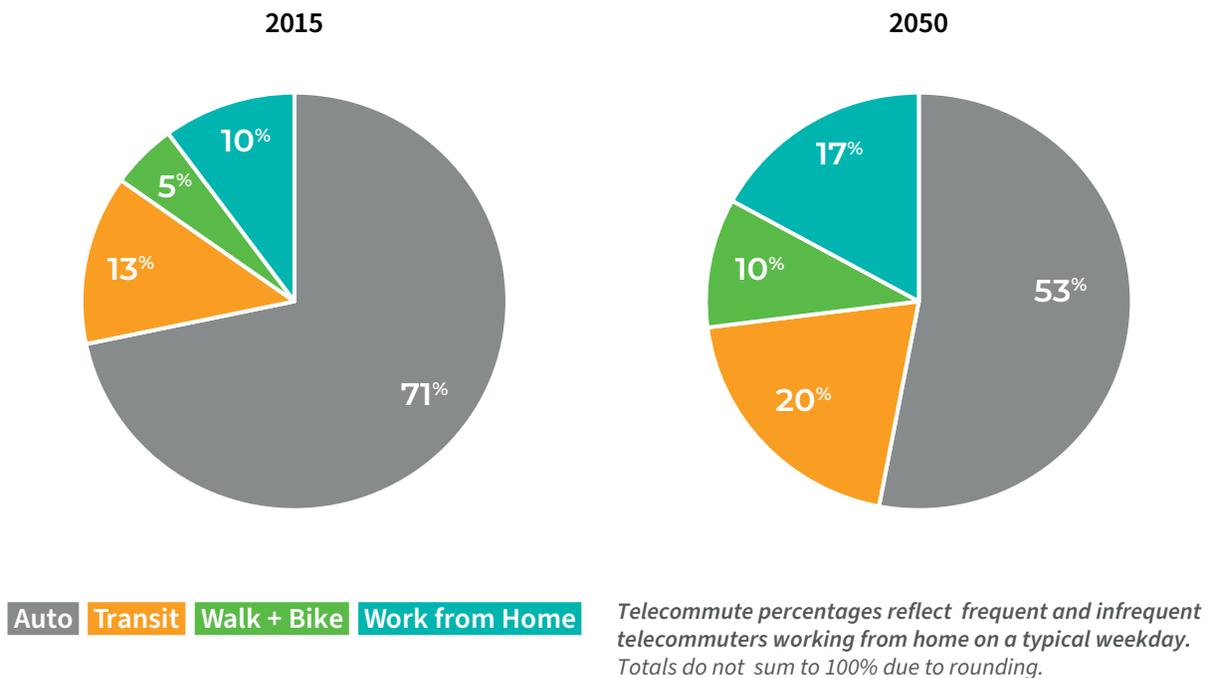


Photo: Karl Nielsen



Plan strategies across the four elements aim to work together to promote a safer and better-connected Bay Area by 2050. Housing and economy strategies encourage walkable, transit-connected communities, bolstered by an expanded set of Growth Geographies that go beyond locally nominated Priority Development Areas. In fact, if the strategies in Plan Bay Area 2050 were implemented, by 2050 nearly half of all Bay Area households would live within one half-mile of frequent transit, and nearly three-quarters of all households with low incomes. This land use pattern, supported by billions of dollars in infrastructure investment and policy reforms that improve biking, walking, riding transit and carpooling, would support a significant shift away from auto dependence for all trips. While today 70% of commuters drive to work either alone or in a carpool, that number would decrease to just over 50% by 2050 under plan strategies, as more Bay Area residents are expected to work from home or walk, bike or take transit to work.

Figure 6-3. Commute mode share



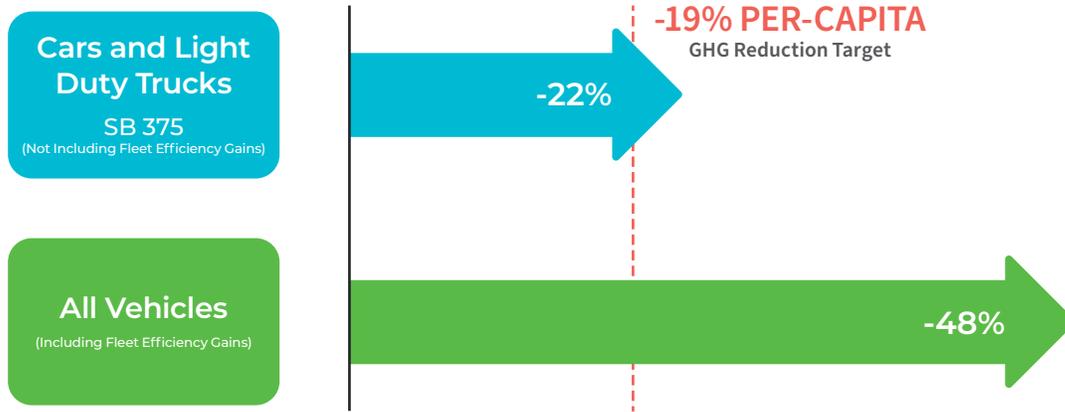
Altogether, the strategies would contribute to small but meaningful gains in the share of jobs that would be accessible within a reasonably short trip by foot, bike or transit. Measured as the share of the Bay Area’s jobs that can be reached within a 20-minute walk or bike ride, a 30-minute drive, or a 45-minute transit trip, employment accessibility would increase slightly for pedestrians, cyclists and transit passengers. For drivers, travel times would remain roughly on par with 2015 levels even as the population expands by millions, with highway tolling and speed limit reductions expected to incentivize greater use of transit and telecommuting. In Equity Priority Communities, employment accessibility improvements would be even greater, particularly for cyclists and transit riders. Additionally, land use changes that would allow for the construction of more mixed-use developments, which cluster homes, shops and offices together where appropriate, would likely result in better accessibility to other types of destinations like community centers and supermarkets.



Photo: Courtesy City of San José Department of Transportation

Plan Bay Area 2050 seeks to put the Bay Area’s people and the environment on a trajectory to be healthier, safer and more prepared for natural hazards by 2050. Several plan strategies would reduce air pollution, a key determinant of climate change and public health. Greenhouse gas emissions from transportation would decrease significantly in the years leading up to 2035, representing a 22% decrease in per-capita emissions when compared to 2005 (surpassing the state mandate of a 19% reduction by that year) — but only if all plan strategies are implemented. It is important to reiterate that this reduction would be achieved through the coordinated efforts of all strategies across the four topic elements.

**Figure 6-4.** Percent reduction in per-capita greenhouse gas emissions between 2005 and 2035



**NOTE:** Under Senate Bill 375 (S. Steinberg, Statutes of 2008), emissions reductions from future improvements in vehicle fuel efficiency associated with state regulatory action do not count toward a region’s greenhouse gas emissions reduction target.

While not counted toward greenhouse gas emissions reduction targets under SB 375, the plan would also promote greener buildings. Emissions from residential buildings, which also contribute to greenhouse gas emissions through energy consumption, would decrease by 16% by 2050 if water and energy retrofits that support more energy-efficient homes are implemented.

Environmental benefits from Plan Bay Area 2050 would go beyond climate emissions. Roads would be safer because of strategies that support a regional Vision Zero policy, including expanded infrastructure for cyclists and pedestrians and lower vehicle speeds enforced by street design and speed cameras. Thousands of fatalities and serious injuries could be averted between now and 2050 with these strategies in place. However, Plan Bay Area 2050 would fall short of completely eliminating road fatalities and injuries, highlighting the need for bolder approaches to advancing road safety.

Access to parks and open space is another focus area of the plan, with strategies promoting improved access to urban parks and expansive conservation lands outside the urban core. Investments that protect and maintain open space would pay dividends, with co-benefits to human health and environmental sustainability. The average acres of urban space per resident would increase by 25% between today and 2050; residents of Equity Priority Communities would experience an even larger increase to account for the relatively limited access to open space in these areas today. The increase would come from combined efforts to modernize and enhance existing parks and create new parks, with an emphasis on opening new parks in Equity Priority Communities.

The region would also be more prepared to face natural hazards like rising seas and earthquakes under plan strategies. Nearly all homes in the Bay Area, and all homes in Equity Priority Communities, would be protected from two feet of sea level rise. Major road and rail corridors at risk of flooding would be protected, ensuring that a contiguous transportation network would remain intact. Additionally, all high-risk homes would be retrofitted to reduce major damage risk from seismic and wildfire events which would help to protect families from displacement, ensure that homes are not lost to hazards and lower the risk of intensifying the regional housing crisis.

Plan Bay Area 2050 aims to promote economic vibrancy through two primary routes: improving pathways to economic mobility, and distributing jobs and housing more evenly throughout the region. Under the plan’s strategies, results would include shorter commutes and more equitably spread tax revenues, albeit with some limitations.

Lopsided job growth in low-wage and high-wage industries, with a corresponding decline in middle-wage employment, have characterized previous decades. While the number of jobs in high-wage industries would continue to see the largest increases through 2050, Plan Bay Area 2050 would make some headway on increasing the number of jobs in middle-wage industries. The largest share of all new jobs, around 40%, would be in high-wage industries, like information or professional and business services, followed by middle-wage industries at 34%. Business incubators and job retraining programs funded through the plan would support employment in these industries. The number of jobs in low-wage industries would see slower growth through 2050 when compared to years prior to 2015 due to automation and shifts in the labor market, but gains in middle-wage employment would bolster pathways to the middle class for residents without a college degree.

**Table 6-4.** Job growth by industry income category

	<b>NUMBER OF JOBS (2015)</b>	<b>NUMBER OF JOBS (2050)</b>	<b>CHANGE IN NUMBER OF JOBS (2015-2050)</b>	<b>SHARE OF REGIONAL GROWTH (2015-2050)</b>
<b>Low-wage industries</b>	981,000	1,276,000	295,000	21%
<b>Middle-wage industries</b>	1,586,000	2,118,000	532,000	38%
<b>High-wage industries</b>	1,438,000	2,014,000	576,000	41%

Not only would Plan Bay Area 2050 influence the types of jobs that would be created in the region through business incubators and job retraining programs, but it also would shape the geography of job growth. Trends in job and household growth would support a more balanced spatial distribution and in turn would alleviate crowding on roads and transit networks. Regionwide, the jobs-to-housing ratio is projected to decrease slightly, from 1.5 jobs per home in 2015 to 1.3 in 2050, reflecting a higher rate of housing production to accommodate demand, even as jobs grow. In the West Bay and South Bay, strategies to stimulate housing would help to better balance jobs and housing by 2050. Meanwhile, in the North Bay and East Bay, strategies to draw jobs closer to predominantly residential communities would result in more limited changes, suggesting more work is needed to address this imbalance.



## CONCLUSION

The challenges of 2020 have set the Bay Area on a new path, and the future continues to be highly uncertain. Plan Bay Area 2050 is a proposal for how the region can rebuild in a way that recognizes past inequities and positions the Bay Area for success across a variety of future conditions. While Plan Bay Area 2050 cannot right all the wrongs of the past, it demonstrates how the region can make meaningful progress toward realizing the vision voiced by members of the public that inspired this work. With the plan's strategies in place, the nine-county region will be better positioned to become a more affordable, diverse, connected, healthy and vibrant place for all.

Plan Bay Area 2050 would make progress on some of the most deep-rooted challenges facing our region today, from housing affordability to climate emissions. Many of the outcomes shared in this chapter are encouraging snapshots of what the future could hold. Others inspire thought on how a next iteration of strategies could reach beyond what this plan would accomplish. Achieving the plan's vision will require collaboration across all levels of government, between the private and public sectors, and from individual Bay Area residents from all walks of life. Otherwise, these outcomes will remain theoretical. The following chapter outlines a plan for implementing the strategies discussed in Plan Bay Area 2050, with a focus on the next five years.



## 7 | Implementation Plan





## SHORT-TERM STEPS FOR LONG-TERM CHANGE

Plan Bay Area 2050 puts forward policy ideas and investment proposals that could transform the San Francisco Bay Area into a more resilient and equitable place to live, work and play over the next 30 years. To identify the near-term steps necessary to accelerate this long-term vision, the Draft Implementation Plan focuses on concrete actions that MTC and ABAG can advance, in partnership with other organizations, in the next one to five years for each of the 35 adopted strategies.

The Draft Implementation Plan builds upon the Action Plan that MTC and ABAG pioneered as part of Plan Bay Area 2040, the region's previous long-range plan. The Action Plan focused on areas where the plan's performance was moving in the wrong direction and sought to address emerging policy issues such as housing and resilience. The Plan Bay Area 2050 Draft Implementation Plan represents an even more comprehensive effort, identifying ways to advance the complete suite of strategies included in the plan.

Partnership and collaboration are major components of this effort. None of the plan's strategies can be implemented by MTC and ABAG alone. The Implementation Plan process will continue to engage with partners, policymakers and the public to identify and tackle shared challenges through 2025 and beyond.

The material in this chapter is presented in draft form and therefore remains a work in progress. As discussed further in the "What's Next" section, there will be additional opportunities for input as the final Implementation Plan is developed.



Photo: Joey Kotfica

## Goals and Objectives

MTC and ABAG have identified four overarching and interconnected goals for the Implementation Plan process. First, the Implementation Plan is designed to **maximize viability of Plan Bay Area 2050’s strategies** with a focus on equity, effectiveness and efficiency. Second, the Implementation Plan seeks to **reinforce the recommendations of existing internal, external or hybrid** initiatives that complement Plan Bay Area 2050’s strategies and vision. Finally, the Implementation Plan aims to **address emerging and cross-cutting strategic issues** raised by partners, policymakers and the public, while **supporting timely achievement of the plan’s technical assumptions**. The agencies have also identified four specific implementation objectives.

Table 7-1. Implementation Plan goals

 <b>IMPLEMENTATION PLAN GOALS</b>	
<b>Goal 1</b>	Maximize viability of the plan’s strategies with a focus on equity, effectiveness and efficiency
<b>Goal 2</b>	Reinforce the recommendations of existing internal, external or hybrid initiatives that complement the plan’s strategies and vision
<b>Goal 3</b>	Address emerging and cross-cutting strategic issues raised by partners, policymakers and the public
<b>Goal 4</b>	Support the timely achievement of the plan’s technical assumptions



Photo: Ben Botkin

# OBJECTIVE #1

## ASSESS REQUIREMENTS FOR STRATEGY SUCCESS

For each of the plan's adopted strategies, MTC and ABAG assessed where the agencies currently stand with respect to four key factors for strategy success:



### **AUTHORITY**

The assignment to carry out the strategies and attendant tasks involved, generally established through legislation or other legal means.



### **FINANCIAL RESOURCES**

Stable, controlled funding in the amounts required to carry out strategies.



### **PUBLIC AND POLITICAL SUPPORT**

While less quantifiable than the other factors, support from members of the public and their elected representatives is critical for attaining and maintaining the authority, funding and capacity needed to carry out implementation actions.



### **TECHNICAL CAPACITY**

The knowledge, staffing, process and procedure required to successfully implement strategies.

MTC and ABAG staff assessed the degree to which the agencies currently possess the four factors and assigned each plan strategy a rating of **limited**, **partial** or **existing**.



Photo: Karl Nielsen

## OBJECTIVE #2

### IDENTIFY MTC AND ABAG IMPLEMENTATION ROLE

MTC and ABAG identified what the agencies' implementation roles should be for each of the strategies moving forward, using the four success factors as a guide. These roles are defined as:

	<b>LEAD</b> <p>MTC and/or ABAG already have, or should work to secure, significant elements of all four strategy success factors. “Lead” does not mean “leading alone” — this role may involve serving as a champion, chief advocate, coalition leader or catalyst over the next one to five years.</p>
	<b>PARTNER</b> <p>MTC and/or ABAG already have, or should work to secure, some — but not all — elements of the four strategy success factors. The strategy’s ultimate success will depend upon partnership among regional policymakers, local governments, partner agencies and civic organizations.</p>
	<b>SUPPORT</b> <p>MTC and ABAG do not have, and are not in the best position to secure, significant elements of the four strategy success factors. MTC and ABAG will offer support for strategy implementation efforts led by other entities.</p>

For more information on the strategy assessment and role recommendations, including rating and role definitions, please see the Draft Plan Bay Area 2050 Implementation Plan Briefs.

## OBJECTIVE #3

### IDENTIFY VEHICLES FOR STRATEGY IMPLEMENTATION

After identifying the strategy success requirements and roles, MTC and ABAG determined the appropriate methods for strategy implementation, broadly defined in three categories, or “vehicles”: **Advocacy and Legislation; New, Existing, or Restructured Initiatives;** and **Planning or Research.**

## OBJECTIVE #4

### RECOMMEND SPECIFIC IMPLEMENTATION PRIORITIES AND ACTIONS

For each strategy, MTC and ABAG proposed one or more specific actions that could support implementation over the next one to five years, categorized by the three implementation vehicles. At this draft stage, implementation priorities are primarily focused on actions that MTC and ABAG can execute. Following the release of this draft plan, the Partnership Phase of the Implementation Plan will expand the focus beyond MTC and ABAG and further develop the partnerships and commitments required to move each strategy forward, as well as proposed timelines for implementation actions.

#### What Is an Implementation Action?

Implementation actions are the specific actions that will be required to advance Plan Bay Area 2050 strategies — defined as either public policies or investments — over the next one to five years. These actions are the *Who, What, Where, When* and *How* of making the strategies a reality.

## Engagement with Partners and the Public

The external engagement process for the Implementation Plan kicked off in November 2020 with two large virtual sessions. These online workshops drew more than 150 participants representing over 100 different organizations and entities, including local jurisdictions, public agencies, non-profits and advocacy groups.

These virtual sessions generated over 3,000 comments for MTC and ABAG staff to consider and evaluate, including more than 500 implementation action recommendations. From November 2020 to April 2021, staff held three dozen small-group follow-up discussions with over 40 separate organizations. These conversations helped develop draft implementation actions in greater detail, including discussion of potential supporting roles for partners.

Public engagement activities for the Implementation Plan included an online survey and a text-based survey, which were available in English, Spanish and Chinese, and 10 focus groups with community-based organizations and Bay Area youth. The goal of the public engagement process was to gauge the public's top priorities for implementation over the next five years. For more information about the engagement conducted for the Plan Bay Area 2050 Implementation Plan, see the Draft Plan Bay Area 2050 Public Engagement Report.

## Strategy Assessment and Role Recommendations

For the first Implementation Plan objective, MTC and ABAG staff conducted a strategy assessment to identify and evaluate current conditions with respect to four key factors for success: authority, financial resources, technical capacity and public and political support. A clearer picture of current conditions will inform the future focus of the Implementation Plan and allow for better calibration of the specific actions needed to ensure strategy success. The strategy assessment also recommended roles for MTC and ABAG moving forward — whether to lead, partner or support strategy implementation.

Results of the strategy assessment and role recommendations are presented in the summary tables and text that follow and incorporate feedback from staff, partners, advisory groups and policymakers. For more information about the strategy assessment and role recommendations for each of the plan's strategies, including an overall contextual summary, please see the Draft Plan Bay Area 2050 Implementation Plan Briefs.



## Transportation

Given MTC's statutory role as transportation planner, funder and coordinator for the Bay Area, most Plan Bay Area 2050 transportation strategies received a "Lead" or "Partner" role designation. A "Lead" role has been identified for strategies that focus on transportation system optimization and recovery where there is a clear need for regional leadership. By contrast, a "Partner" role has been identified for strategies where close partnership with county transportation agencies, transit operators, local transportation departments and the state, among others, will be essential for strategy success. The ongoing work of the Blue Ribbon Transit Recovery Task Force may necessitate role adjustments, depending on its ultimate findings and recommendations.



Table 7-2. Role recommendations for transportation strategies

 <b>DRAFT STRATEGY ASSESSMENT : TRANSPORTATION</b>							
Strategy		Cost (\$Billion)	ASSESSMENT OF CURRENT CONDITIONS				MTC/ABAG Recommended Implementation Role
			Authority	Financial Resources	Public and Political Support	Technical Capacity	
T1	Restore, Operate and Maintain the Existing System	\$390	Existing	Existing	Existing	Existing	 LEAD
T2	Support Community-Led Transportation Enhancements in Equity Priority Communities	\$8	Existing	Limited	Existing	Existing	 PARTNER
T3	Enable a Seamless Mobility Experience	\$3	Existing	Existing	Existing	Existing	 LEAD
T4	Reform Regional Fare Policy	\$10	Existing	Limited	Existing	Existing	 LEAD
T5	Implement Per-Mile  Tolling on Congested Freeways with Transit Alternatives	\$1	Limited	Existing	Limited	Existing	 LEAD
T6	Improve Interchanges and Address Highway Bottlenecks	\$11	Limited	Existing	Existing	Existing	 SUPPORT
T7	Advance Other Regional Programs and Local Priorities	\$18	Existing	Existing	Existing	Existing	 PARTNER

LEGEND: LIMITED PARTIAL EXISTING

 = High-Impact Strategy in Achieving GHG Reduction Target



## DRAFT STRATEGY ASSESSMENT : TRANSPORTATION (CONT'D)

Strategy		Cost (\$Billion)	ASSESSMENT OF CURRENT CONDITIONS				MTC/ABAG Recommended Implementation Role
			Authority	Financial Resources	Public and Political Support	Technical Capacity	
T8	Build a Complete Streets Network 	\$13					 <b>PARTNER</b>
T9	Advance Regional Vision Zero Policy through Street Design and Reduced Speeds	\$4					 <b>PARTNER</b>
T10	Enhance Local Transit Frequency, Capacity and Reliability	\$31					 <b>PARTNER</b>
T11	Expand and Modernize the Regional Rail Network	\$81					 <b>PARTNER</b>
T12	Build an Integrated Regional Express Lanes and Express Bus Network	\$9					 <b>PARTNER</b>



## Housing

The governance landscape for housing in the Bay Area has rapidly evolved over the last several years. MTC and ABAG now have a Housing and Local Planning team; state legislation established the Bay Area Housing Finance Authority (BAHFA); the state infused meaningful funding into housing planning through Regional and Local Early Action Planning Grants; and the ABAG Housing Committee was formed. These developments have provided authority, resources and capacity for the region to act in several strategic areas, illustrated in Table 7-3, where previously MTC and/or ABAG's roles would have been more limited.

Overall, however, financial resources remain a challenge for housing, and significant infusions of revenue — whether from federal or state government programs, or a potential regional revenue measure — will be essential to making progress. BAHFA, ABAG and MTC have a major opportunity over the next several years to prioritize production of housing at all levels of affordability, preserve existing affordable housing, and protect residents facing housing instability and displacement. It is important to note that leading efforts does not mean leading alone. Instead, regional government would lead efforts that support local governments, with a focus on developing new funding sources to support high-cost housing strategies.



Table 7-3. Role recommendations for housing strategies

 <b>DRAFT STRATEGY ASSESSMENT : HOUSING</b>							
Strategy		Cost (\$Billion)	ASSESSMENT OF CURRENT CONDITIONS				MTC/ABAG Recommended Implementation Role
			Authority	Financial Resources	Public and Political Support	Technical Capacity	
H1	Further Strengthen Renter Protections Beyond State Law	\$2	LIMITED	LIMITED	PARTIAL	PARTIAL	 <b>SUPPORT</b>
H2	Preserve Existing Affordable Housing	\$237	EXISTING	LIMITED	EXISTING	LIMITED	 <b>LEAD</b>
H3	Allow a Greater Mix of Housing Densities and Types in Growth Geographies 	-	LIMITED	EXISTING	PARTIAL	EXISTING	 <b>PARTNER</b>
H4	Build Adequate Affordable Housing to Ensure Homes for All	\$219	EXISTING	LIMITED	PARTIAL	LIMITED	 <b>LEAD</b>
H5	Integrate Affordable Housing into All Major Housing Projects	-	LIMITED	EXISTING	PARTIAL	PARTIAL	 <b>SUPPORT</b>
H6	Transform Aging Malls and Office Parks into Neighborhoods	-	LIMITED	EXISTING	PARTIAL	PARTIAL	 <b>PARTNER</b>
H7	Provide Targeted Mortgage, Rental and Small Business Assistance to Equity Priority Communities	\$10	EXISTING	LIMITED	EXISTING	PARTIAL	 <b>LEAD</b>
H8	Accelerate Reuse of Public and Community Land for Mixed-Income Housing and Services	-	EXISTING	EXISTING	PARTIAL	PARTIAL	 <b>LEAD</b>

LEGEND: LIMITED PARTIAL EXISTING

 = High-Impact Strategy in Achieving GHG Reduction Target



## Economy

In general, MTC and ABAG lack the authority, financial resources and technical capacity to carry out Plan Bay Area 2050's economic strategies. This area is one that traditionally has not been within the two agencies' scope of work, but the interconnected nature of long-range regional planning, as reflected in the interplay between all plan strategies, has revealed that more action on economic issues may be needed at the regional scale. To this end, MTC and ABAG have initiated the process of convening a Regional Governmental Partnership for Local Economic Rebound, which will focus on economic equity challenges and opportunities. An early step in this effort is a "listening tour" with local elected officials and stakeholders, which will provide a venue for learning more about where regional coordination can have the greatest impact on economic development. For the most part, it is recommended that MTC and ABAG partner with or support the work of other organizations that are more directly able to implement economic strategies.



Table 7-4. Role recommendations for economy strategies

 <b>DRAFT STRATEGY ASSESSMENT : ECONOMY</b>							
Strategy		Cost (\$Billion)	ASSESSMENT OF CURRENT CONDITIONS				MTC/ABAG Recommended Implementation Role
			Authority	Financial Resources	Public and Political Support	Technical Capacity	
EC1	Implement a Statewide Universal Basic Income	\$205	LIMITED	LIMITED	PARTIAL	LIMITED	 SUPPORT
EC2	Expand Job Training and Incubator Programs	\$5	LIMITED	LIMITED	EXISTING	LIMITED	 SUPPORT
EC3	Invest in High-Speed Internet in Underserved Low-Income Communities	\$10	LIMITED	LIMITED	EXISTING	LIMITED	 PARTNER
EC4	Allow Greater Commercial Densities in Growth Geographies 	-	LIMITED	EXISTING	PARTIAL	PARTIAL	 PARTNER
EC5	Provide Incentives to Employers to Shift Jobs to Housing-Rich Areas Well Served by Transit	\$10	LIMITED	LIMITED	PARTIAL	LIMITED	 SUPPORT
EC6	Retain and Invest in Key Industrial Lands	\$4	LIMITED	PARTIAL	PARTIAL	PARTIAL	 PARTNER

LEGEND: LIMITED PARTIAL EXISTING

 = High-Impact Strategy in Achieving GHG Reduction Target



## Environment

The strategy assessment revealed broadly similar themes across the plan’s environmental strategies: The strategies are very popular, but the financial resources to support them are less secure. In addition, while MTC and ABAG (including entities such as the San Francisco Estuary Partnership and Bay Area Regional Energy Network, which are both hosted by ABAG) have a variety of authorities and capacities to support the strategies, these capacities are generally targeted and not sufficient to implement the full scope of identified needs.

For sea level rise adaptation, assessment results indicate that MTC and ABAG are well positioned to lead coordination and funding efforts in collaboration with the San Francisco Bay Conservation and Development Commission, cities and counties, community-based organizations, non-profits, and businesses, among others. MTC and ABAG are also poised to explore a leadership orientation on implementation of strategies related to climate emissions reductions — namely, strategies focused on commute trip reductions, electric vehicle expansion and transportation demand management.



Table 7-5. Role recommendation for environmental strategies

 <b>DRAFT STRATEGY ASSESSMENT : ENVIRONMENT</b>							
Strategy		Cost (\$Billion)	ASSESSMENT OF CURRENT CONDITIONS				MTC/ABAG Recommended Implementation Role
			Authority	Financial Resources	Public and Political Support	Technical Capacity	
EN1	Adapt to Sea Level Rise	\$19	EXISTING	LIMITED	EXISTING	EXISTING	 <b>LEAD</b>
EN2	Provide Means-Based Financial Support to Retrofit Existing Buildings (Energy, Water, Seismic, Fire)	\$15	EXISTING	LIMITED	EXISTING	EXISTING	 <b>PARTNER</b>
EN3	Fund Energy Upgrades to Enable Carbon-Neutrality in All Existing Commercial and Public Buildings	\$18	EXISTING	LIMITED	EXISTING	EXISTING	 <b>SUPPORT</b>
EN4	Maintain Urban Growth Boundaries 	-	LIMITED	EXISTING	EXISTING	EXISTING	 <b>SUPPORT</b>
EN5	Protect and Manage High-Value Conservation Lands	\$15	EXISTING	LIMITED	EXISTING	EXISTING	 <b>PARTNER</b>
EN6	Modernize and Expand Parks, Trails, and Recreation Facilities	\$30	LIMITED	LIMITED	EXISTING	EXISTING	 <b>PARTNER</b>
EN7	Expand Commute Trip Reduction Programs at Major Employers 	-	EXISTING	EXISTING	EXISTING	EXISTING	<b>CO-LEAD</b> (with Air District)
EN8	Expand Clean Vehicle Initiatives 	\$4	EXISTING	EXISTING	EXISTING	EXISTING	 <b>PARTNER</b>
EN9	Expand Transportation Demand Management Initiatives 	\$1	EXISTING	EXISTING	EXISTING	EXISTING	 <b>LEAD</b>

LEGEND: LIMITED PARTIAL EXISTING

 = High-Impact Strategy in Achieving GHG Reduction Target



Photo: Karl Nielsen

## Implementation Priorities and Actions

MTC and ABAG propose to move forward in the next five years the following implementation priorities and actions, which are organized by Plan Bay Area 2050's elements and themes. For more detail on the proposed implementation actions, including one-page briefs that identify actions and key considerations for each of the plan's strategies, please see the Draft Plan Bay Area 2050 Implementation Plan Briefs.

### Support Across All Elements

A few actions support the implementation of Plan Bay Area 2050's strategies across all elements.

- **Revenues:** Plan Bay Area 2050 is an ambitious, \$1.4 trillion plan that relies on approximately \$780 billion in new revenues. As a result, a focus on generating revenues is needed to support the plan's strategies. MTC and ABAG will collaborate with partners to advocate for financial resources, whether from the federal, state, regional or local levels. It will also be important to align with ongoing developments at the state and federal levels as revenues from recovery and relief efforts are distributed and a wide-ranging federal infrastructure bill moves forward, in addition to a surface transportation reauthorization bill later in 2021. Advocating at the state level to generate funds for resilience needs will also be a regional priority. An expanded discussion on funding the plan will follow later in this chapter.
- **Advocacy:** MTC and ABAG have adopted an Advocacy Program for 2021, and in many instances the goals and objectives of this program align with key implementation priorities identified for Plan Bay Area 2050. These priorities encompass a wide variety of areas, including renter protections; speed limits and enforcement; broadband subsidies for households with low incomes; laws to pilot all-lane tolling or other pricing strategies; and housing density allowances in transit-rich areas, high-resource areas, or jobs-rich jurisdictions; among others. It will be important to deliberately pursue these advocacy aims while ensuring that additional priorities that may emerge from the Implementation Plan process are incorporated into future advocacy programs.
- **Existing Initiatives:** There are several ongoing initiatives within MTC and ABAG that support Plan Bay Area 2050's strategies in different ways. Continuing these initiatives while also working to further their strategic alignment with the plan's vision and goals will be a major focus of the implementation period.
  - Active Transportation Program
  - Climate Initiatives Program
  - Clipper® START Pilot Program
  - Community-Based Transportation Planning Program
  - Commuter Benefits Program
  - Express Lanes
  - FasTrak® START Pilot Program
  - "Forward" Commute Initiatives
  - Priority Conservation Area (PCA) Program
  - Priority Development Area (PDA) Program
  - Regional Advance Mitigation Program
  - Regional Housing Technical Assistance Program
  - Regional Trails Program
  - Vision Zero Policy
- **Equitable Recovery:** As the Bay Area emerges from the COVID-19 pandemic, it will be essential to think through what an inclusive, equitable recovery looks like. In addition to the Regional Governmental Partnership for Local Economic Rebound noted earlier — which will also explore the nexus of infrastructure delivery as economic stimulus, among other areas — MTC and ABAG are exploring other recovery priorities, including essential and transit-dependent workers' mobility needs, the digital divide and support for small businesses.



Photo: Noah Berger



## Transportation

Key implementation actions for Plan Bay Area 2050's transportation element include implementing the recommendations of the Blue Ribbon Transit Recovery Task Force, the Fare Integration Task Force and the Regional Active Transportation Plan. MTC and ABAG staff will update and calibrate the final Implementation Plan accordingly as these efforts continue and more clarity emerges about their final recommendations. Work is also underway to update MTC's Transit-Oriented Development Policy to ensure land use supports current and planned transit investments. Looking ahead, MTC will lead a next-generation freeways study to further explore road pricing and complementary strategies through engagement with partners and the public.

Table 7-6. Draft implementation actions for the transportation element

 <b>Transportation</b>		
Themes and Strategies	Draft Implementation Actions	Implementation Vehicle
<p><b>Maintain and Optimize the Existing System</b></p> <ul style="list-style-type: none"> <li>• Restore, Operate and Maintain the Existing System</li> <li>• Support Community-Led Transportation Enhancements in Equity Priority Communities</li> <li>• Enable a Seamless Mobility Experience</li> <li>• Reform Regional Transit Fare Policy</li> <li>• Implement Per-Mile Tolling on Congested Freeways with Transit Alternatives</li> <li>• Improve Interchanges and Address Highway Bottlenecks</li> <li>• Advance Other Regional Programs and Local Priorities</li> </ul>	1a) Seek new transportation revenues, including for community-led enhancements, fare reform, and a regional means-based fare program, and explore existing transportation funding sources to support operations and maintenance needs	Advocacy and Legislation
	1b) Coordinate the Bay Area’s transportation pandemic recovery with a focus on fiscal stabilization and system rebuilding	New, Existing or Restructured Initiatives
	1c) Reassess Plan Bay Area 2050’s transportation element financial assumptions in 2023 to better reflect the region’s post-COVID-19 financial conditions	
	1d) Implement the recommendations of the Blue Ribbon Transit Recovery Task Force, including those related to fare policy, connected network planning, data collection and coordination, branding/mapping/wayfinding, technology and mobile standards, service coordination, and transit network management reforms, among others	
	1e) Implement the customer-centric fare payment and integration recommendations of the Fare Integration Task Force	
	1f) Deploy the Clipper Mobile app, next-generation Clipper and regional transit mapping/wayfinding to improve the seamless integration of networks	
	1g) Continue and seek greater strategic alignment of existing programs, including Community-Based Transportation Planning Program, Clipper® START, FasTrak® START, Express Lanes, 511, “Forward” Commute Initiatives, and Connected Bay Area, among others, to support the maintenance, optimization, and restoration of the existing transportation system	
	1h) Identify strategies to equitably advance roadway pricing through deep engagement with key partners, stakeholders and the public	Planning or Research
	1i) Update guidelines for the upcoming cycle of the Community-Based Transportation Planning Program	
<p><b>Create Healthy and Safe Streets</b></p> <ul style="list-style-type: none"> <li>• Build a Complete Streets Network</li> <li>• Advance Regional Vision Zero Policy Through Street Design and Reduced Speeds</li> </ul>	2a) Seek new transportation revenues, including for Complete Streets and Vision Zero priorities	Advocacy and Legislation
	2b) Advocate for elimination of the “85th percentile rule” for setting speed limits and for authorization of automated speed enforcement	
	2c) Complete and implement the recommendations of the Regional Active Transportation Plan	New, Existing or Restructured Initiatives
	2d) Continue and seek greater strategic alignment of existing programs, such as the Active Transportation Program, Quick-Build Technical Assistance and the Vision Zero shared data initiative, to support complete streets and regional safety efforts	



## Transportation

Themes and Strategies	Draft Implementation Actions	Implementation Vehicle
<p><b>Build a Next-Generation Transit Network</b></p> <ul style="list-style-type: none"> <li>• Enhance Local Transit Frequency, Capacity and Reliability</li> <li>• Expand and Modernize the Regional Rail Network</li> <li>• Build an Integrated Regional Express Lane and Express Bus Network</li> </ul>	3a) Advocate for changes to state law and federal regulations that will facilitate piloting the conversion of general-purpose lanes and part-time travel lanes to priced facilities	<p><b>Advocacy and Legislation</b></p>
	3b) Seek new transportation revenues, including for local and regional transit expansion	
	3c) Advocate for major capital projects and position them for success, including sequencing projects to align with funding availability as well as assessing their existing funding, project readiness, and characteristics that support Plan Bay Area 2050 goals	
	3d) Advocate for the next phase of California High-Speed Rail construction to connect the Central Valley to the Bay Area, while partnering with state agencies to seek more federal and state monies for the project	
	3e) Complete and implement the TOD Policy Update to ensure land use supports transit investments and access to transit	<p><b>New, Existing or Restructured Initiatives</b></p>
	3f) Collaborate with local, regional and megaregional partners on major transportation projects to evaluate regional project delivery paradigms and support improved schedule adherence and reduced costs	
	3g) Continue and seek greater strategic alignment of existing programs, including the “Forward” Commute Initiatives person-throughput investments, transit signal priority investments, and Express Lanes Network expansion to support next-generation transit needs	
	3h) Implement the recommendations of the Blue Ribbon Transit Recovery Task Force, including those related to transit priority, connected network planning, and transit network management reforms, among others	
	3i) Identify additional high-performing Express Bus corridors in partnership with CTAs and transit operators	
	3j) Study commute patterns of essential and transit-dependent workers and make recommendations for network modifications to better suit their mobility needs	<p><b>Planning or Research</b></p>



Photo: Karl Nielsen



## Housing

For housing, key implementation actions include providing financial resources and technical assistance through the Regional Housing Technical Assistance and Priority Development Area planning programs. These programs will support local jurisdictions in a myriad of ways as they develop their Housing Element updates and bolster the Plan Bay Area 2050 themes of spurring housing production for people at all income levels and creating inclusive communities. MTC, ABAG and BAHFA are also proposing to launch and deliver a suite of pilot projects that will equitably advance protection, preservation and production of affordable housing. The agencies will also partner with local jurisdictions to study and accelerate the redevelopment of aging malls and office parks.

Table 7-7. Draft implementation actions for the housing element

 <b>Housing</b>		
Themes and Strategies	Draft Implementation Actions	Implementation Vehicle
<b>Protect and Preserve Affordable Housing</b> <ul style="list-style-type: none"> <li>• Further Strengthen Renter Protections Beyond State Law</li> <li>• Preserve Existing Affordable Housing</li> </ul>	4a) Seek new revenues for affordable housing preservation	<b>Advocacy and Legislation</b>
	4b) Advocate for greater renter protections for tenants and low-income communities to prevent unjust evictions and displacement	
	4c) Launch and deliver pilot projects that will focus on developing standardized best practices for tenant protection and anti-displacement programs and launch and deliver a pilot program to pursue new affordable housing preservation strategies, including the restructured Bay Area Preservation Pilot Program	<b>New, Existing or Restructured Initiatives</b>
	4d) Complete and implement the Expanded Regional Housing Portfolio Business Plan	<b>Planning or Research</b>
	4e) Evaluate changes to federal and state policies to increase incentives for and the viability of affordable housing preservation strategies	
<b>Spur Housing Production for People of All Income Levels</b> <ul style="list-style-type: none"> <li>• Allow a Greater Mix of Housing Densities and Types in Growth Geographies</li> <li>• Build Adequate Affordable Housing to Ensure Homes for All</li> <li>• Integrate Affordable Housing in All Major Housing Projects</li> <li>• Transform Aging Malls and Office Parks Into Neighborhoods</li> </ul>	5a) Seek new revenues for affordable housing production and explore better coordination of existing funding streams	<b>Advocacy and Legislation</b>
	5b) Advocate for legislation that enables a greater mix of housing densities and types in Plan Bay Area 2050 Growth Geographies	
	5c) Continue and seek greater strategic alignment of existing programs, including financial resources and REAP-funded technical assistance through the Regional Housing Technical Assistance Program, as well as the PDA Planning and Technical Assistance Grant programs, with goals of providing capacity-enhancing support for local jurisdictions, supporting jurisdictions with plans and policies to increase the supply of affordable housing, enabling local governments to develop context-specific inclusionary zoning and affordable housing incentives, and promoting planning and redevelopment of malls and office parks in PDAs and other Growth Geographies	<b>New, Existing or Restructured Initiatives</b>
	5d) Assist local jurisdictions with initiating plans for all remaining PDAs by 2025	
	5e) Complete and implement the TOD Policy Update to ensure land use supports transit investments and access to transit	
	5f) Launch and deliver pilot projects to facilitate affordable housing production and ensure equitable access to affordable housing, including a regional affordable housing application platform (“Doorway”) and an affordable housing pipeline database	
	5g) Partner with local jurisdictions to accelerate the redevelopment of aging malls and office parks, including a study of redevelopment opportunities and challenges	
	5h) Complete and implement the Expanded Regional Housing Portfolio Business Plan	<b>Planning or Research</b>
	5i) Evaluate changes to federal and state policies to increase incentives for and the viability of affordable housing production strategies	



## Housing

Themes and Strategies	Draft Implementation Actions	Implementation Vehicle
<p><b>Create Inclusive Communities</b></p> <ul style="list-style-type: none"> <li>• Provide Targeted Mortgage, Rental and Small Business Assistance to Equity Priority Communities</li> <li>• Accelerate Reuse of Public and Community-Owned Land for Mixed-Income Housing and Essential Services</li> </ul>	6a) Seek new revenues for rental, mortgage and small-business assistance programs	<b>Advocacy and Legislation</b>
	6b) Launch and deliver pilot projects which will focus on developing standardized regional best practices for tenant protection and anti-displacement programs	<b>New, Existing or Restructured Initiatives</b>
	6c) Partner with local jurisdictions and other stakeholders to develop and roll out a regional homelessness prevention system	
	6d) Continue and seek greater strategic alignment of existing programs, including financial resources and technical assistance through the Regional Housing Technical Assistance Program and PDA Planning and Technical Assistance Grant Program, to plan for public land reuse and to advance residential and mixed-use projects with a large share of affordable housing	
	6e) Complete and implement the Expanded Regional Housing Portfolio Business Plan	<b>Planning or Research</b>
	6f) Partner with local jurisdictions and stakeholders to explore approaches, including potential working groups, regional studies, or other appropriate vehicles, to catalyze the use of public- and community-owned land	



Photo: Karl Nielsen



## Economy

Key implementation actions for Plan Bay Area 2050’s economy element include further exploring the intersection of broadband infrastructure development and transportation project delivery, as well as evaluating funding sources and developing a pilot Priority Production Area Planning and Technical Assistance Program.

Table 7-8. Draft implementation actions for the economy element

 <b>Economy</b>		
Themes and Strategies	Draft Implementation Actions	Implementation Vehicle
<b>Improve Economic Mobility</b> <ul style="list-style-type: none"> <li>• Implement a Statewide Universal Basic Income</li> <li>• Expand Job Training and Incubator Programs</li> <li>• Invest in High-Speed Internet in Underserved Low-Income Communities</li> </ul>	7a) Advocate for greater state support for internet subsidies and a more deliberate state approach to expanding access to broadband for low-income households	<b>Advocacy and Legislation</b>
	7b) Explore support and further research for a potential statewide pilot program related to a universal basic income	
	7c) Engage with local partners on economic recovery from the pandemic as part of the Regional Governmental Partnership for Local Economic Rebound initiative	<b>New, Existing or Restructured Initiatives</b>
	7d) Partner with key stakeholders to conduct regional economic studies related to inclusive post-COVID-19 recovery; megaregional economic needs; and/or closing the “digital divide,” including the intersection of broadband infrastructure development with transportation project delivery	<b>Planning or Research</b>
<b>Shift the Location of Jobs</b> <ul style="list-style-type: none"> <li>• Allow Greater Commercial Densities in Growth Geographies</li> <li>• Provide Incentives to Employers to Shift Jobs to Housing-Rich Areas Well Served by Transit</li> <li>• Retain and Invest in Key Industrial Lands</li> </ul>	8a) Advocate for legislation that enables a greater mix of commercial densities as outlined in Plan Bay Area 2050 Growth Geographies	<b>Advocacy and Legislation</b>
	8b) Complete and implement the TOD Policy Update to ensure land use supports transit investments	<b>New, Existing or Restructured Initiatives</b>
	8c) Continue and seek greater strategic alignment of existing programs, including the PDA Planning and Technical Assistance Grant Program with expanded emphasis on both housing and jobs	
	8d) Evaluate funding sources and develop a pilot Priority Production Area (PPA) Planning and Technical Assistance Program, with a goal of supporting up to five PPAs by 2025	



Photo: Karl Nielsen



## Environment

For Plan Bay Area 2050's environment element, key implementation actions include evaluating and establishing clear roles and responsibilities for sea level rise adaptation planning, funding and implementation. MTC is proposing to restructure its Climate Initiatives Program and its transportation demand management programs to ensure that they can effectively increase in scale over the next five years, particularly given the expanded scope of these strategies in Plan Bay Area 2050. The MTC Priority Conservation Area Program has also been identified for a revamp toward a more data-driven approach that addresses a wider range of policy concerns, including resilience and equity. Finally, the feasibility of expanding the scope and mission of the Bay Area Regional Energy Network (BayREN) to develop a broader range of programs that support water and energy upgrades will be evaluated.

Table 7-9. Draft implementation actions for the environment element

 <b>Environment</b>		
Themes and Strategies	Draft Implementation Actions	Implementation Vehicle
<p><b>Reduce Risks from Hazards</b></p> <ul style="list-style-type: none"> <li>• Adapt to Sea Level Rise</li> <li>• Provide Means-Based Financial Support to Retrofit Existing Residential Buildings</li> <li>• Fund Energy Upgrades to Enable Carbon-Neutrality in All Existing Commercial and Public Buildings</li> </ul>	9a) Seek new revenues for the full range of resilience needs	<p><b>Advocacy and Legislation</b></p>
	9b) Advocate for legislative reforms to better address climate adaptation and resilience goals and establish clear roles and responsibilities for sea level rise adaptation planning, funding and implementation	
	9c) Support multi-benefit, multi-jurisdictional shoreline adaptation efforts, working in partnership with cities, counties and other key partners, with a goal of supporting up to five adaptation planning processes by 2025	<p><b>New, Existing or Restructured Initiatives</b></p>
	9d) Evaluate the feasibility of expanding BayREN’s scope/mission to develop a broader range of program offerings that will support building retrofits and water/energy upgrades	
	9e) Develop a sea level rise funding plan to support the implementation of projects that reduce sea level rise risks to communities, infrastructure and ecology, prioritizing green infrastructure wherever possible	<p><b>Planning or Research</b></p>
	9f) Study and identify Plan Bay Area 2050 Growth Geographies for resilience risk and opportunities, and reform Growth Geography planning guidance accordingly	
9g) Compile detailed assessments for seismic, wildfire, water and energy needs, which will explore financial needs, key relevant initiatives, best practices, key stakeholders, and workforce and technology needs, among other areas		
<p><b>Expand Access to Parks and Open Space</b></p> <ul style="list-style-type: none"> <li>• Maintain Urban Growth Boundaries</li> <li>• Protect and Manage High-Value Conservation Lands</li> <li>• Modernize and Expand Parks, Trails and Recreation Facilities</li> </ul>	10a) Seek new revenues for conservation, parks, recreation and open space, with a special emphasis on improving access and enhancing amenities for Equity Priority Communities	<p><b>Advocacy and Legislation</b></p>
	10b) Advocate for local jurisdictions to respect existing urban growth boundaries to avoid net expansion of areas eligible for urban development	
	10c) Revamp the Priority Conservation Area (PCA) program using a data-driven approach to better prioritize the most critical areas for conservation, while addressing a broader range of policy concerns	<p><b>New, Existing or Restructured Initiatives</b></p>
	10d) Continue and seek greater strategic alignment of existing programs, including implementation of the Regional Advance Mitigation Program (RAMP), the San Francisco Bay Trail, San Francisco Bay Area Water Trail, and Quick-Build Technical Assistance to support Plan Bay Area 2050’s open space and parks goals	



Themes and Strategies	Draft Implementation Actions	Implementation Vehicle
<p><b>Reduce Climate Emissions</b></p> <ul style="list-style-type: none"> <li>• Expand Commute Trip Reduction Programs at Major Employers</li> <li>• Expand Clean Vehicle Initiatives</li> <li>• Expand Transportation Demand Management Initiatives</li> </ul>	11a) Evaluate and seek legislative authority to expand existing Bay Area Commuter Benefits Program in partnership with the Air District	<p><b>Advocacy and Legislation</b></p>
	11b) Seek new revenues for climate, travel demand management and electrification needs	
	11c) Convene local governments, TDM partners and employers to expand relationships, target outreach, support education, discuss metrics and share data	<p><b>New, Existing or Restructured Initiatives</b></p>
	11d) Restructure MTC Climate Initiatives Program and operational TDM programs to ensure they can effectively scale over the next five years, while advancing existing initiatives including local parking policies, Mobility Hubs, Vanpooling, Car Sharing, MTC SHIFT, bikeshare and e-bike incentive programs, electric vehicle incentives and electric vehicle charger programs	
	11e) Evaluate and optimize the design of the Bay Area Commuter Benefits Program to maximize the viability of a regional sustainable commute target and support reductions in single-occupancy-vehicle (SOV) commute trips	<p><b>Planning or Research</b></p>
	11f) Identify the resources and capacities necessary to implement an expanded Bay Area Commuter Benefits Program at both the Air District and MTC	

# Funding Plan Bay Area 2050

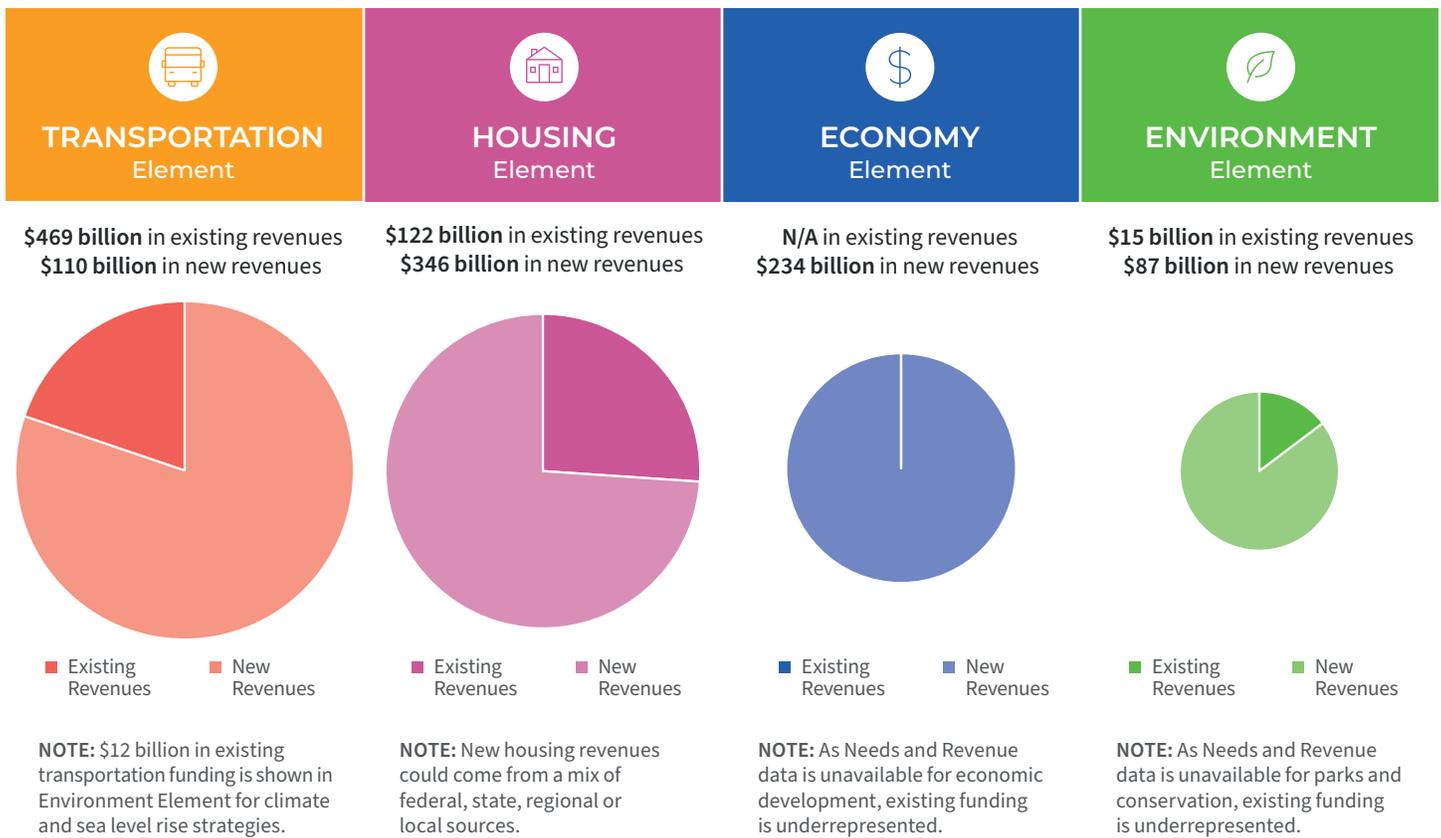
Plan Bay Area 2050 envisions an investment in the Bay Area’s future of approximately \$1.4 trillion between now and 2050. A central element of implementing this vision is understanding the potential cost of carrying out each of these strategies, as well as identifying the resources available to meet those needs. More than \$600 billion in existing revenues have been identified to support Plan Bay Area 2050’s strategies, the majority of which are revenues that fund transportation operations and expansion. Two other existing revenue sources include just over \$100 billion for housing, primarily focused on affordable housing maintenance and production, and \$15 billion to support environmental aims like emissions reductions and sea level rise adaptation.

The inclusion of the environment and economy elements in Plan Bay Area 2050 has broadened the scope of the financial analysis required of the plan, and information on existing funding streams for these areas is less readily available. As such, existing funding identified for these two elements is likely underrepresented, particularly for the economy element, where no existing funding is assumed. These two elements in particular will need further study and partnership to fully understand what funds already exist and where more financial support is needed.

Given the gap between existing and needed revenues, new funding sources will be essential to advancing Plan Bay Area 2050’s strategies. While the specific sources of new revenue have yet to be determined, there are a variety of ways that new funding could be generated. These range from user fees like parking surcharges and all-road tolling to increasing taxes on wealth, income, sales or property.

Bay Area voters and policymakers have stepped up to tackle big regional problems in the past, from the inception of the BART system in the 1950s and 1960s to voter-approved bonds for affordable housing in recent years. In the environment sphere, a revenue-generating measure by the San Francisco Bay Restoration Authority in 2016 passed with 70% approval across the region — the Bay Area’s first-ever tax to prepare for sea level rise.

Figure 7-1. Existing and new revenues



The transportation element, which has the highest cost of Plan Bay Area 2050's four elements, has relatively robust revenues that currently support the existing system's maintenance and operation. New revenues, however, would be needed to fund the plan's more transformational investments and policies, such as the new Link21 transbay rail crossing or regional fare discounts for millions of trips each day. Such revenues would be generated by implementation of specific Plan Bay Area 2050 strategies like freeway pricing and parking fees, as well as a future regional revenue measure. Independent polling conducted in 2019 found over two-thirds of Bay Area residents were in support of a regional revenue measure for transportation. Working with partner agencies to allow Bay Area voters to decide on such a measure is a key near-term implementation action for MTC and ABAG.

Plan Bay Area 2050's housing, environment and economy elements would require a much stronger reliance on new revenues, reflecting the historically limited role of government spending in these areas. For the housing element, the next most costly after transportation, existing local and state programs to support affordable housing production and preservation can be expected to account for around one-quarter of the funding needed to carry out the plan's housing strategies. Plan Bay Area 2050 intensifies the focus on capital investments for affordable housing production and preservation, requiring a substantial increase in funding to match the scale of the crises the Bay Area must now address.

Thinking ahead to 2050, addressing the challenges that stand in the way of equitable economic development and environmental resilience would require significantly more financial resources than would be expected should today's funding paradigms continue. For example, an economy strategy to implement a universal basic income would require an estimated \$200 billion, reflecting a significant break from current levels of investment in economic development. Similarly, current resources for environmental strategies fall short of what would be needed to carry out the proactive approach to open space expansion, sea level rise adaptation and climate emissions reductions laid out in Plan Bay Area 2050.

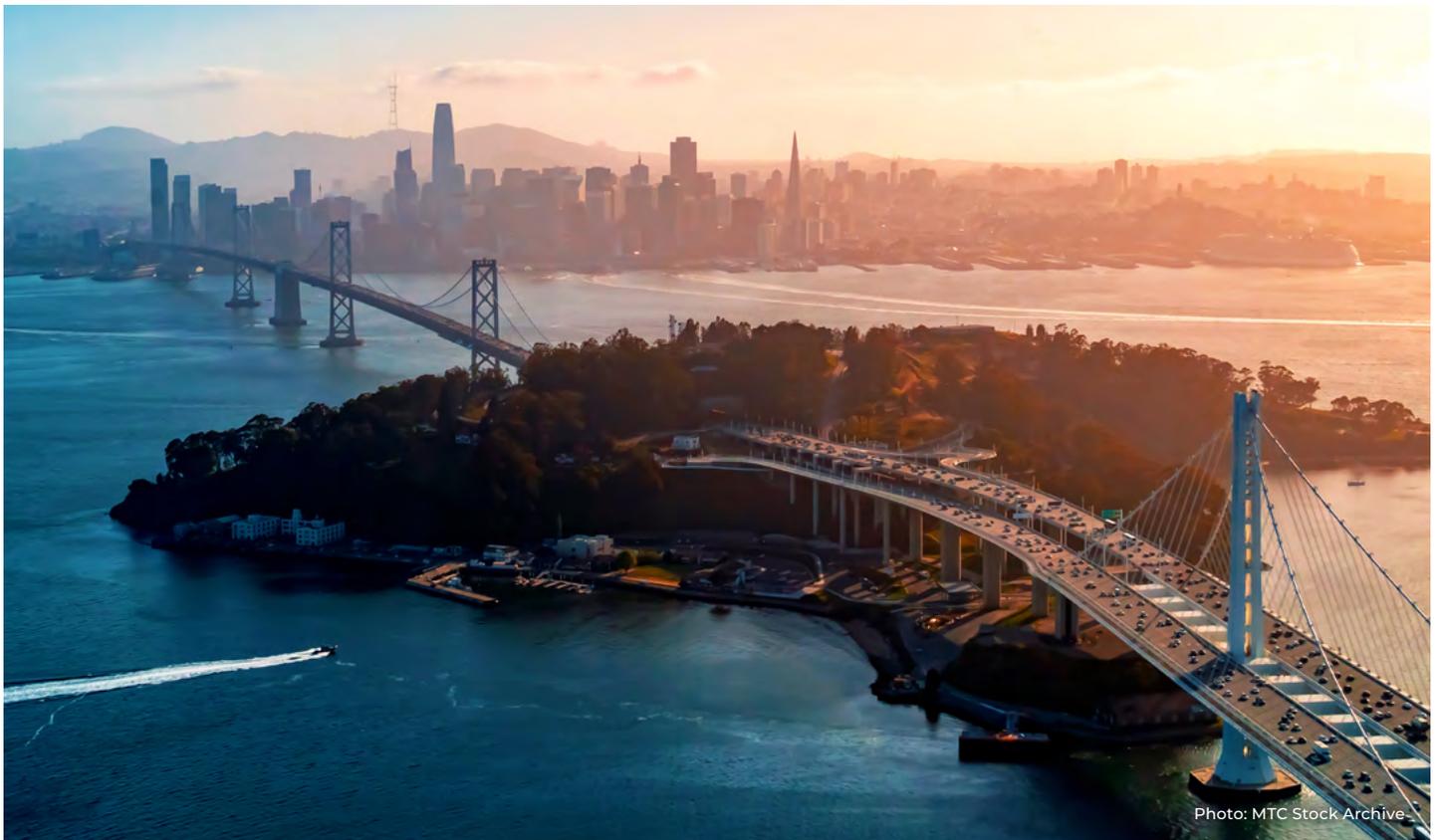


Photo: MTC Stock Archive

# PLAN BAY AREA 2050 IMPLEMENTATION PLAN

## Strategic Partnership Opportunities

As discussed earlier in this chapter, this Draft Implementation Plan focuses on implementation actions that MTC/ABAG propose to commit to over the next one to five years. The next and final phase of the Implementation Plan process — known as the Partnership Phase — will expand the focus beyond MTC/ABAG to identify the partnerships necessary to move the strategies forward. Slated for summer 2021, this phase will yield a broader range of actions and potential commitments.

In preparation for this phase of the Implementation Plan process, select strategic partners have been identified as part of the Draft Plan Bay Area 2050, including:

- Bay Area Air Quality Management District (Air District)
- Bay Conservation and Development Commission (BCDC)
- Business Community
- County Transportation Agencies (CTAs)
- Equity and Environmental Advocates/Non-Profits
- Local Jurisdictions
- State Agencies
- Transit Agencies

It is important to note this list of partners and partnership areas is not exhaustive and reflects a shortlist of high-priority focus areas where MTC/ABAG and listed partners can work to advance adopted Plan Bay Area 2050 strategies over the next one to five years. Additional partnership opportunities, potentially including mutual commitments and more specific role recommendations for partners, will be further explored during the Partnership Phase.



Photo: Karl Nielsen

# BAY AREA AIR QUALITY MANAGEMENT DISTRICT (AIR DISTRICT)

As the regional air pollution control agency for the nine-county Bay Area, the Air District is tasked with overseeing policies and adopting regulations to control stationary sources of air pollution. The Air District and MTC/ABAG collaborate on initiatives including electric vehicle infrastructure and incentives, freight and goods movement, and the Commuter Benefits Program, which provides incentives for commuters to take transit or vanpool to work. Given the significantly expanded climate strategies in Plan Bay Area 2050, MTC/ABAG would be interested in continuing and growing their partnerships with the Air District on a range of efforts that will encourage mode shift from single-occupancy vehicles, reduce greenhouse gas emissions and improve air quality, with a specific focus on supporting the needs of Equity Priority Communities, AB 617 communities<sup>1</sup> and other communities over-burdened by pollution.

High-priority initiative areas for greater coordination include expanding the Commuter Benefits Program to support sustainable commute targets, expanding vehicle electrification efforts and accelerating building decarbonization efforts at the regional level. For the Commuter Benefits Program, MTC/ABAG would like to work collaboratively with the Air District to convene local partners and employers and build greater regional consensus for sustainable commute targets, while also working to optimize the program’s design and identify the resources and authority needed to expand the program. Given the significantly expanded clean vehicle incentives and infrastructure envisioned by Plan Bay Area 2050, the agencies will also have to work closely to restructure existing vehicle electrification initiatives to ensure they can scale effectively. Finally, the Air District will be an essential implementation partner for the plan’s building decarbonization strategies, given their existing programs, funding and authority to regulate stationary pollution sources.

PARTNERSHIP FOCUS STRATEGIES	
<b>Transportation</b>	T2
<b>Economy</b>	EC6
<b>Environment</b>	EN2 EN3 EN7 EN8 EN9

<sup>1</sup> More information on AB 617 may be found on the CARB website at <https://ww2.arb.ca.gov/capp>

## BAY CONSERVATION AND DEVELOPMENT COMMISSION (BCDC)

With planning, permitting and enforcement authorities over the San Francisco Bay, BCDC has a major role in preparing for and adapting to rising sea levels caused by climate change. MTC/ABAG have partnered with BCDC on numerous projects and initiatives, including the Adapting to Rising Tides program, the San Francisco Bay Trail, the San Francisco Bay Area Water Trail, the San Francisco Bay Area Seaport Plan, various shoreline-adjacent transportation projects and, most recently, the ongoing Bay Adapt process.

A major partnership priority for MTC/ABAG is to work collaboratively with BCDC to establish clear roles and responsibilities for sea level rise adaptation planning, funding and implementation through the Bay Adapt and Implementation Plan processes this year. Given that the sea level rise adaptation space includes various responsibilities among many different public, private and nonprofit entities, there is a crucial short-term opportunity to develop clarity on lead and partner entities for these adaptation areas. Additional partnership focus areas for sea level rise adaptation include raising revenues to support planning and adaptation projects, pursuing joint legislative advocacy, developing a sea level rise funding plan for implementation, and continually updating planning guidelines informed by the latest scientific guidance.

PARTNERSHIP FOCUS STRATEGIES	
<b>Environment</b>	EN1

## BUSINESS COMMUNITY

The Bay Area business community encompasses a broad range of voices, including large and small businesses, employer associations, advocacy groups and economic development associations. This community has an essential role in ensuring that the Bay Area's economy is vibrant, innovative and sustainable, as well as an inclusive engine of economic opportunity for all Bay Area residents. As such, businesses have been important stakeholders in many MTC/ABAG-led efforts over the years, from megaregional transportation projects to the development of the CASA Compact to address the Bay Area's chronic housing affordability challenges.

MTC/ABAG expect that the business community will continue to be a key implementation partner moving forward across a number of Plan Bay Area 2050 strategies, touching each of the plan's four core elements. MTC/ABAG would especially welcome the business community's engagement on the region's transportation and housing needs — whether supporting future potential regional revenue measures, advocating for major regional and megaregional transportation projects and initiatives, or advancing production of both market-rate and affordable housing in Plan Bay Area 2050 Growth Geographies. Other key partnership focus areas include providing leadership and expertise on regional economic recovery efforts, as well as ongoing engagement to expand commute trip reduction programs at major employers.

PARTNERSHIP FOCUS STRATEGIES	
<b>Transportation</b>	T3
	T4
	T5
	T10
	T11
	T12
<b>Housing</b>	H3
	H4
	H6
	H7
<b>Economy</b>	EC2
	EC3
	EC4
	EC5
	EC6
<b>Environment</b>	EN1
	EN3
	EN7
	EN9

## COUNTY TRANSPORTATION AGENCIES (CTAs)

The region’s nine CTAs deliver transportation projects and programs to improve access and mobility for the residents of their counties, in addition to providing technical assistance to local jurisdictions. As the transportation planner, funder and coordinator for the nine-county Bay Area, MTC has long-standing relationships with CTAs and a strong history of collaborating to meet the region’s most pressing transportation needs.

Some of the most critical areas for partnership between MTC and CTAs involve coordination on a wide range of project delivery needs and considerations, facilitating the Bay Area’s transportation recovery from the COVID-19 pandemic — including through implementation of the recommendations of the Blue Ribbon Transit Recovery Task Force — and partnering on overall GHG emissions reduction efforts. In the project delivery space, key focus areas will involve working to seek and secure revenues to fill transportation funding gaps, including authorization of a potential regional revenue measure. Further collaboration is necessary to improve schedule adherence, reduce project costs, and evaluate project delivery paradigms for major capital projects. With respect to GHG emissions reduction efforts, it will be essential for CTA-led transportation plans to more closely align with Plan Bay Area 2050, including a stronger emphasis on countywide development patterns.

Other related implementation priorities involve partnering in a study to equitably advance roadway pricing, furthering implementation of the Express Lanes Strategic Plan and accelerating Complete Streets and Vision Zero improvements, including through technical assistance to local jurisdictions. The Partnership Phase will also provide an opportunity to discuss how best to advance select housing, economy and environment strategies, including engagement on the development of a regional sustainable commute target and the restructuring of MTC’s operational TDM programs.

PARTNERSHIP FOCUS STRATEGIES	
<b>Transportation</b>	T1
	T2
	T3
	T4
	T5
	T6
	T7
	T8
	T9
	T10
	T11
	T12
<b>Housing</b>	H3
	H8
<b>Economy</b>	EC3
	EC4
	EC5
	EC6
<b>Environment</b>	EN1
	EN7
	EN8
	EN9

## EQUITY AND ENVIRONMENTAL ADVOCATES/NON-PROFITS

The Bay Area’s unparalleled community of equity and environmental advocates and non-profits brings a wealth of knowledge and expertise to implement Plan Bay Area 2050’s strategies. In addition to deep experience engaging with communities and conducting high-impact advocacy campaigns at the local, regional and state levels, these groups have been active stakeholders in many MTC/ABAG-led initiatives over the years. These include previous iterations of Plan Bay Area, the One Bay Area Grant (OBAG) Program, the PCA Program and CASA, among many others.

MTC/ABAG would welcome continued partnership and engagement from advocates and non-profits in several select focus areas. These include partnering in efforts to reexamine the Equity Priority Communities framework and methodology, as well as providing input on the development of the Expanded Regional Housing Portfolio Business Plan, supporting BAHFA pilot programs, and discussing the vision for a regional public lands network. MTC/ABAG would also like to partner in the revisioning of the PCA program to better incorporate science, resilience and equity, among other areas, in addition to continuing dialogue regarding transit service restoration in the post-COVID environment.

From a broader perspective, a major consideration across many of the identified Plan Bay Area 2050 strategies involves coordinated public engagement to support the needs of Equity Priority Communities. MTC/ABAG intends to continue, and to strengthen, engagement efforts in collaboration and partnership with equity and environmental advocates and non-profits.

PARTNERSHIP FOCUS STRATEGIES	
<b>Transportation</b>	T1
	T2
	T3
	T4
	T5
	T8
	T9
<b>Housing</b>	T10
	H1
	H2
	H4
	H5
	H7
<b>Economy</b>	H8
	EC1
	EC2
<b>Environment</b>	EC3
	EN1
	EN2
	EN4
	EN5
	EN6

# LOCAL JURISDICTIONS

The Bay Area’s nine counties and 101 cities and towns have a variety of authorities and capacities to support implementation of Plan Bay Area 2050, especially given local control of land use decisions. In addition to their housing and local planning responsibilities, local jurisdictions often have public works, transportation, economic and workforce development, and/or parks and recreation departments that are on the frontlines of delivering or operating projects, initiatives and programs. Local jurisdictions have been key partners in many MTC/ABAG-led processes to date, including RHNA, the PDA Program and the PCA Program, among others.

MTC/ABAG look forward to expanding existing relationships and initiatives and further building upon the recent successes of the REAP and LEAP programs to ensure implementation success across all four core elements of the plan. High-priority implementation partnership areas include local jurisdictions taking a lead role in allowing a greater mix of housing and commercial densities in Plan Bay Area 2050 Growth Geographies, as well as in working to strengthen renter protections and redevelop aging malls and office parks. Close collaboration also would be required to align local land use decisions with regional efforts to preserve existing affordable housing and produce affordable housing.

Local jurisdictions will have a key role in deploying community-identified transportation enhancements, such as bus-only lanes or transit signal priority, as well as advancing planning and project delivery of critical bicycle and pedestrian facilities. MTC/ABAG would further welcome the participation and support of local jurisdictions in envisioning an equitable economic recovery, as well as in a wide range of environmental areas including developing local shoreline adaptation plans, pursuing decarbonization strategies for public buildings and creating a supportive regulatory environment for electric vehicle charging infrastructure.

PARTNERSHIP FOCUS STRATEGIES	
<b>Transportation</b>	T2
	T6
	T7
	T8
	T9
	T10
<b>Housing</b>	H1
	H2
	H3
	H4
	H5
	H6
	H7
	H8
<b>Economy</b>	EC1
	EC2
	EC3
	EC4
	EC5
	EC6
<b>Environment</b>	EN1
	EN2
	EN3
	EN4
	EN5
	EN6
	EN8
	EN9

## STATE AGENCIES

State agencies<sup>2</sup> are key funding partners across all areas of Plan Bay Area 2050, with important roles in establishing the overall policy and regulatory environment. MTC/ABAG have longstanding relationships with partners such as Caltrans, the Air Resources Board, Housing and Community Development, the California Transportation Commission, and the California State Transportation Agency, among others.

MTC/ABAG look forward to deepening and strengthening these relationships as the agencies work in concert with the state to advance key regional priorities while achieving statewide policy goals. This includes working with state partners to align resources and policy to effectively support the achievement of shared plan implementation priorities through targeted investments such as mobility hubs, Priority Development Area plans and more. Additional high-priority focus areas for transportation include advancing major capital projects through statewide funding programs, as well as facilitating the creation of healthy and safe streets through speed limit reductions and active transportation project streamlining.

On housing, greater technical assistance for local and regional partners in areas such as housing preservation will be necessary in order to meet statewide policy goals. Additional key focus areas where state leadership will be required include simplifying and streamlining application processes for state housing funding sources, as well as in broadening high-speed internet access in underserved communities, leveraging transportation project delivery opportunities where appropriate. Finally, flexible and dedicated funding, as well as more detailed guidance on how to align with recent statewide executive orders and policy goals, will help advance critical environmental strategy areas, ranging from climate adaptation and resilience to parks and conservation.

PARTNERSHIP FOCUS STRATEGIES	
<b>Transportation</b>	T5
	T6
	T8
	T9
	T10
	T11
<b>Housing</b>	T12
	H1
	H2
	H3
	H4
	H6
<b>Economy</b>	H7
	H8
<b>Economy</b>	EC1
	EC3
<b>Environment</b>	EN1
	EN2
	EN3
	EN5
	EN6
	EN8

<sup>2</sup> State agencies include the Air Resources Board, Caltrans, the California Transportation Commission, the California State Transportation Agency, the California High-Speed Rail Authority, the Governor’s Office of Business and Economic Development, the California Department of Housing and Community Development, the California Strategic Growth Council, the Governor’s Office of Planning and Research, the California Natural Resources Agency, and the California Earthquake Authority, among others.

# TRANSIT AGENCIES

The region’s more than two dozen transit agencies maintain and operate trains, buses and ferries, while delivering transit capital projects to optimize and expand the system. MTC and transit agencies have long partnered to support public transportation and the many residents who rely on transit for a broad range of their transportation needs.

The most pressing and immediate partnership area between MTC and transit agencies involves facilitating the recovery of the Bay Area transit systems from the COVID-19 pandemic. The ongoing work of the Blue Ribbon Transit Recovery Task Force looms large here and implementing the Task Force’s ultimate recommendations will be critical. These recommendations are expected to address many areas that will ensure Bay Area transit comes back stronger than ever, including fare policy, connected network planning, transit priority and transit network management reforms, among others.

An additional priority focus area will involve partnering on project delivery needs and considerations. Most important will be positioning major capital projects for success on a regional level, with an additional focus on improving schedule adherence, reducing project costs and evaluating project delivery paradigms.

Advancing select housing, economy and environment strategies will also be critical for MTC and transit agencies. Potential discussion areas during the Partnership Phase may include topics such as supporting transit-oriented housing and commercial developments, utilizing vacant public agency land for housing, and protecting transportation assets from sea level rise.

PARTNERSHIP FOCUS STRATEGIES	
<b>Transportation</b>	T1
	T2
	T3
	T4
	T5
	T10
	T11
T12	
<b>Housing</b>	H3
	H8
<b>Economy</b>	EC3
	EC4
	EC5
<b>Environment</b>	EN1
	EN7



Photo: Karl Nielsen

## The Path Ahead

Ongoing engagement across all levels of government, as well as with key planning partners, civic organizations and Bay Area residents, will further shape the Draft Implementation Plan as it moves toward offering a complete set of implementation recommendations for the final Plan Bay Area 2050 document, scheduled for adoption in fall 2021. The Partnership Phase this summer will include:

1. small group meetings and focused discussions,
2. continued partner engagement (including webinars and targeted outreach), and
3. the official Draft Plan Bay Area 2050 outreach and comment period.

Visit the Implementation Plan page on the Plan Bay Area 2050 website<sup>3</sup> for more details, including specific future engagement opportunities. The final Implementation Plan, to be released in fall 2021 as part of the final Plan Bay Area 2050, will incorporate findings from the partnership phase and will also include timelines for proposed implementation actions.

MTC and ABAG can provide strong regional leadership on some of the most pressing housing, economic, transportation and environmental challenges facing the Bay Area over the next 30 years, but regional government alone cannot achieve any of the plan's bold and visionary ideas. Near-term actions set the stage for crucial relationships that must be developed and maintained for decades to come. Equity and resilience must continue to be front and center in all decisions that move the plan's strategies forward. By emphasizing partnership and collaboration — while championing equity and resilience — regional leadership lays the groundwork for successfully implementing all of Plan Bay Area 2050's strategies, resulting in a more affordable, diverse, connected, healthy and vibrant region for every Bay Area resident.



3 <https://www.planbayarea.org/2050-plan/implementation-plan>



## SUPPLEMENTAL REPORTS

The Draft Plan Bay Area 2050 supplemental reports provide more detail on specific subject areas covered in the plan.

### **Draft Air Quality Conformity and Consistency Report** *(available July 2021)*

The Draft Air Quality Conformity and Consistency Report demonstrates that Plan Bay Area 2050 and the Amended 2019 Transportation Improvement Plan conform with the latest U.S. Environmental Protection Agency transportation conformity regulations and the Bay Area Conformity State Implementation Plan.

### **Draft Environmental Impact Report** *(available June 2021)*

The Draft Environmental Impact Report (EIR) for Plan Bay Area 2050 discloses potential environmental impacts of the plan's projected growth and impacts associated with implementing the plan's strategies across the realms of housing, transportation, the economy and the environment, including the projected land use and assumed transportation projects. Where a significant or potentially significant impact may occur, mitigation measures are provided along with the responsible party and timing for implementation.

### **Draft Equity Analysis Report**

The equity analysis for Plan Bay Area 2050 reflects on the equity lens approach used in the planning process and shares forecasted outcomes of the plan and its impact on existing disparities in the region. The analysis also demonstrates MTC's compliance as a metropolitan planning organization (MPO) with federal requirements related to Title VI and environmental justice in the Regional Transportation Plan (RTP) development process.

### **Draft Forecasting and Modeling Report**

This report presents a technical overview of the demographic, economic, land use and travel simulation modeling that supported the development of Plan Bay Area 2050. This includes documentation of the inputs, assumptions and processes used to forecast future patterns and behavior, as well as a discussion of how these items varied for each EIR Alternative. The report also details the regional forecast of jobs, population and housing growth by jurisdiction and county.

## Draft Implementation Plan Briefs

This document is a series of one-page briefs for each of the 35 strategies included in Plan Bay Area 2050. Each brief includes an assessment of strategy success factors, a recommended MTC/ABAG implementation role, draft MTC/ABAG implementation actions, as well as an overall summary plus key considerations moving forward. These draft briefs focus on actions that MTC/ABAG are proposing to commit to; the final Implementation Plan will expand the focus beyond MTC/ABAG and further develop the partnerships and commitments required to move the strategies forward, as well as proposed timelines for identified implementation actions.

## Draft Native American Tribal Outreach and Government-to-Government Consultation Report

State and federal regulations require MTC and ABAG to conduct government-to-government consultation with tribal governments of federally recognized Native American tribes regarding MTC and ABAG's planning and programming activities, as well as to analyze and avoid or mitigate impacts to Native American cultural resources under the California Environmental Quality Act (CEQA). This report documents MTC and ABAG's engagement and government-to-government consultation activities with the region's Native American tribes during the preparation of Plan Bay Area 2050.

## Draft Performance Report

This report presents a performance assessment of Plan Bay Area 2050, including stress-testing of individual strategy and transportation project performance under different external forces as part of the Horizon initiative and an evaluation of the package of 35 strategies that make up the Draft Plan and accompanying EIR Alternatives. Performance assessment emphasizes the plan's cross-cutting themes of resilience and equity, enabled by new and improved techniques to assess equity impacts. This report also contains a summary of federal transportation performance monitoring activities.

## Draft Public Engagement Report

A comprehensive program of public involvement activities is a key part of MTC and ABAG's long-range plan development process for Plan Bay Area 2050. This report details outreach and engagement activities with the public, local government officials and partners, and includes a federal Public Participation Plan that describes the public's involvement in the plan's development and engagement activities. The engagement activities ranged from one-on-one meetings to multi-lingual workshops to public hearings with the public, community-based organizations, non-profits and private sector partners in each of the region's nine counties. Due to the COVID-19 pandemic, virtual and telephone activities were incorporated into the public engagement program for Plan Bay Area 2050.

## Draft Technical Assumptions Report

This report details the federal, state, regional and local revenue assumptions for the period covered by Plan Bay Area 2050 (2021-2050) across the areas of transportation, housing, the economy and the environment. Additionally, it documents the detailed description and assumed costs of all 35 Plan Bay Area strategies across the aforementioned four elements, including a detailed description of the estimated funding needed to operate and maintain the existing system of local streets and roads, highways, local and regional bridges and transit.

## Draft Transportation Project List

The Transportation Project List individually lists the projects and programs included in Plan Bay Area 2050.

## Draft Statutorily Required Plan Maps

This report provides a compendium of all maps required by state statute not included in the primary plan document.

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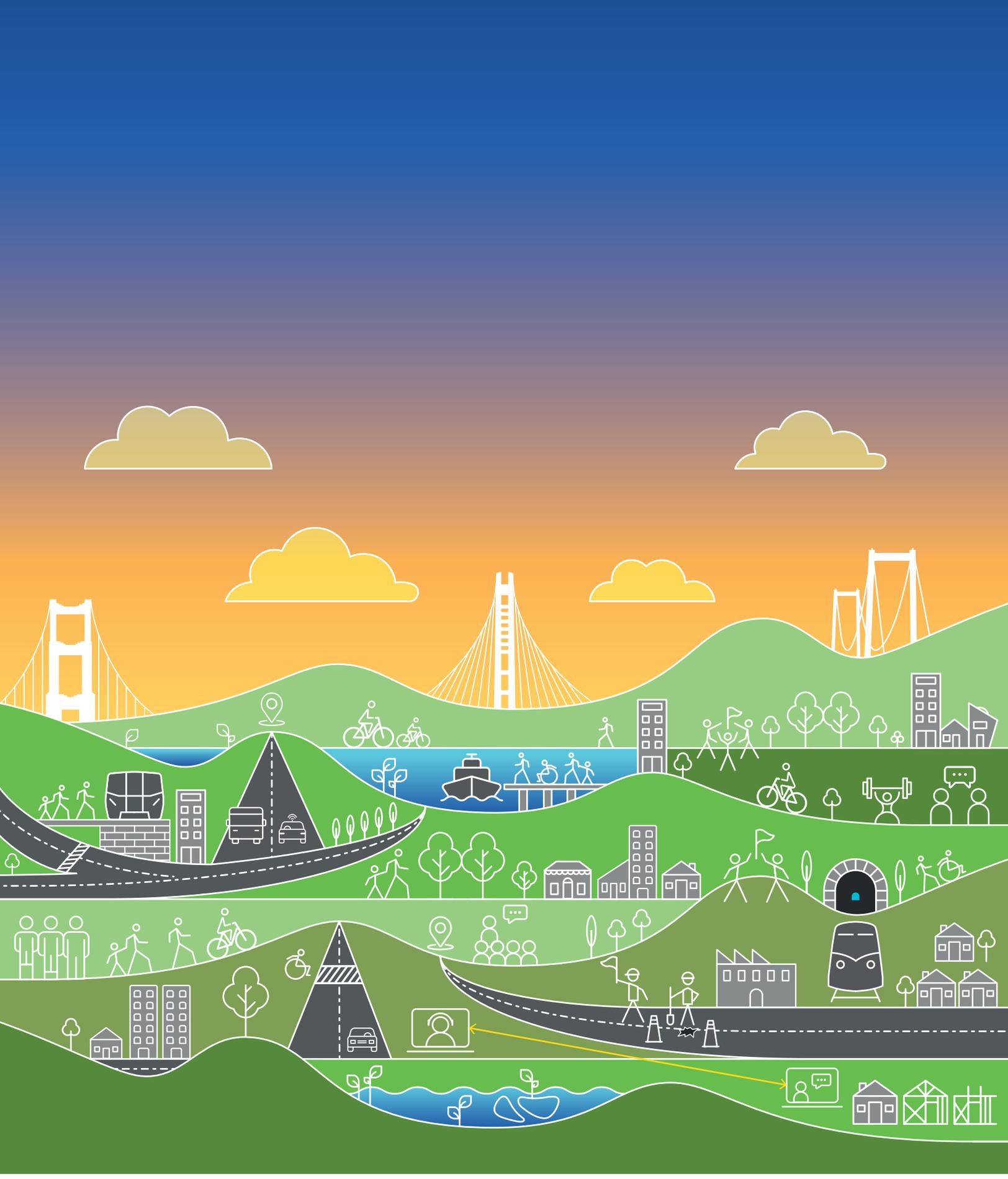
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For more information about the future for the Bay Area, visit us at [planbayarea.org](http://planbayarea.org).



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