

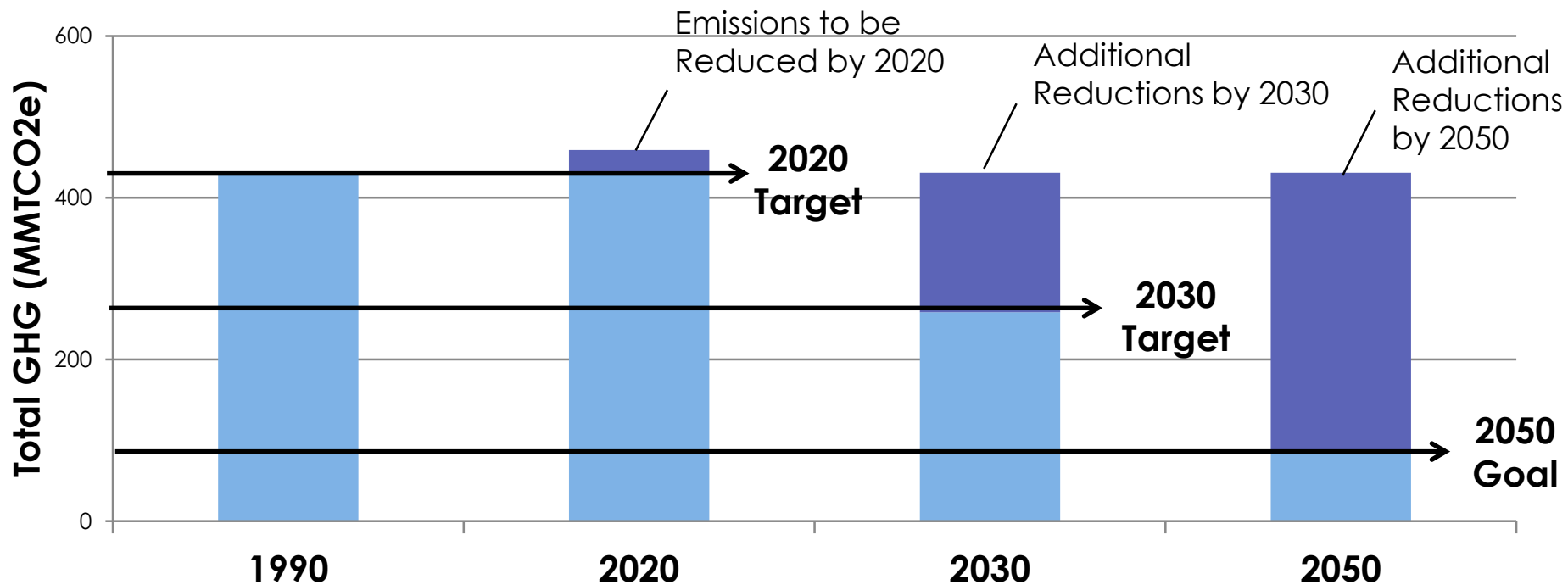


2017 Scoping Plan Update

The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target

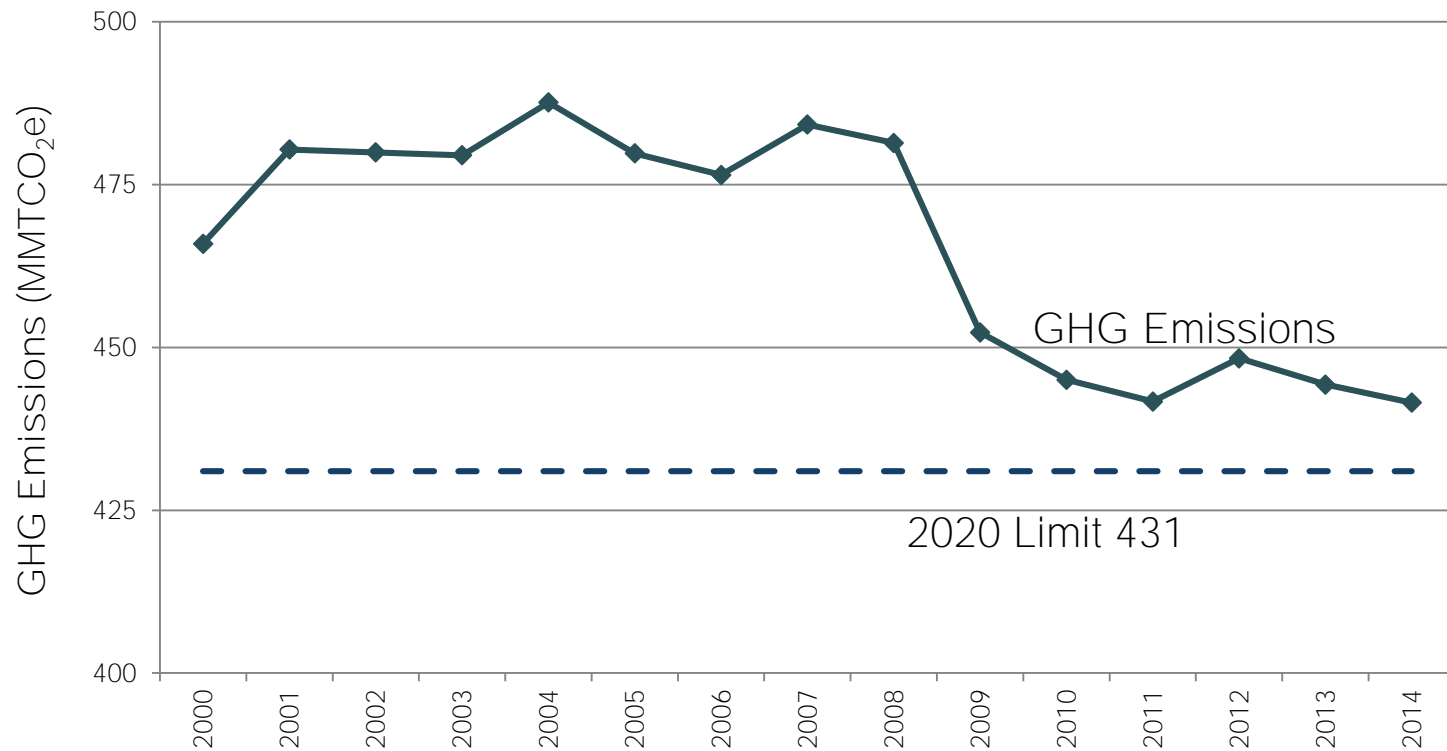


GHG Reduction Targets



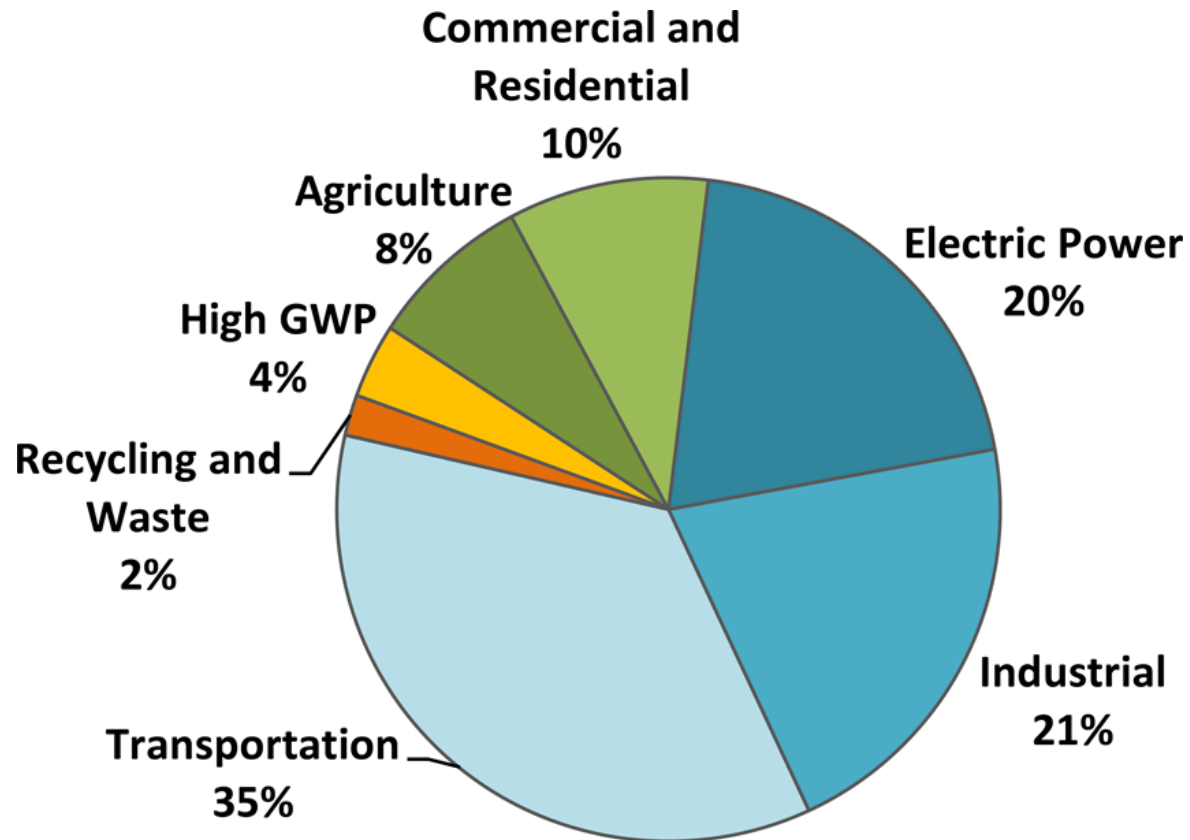
Note: MMT = Million Metric Tons

Progress to Date Reducing GHGs



Current modeling shows GHG emissions will be below the 2020 target

GHG Emission Sources by Sector



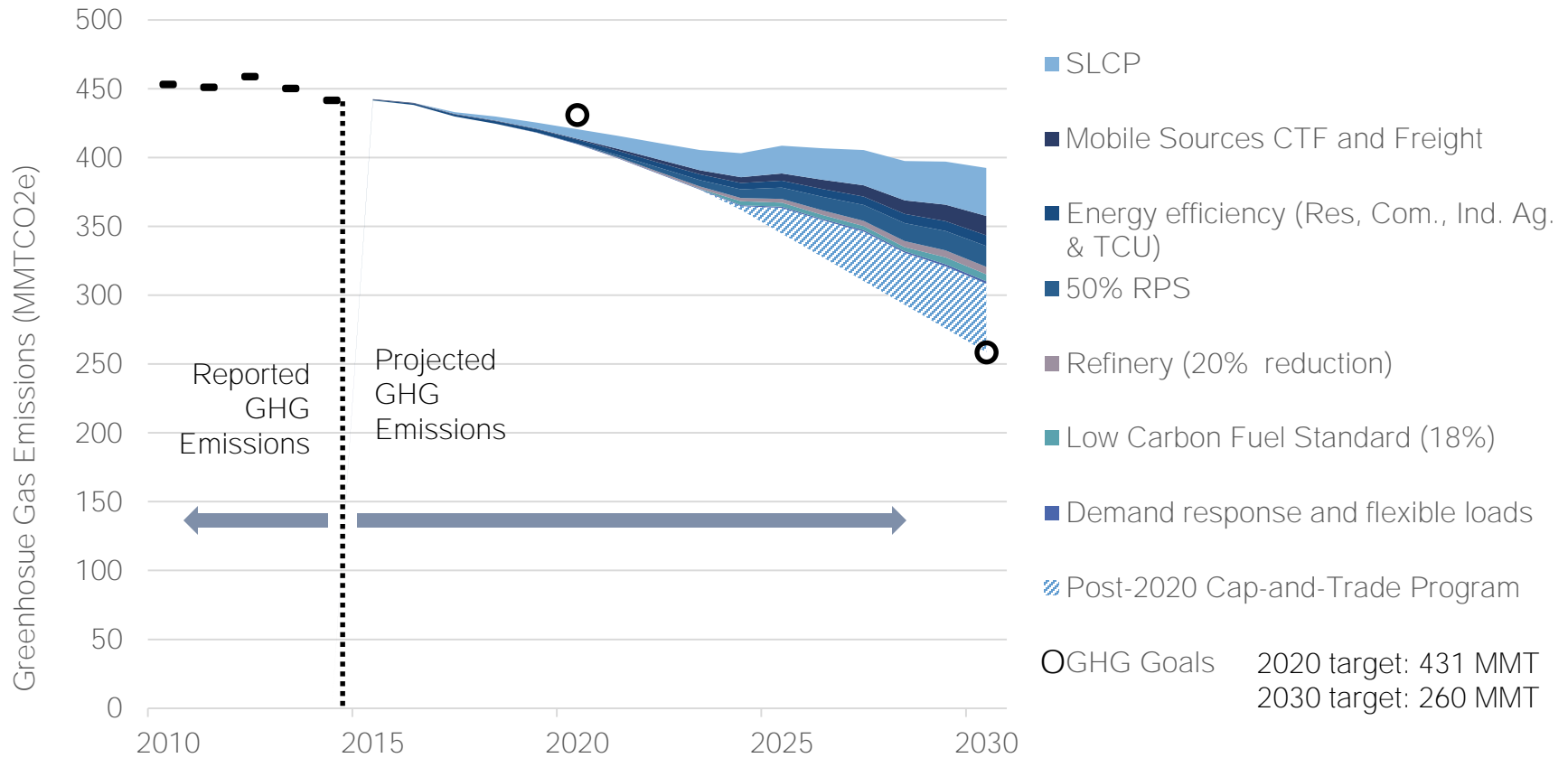
2014 Total CA Emissions: 441.5 MMTCO₂e

<https://www.arb.ca.gov/cc/inventory/data/data.htm>

Objectives for Scoping Plan Update

- ▣ Achieve 2030 target
- ▣ Provide direct GHG emissions reductions
- ▣ Provide air quality co-benefits
- ▣ Minimize emissions “leakage” – increase to non-CA GHG emissions
- ▣ Support climate investment in disadvantaged communities
- ▣ Protect public health
- ▣ Facilitate sub-national and national collaboration
- ▣ Support cost-effective and flexible compliance
- ▣ Support Clean Power Plan and other federal action

Proposed Scoping Plan Measures



Proposed Scoping Plan Scenario

- ▣ *SB 350 - increase renewable energy and energy efficiency
- ▣ *SB 1383 - Short-Lived Climate Pollutant Plan
- ▣ *SB 375 – support sustainable community development
- ▣ *Mobile Source Strategy - help State achieve its federal and state air quality standards
- ▣ *Low Carbon Fuel Standard
- ▣ *Sustainable Freight Action Plan
- ▣ New Refinery Efficiency Measure for All Facilities in the Sector
 - Fewer GHG emissions per barrel of a refined product
 - 20 percent GHG reductions by 2030
- ▣ Post-2020 Cap-and-Trade Program
 - ▣ Economy-wide cap
 - ▣ Trading and offset usage limit of 8 percent

*Existing commitments included in any Scoping Plan Update

Alternatives Considered

- ▣ No Cap-and-Trade
 - ▣ Enhanced existing commitments and prescriptive measures
 - ▣ Higher cost than proposed plan and uncertainty of not meeting 2030 target
- ▣ Carbon Tax
 - ▣ Existing commitments & tax at the social cost of carbon (\$50/tonne in 2030)
 - ▣ Difficult to set correct tax to meet target & uncertainty of not meeting 2030 target
- ▣ All Cap-and-Trade
 - ▣ Existing commitments; no enhancements to LCFS and no refinery sector measure
 - ▣ Estimated lower direct costs than proposed plan
- ▣ Cap and Tax
 - ▣ Tax all GHG emissions that occur
 - ▣ Fuel suppliers, gas and electricity utilities, and industry would each reduce GHG emissions by about set percent each year
 - ▣ Highest direct costs than proposed plan and all alternatives considered

Local Action

- Opportunities to support State climate goals
- Recommended community-wide goal of 6 MTCO_{2e} per capita by 2030 and 2 MTCO_{2e} per capita by 2050 implemented through Climate Action Plan
- Beyond plan level actions, local governments can support State goals through individual projects via CEQA
 - Projects with emissions in excess of threshold, incorporate all feasible mitigation

Summary of Economic Analysis

- Under the Proposed Plan, the California economy, employment and personal income will continue to grow.
- The estimated impact on California GDP is on the order of half of one percent of the estimated \$3.4 trillion economy in 2030.
 - The Proposed Plan will result in a 3-month delay in reaching the GDP projected under the Reference, or no action, scenario.
 - Annual growth rates in GDP, employment, and personal income are essentially unchanged under the Proposed Plan when compared to the Reference, or no action, scenario
- The estimated annual cost to a California household ranges from \$30 to \$214 dollars in 2030 depending on the Cap-and-Trade allowance price.
 - This impact represents less than one percent of average household expenditures in 2030.

Schedule

- ▣ Late May/Early June 2017: Release final Scoping Plan
- ▣ June 2017: Final Board consideration

Plan BayArea 2040

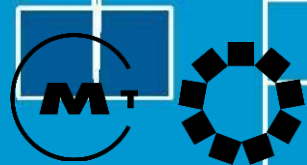
DRAFT PLAN &
DRAFT EIR

May 18, 2017

*BAAQMD Climate
Protection Committee*

**Ken Kirkey, MTC
Planning Director**

AGENDA: 5

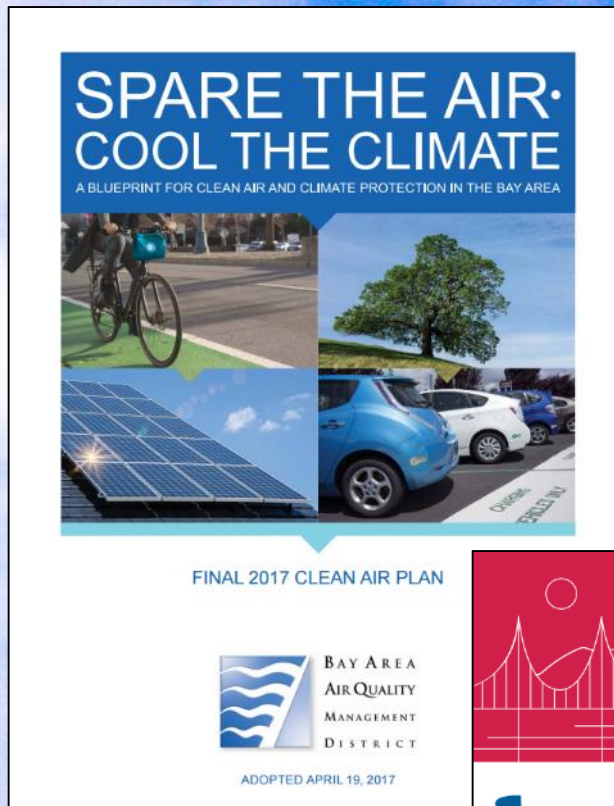


Plan
BayArea
2040

Plan Bay Area 2040 establishes a 24-year regional vision for growth and investment – while at the same time exceeding the region’s statutory greenhouse gas reduction target.



How does Plan Bay Area 2040 fit in the context of BAAQMD's recently adopted 2017 Clean Air Plan?



Put simply, Plan Bay Area 2040 is "one piece of the puzzle". Additional policies and investments beyond the Draft Plan would be needed to accelerate towards BAAQMD's more ambitious targets.



*Plan Bay Area 2040 is a **fiscally-constrained** transportation and land use plan, focused on achieving **per-capita** greenhouse gas emissions reduction of **15 percent** by 2035.*

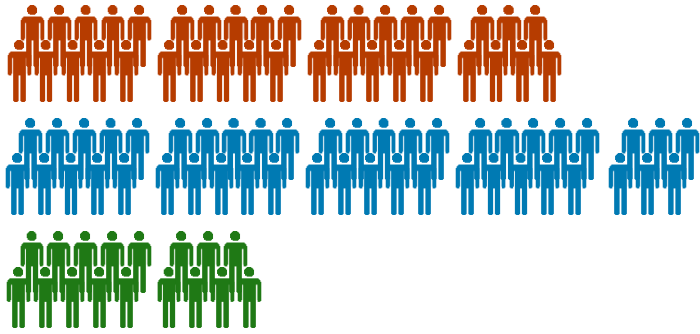
Plan
BayArea
2040

Expanding carbon-free transportation alternatives is critical. **But tackling the housing crisis is perhaps even more important, both to reduce GHG emissions and to make the region more equitable.**

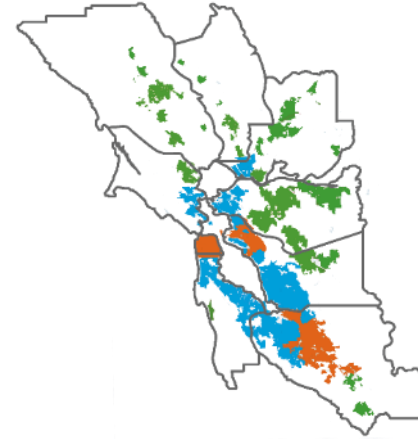


Our economy is booming – but we're not building enough housing.

Jobs added from 2011 through 2015:
501,000



Housing units built from 2011 through 2015:
65,000



Big 3 Cities:

1 housing unit built for every **7 jobs** created

Bayside Cities and Towns:

1 housing unit built for every **15 jobs** created

Inland, Coastal, Delta Cities and Towns:

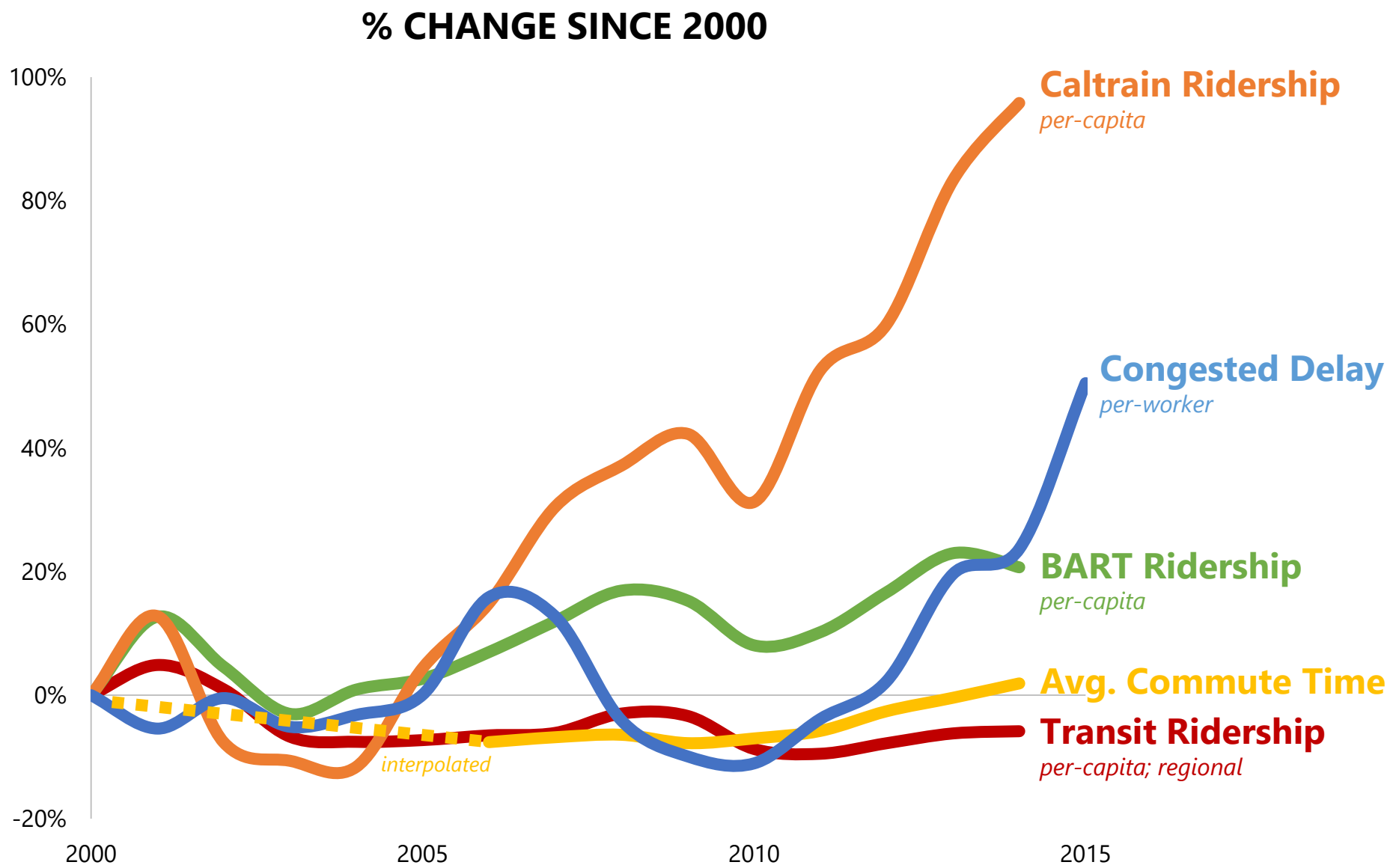
1 housing unit built for every **3 jobs** created

Regionally: 1 house was built for every **8 jobs** created

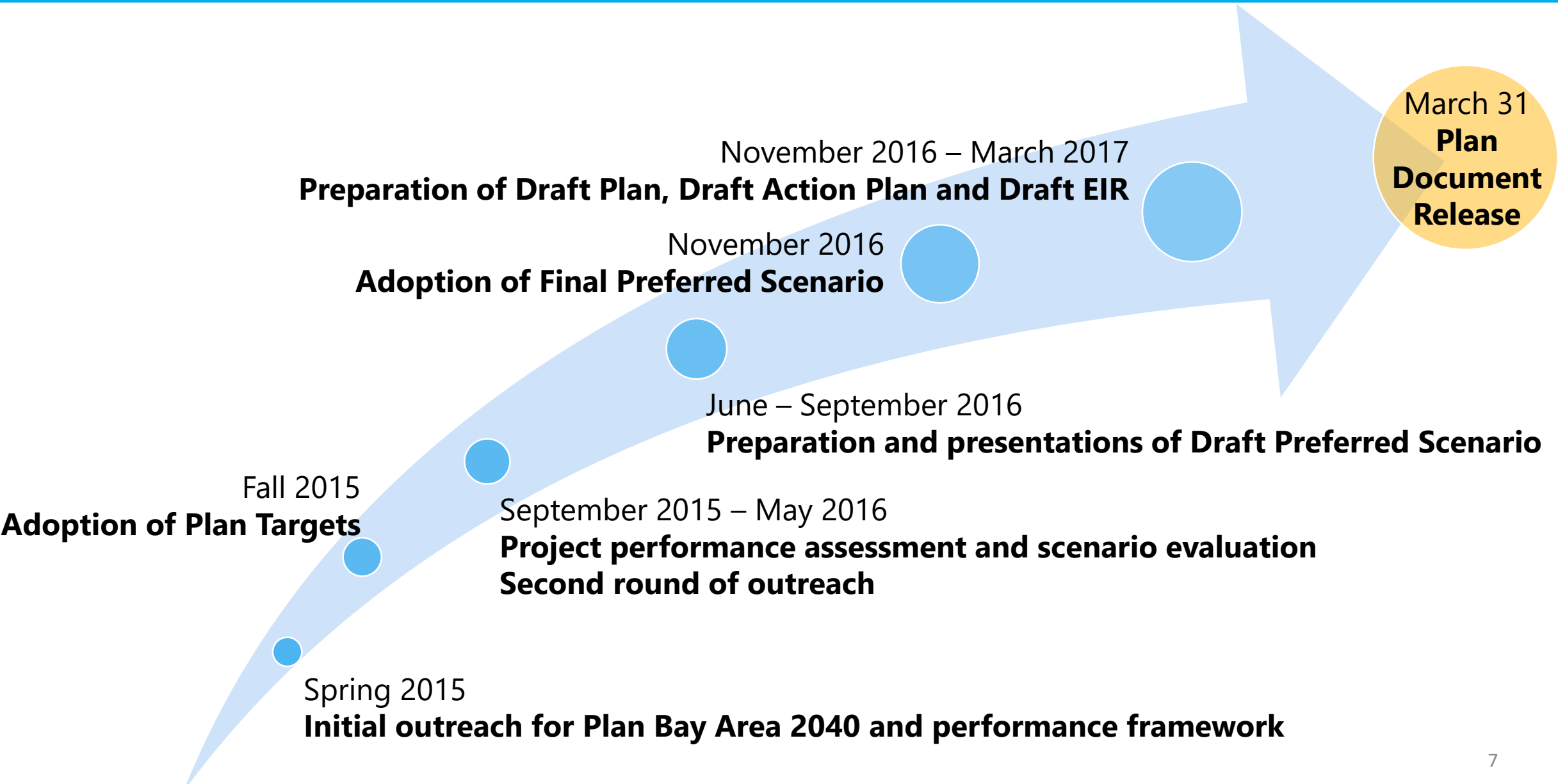
<http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>



This current boom is translating into new pressures on our transportation system – even worse than the “dot com” boom.

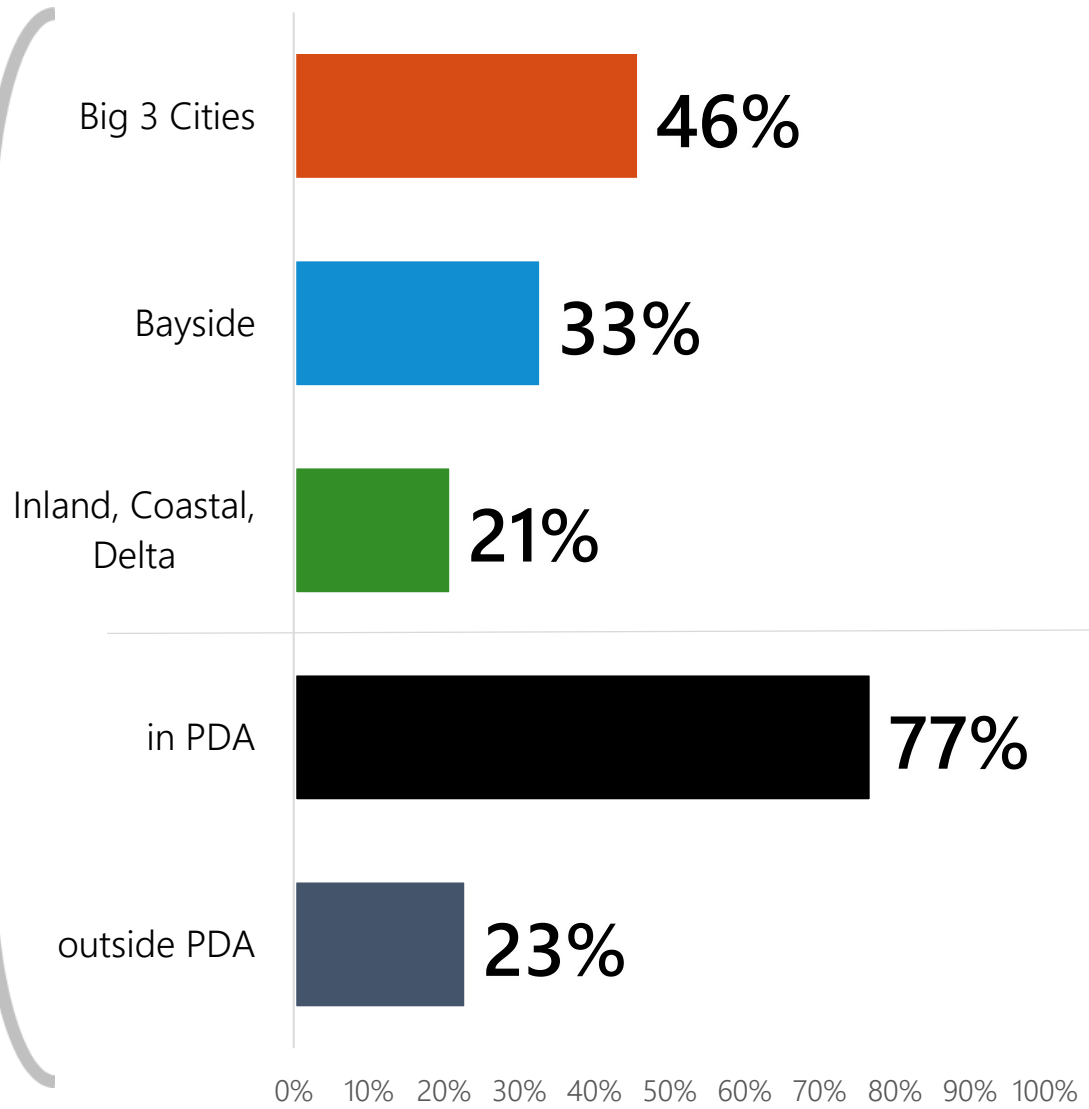
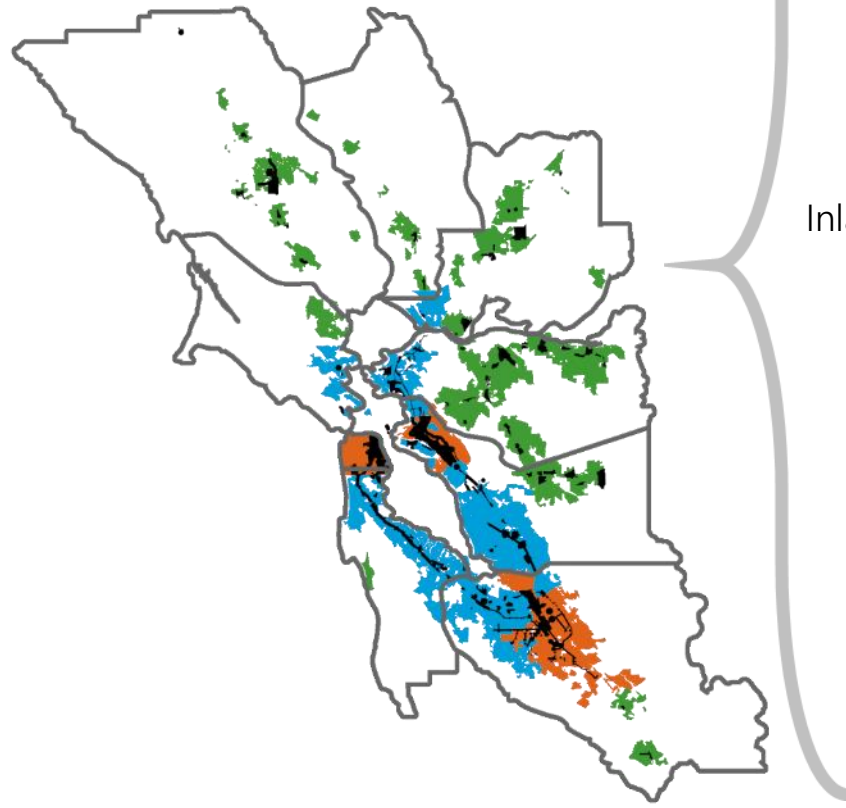


Source: Vital Signs (MTC 2015; ACS 2014; NTD 2014)

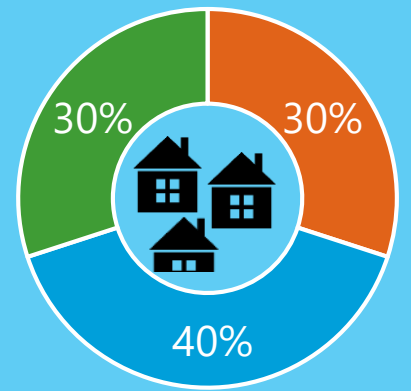


The Draft Plan accelerates housing growth in the "Big 3" cities, with the lowest growth forecasted for Inland cities and towns.

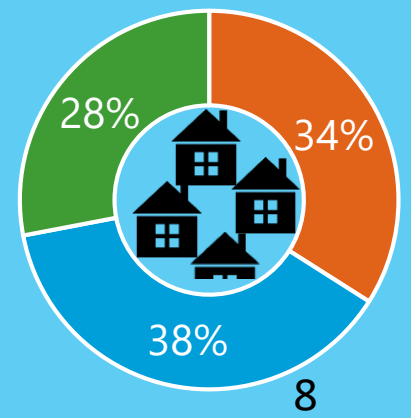
Where will the region plan for the **820,000** new households?



2010: **2.6 million** households

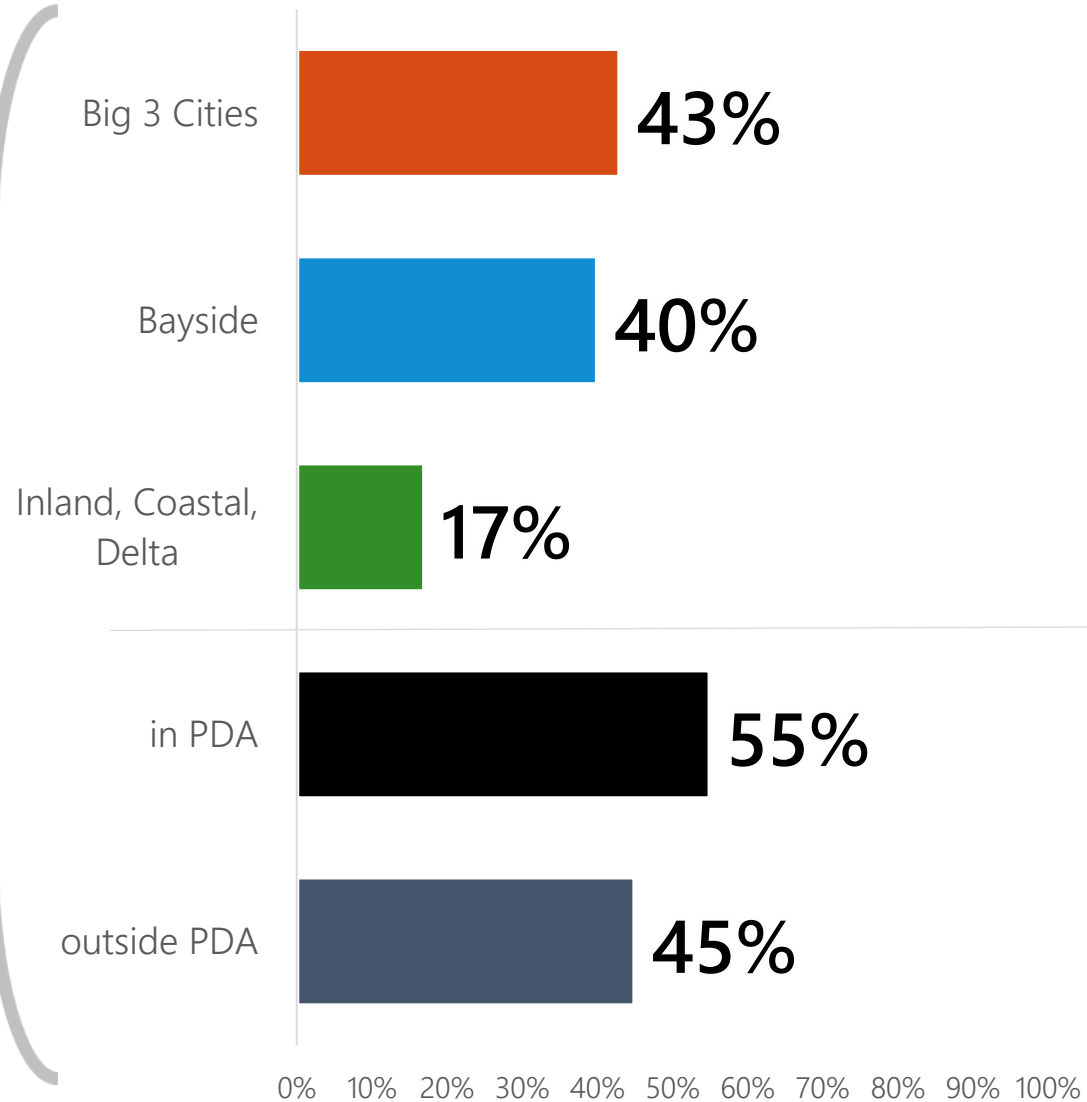
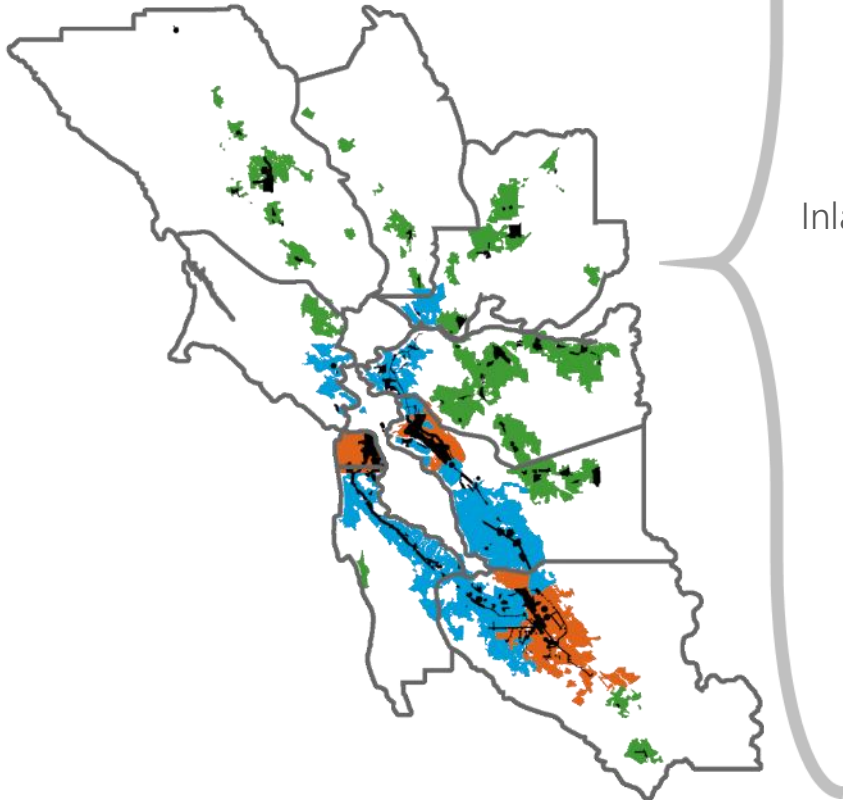


2040: **3.4 million** households

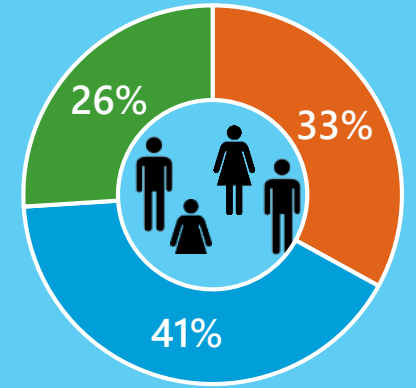


More than 80 percent of future regional job growth is expected in "Big 3" and Bayside cities.

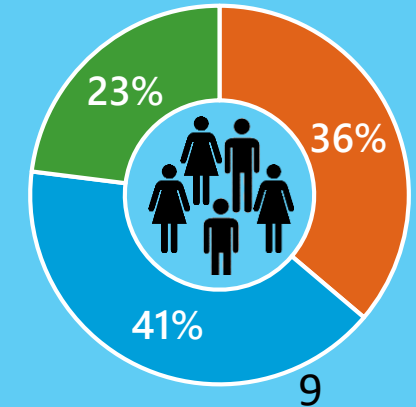
Where will the region plan for the **1.3 million** new jobs?



2010: **3.4 million** jobs



2040: **4.7 million** jobs

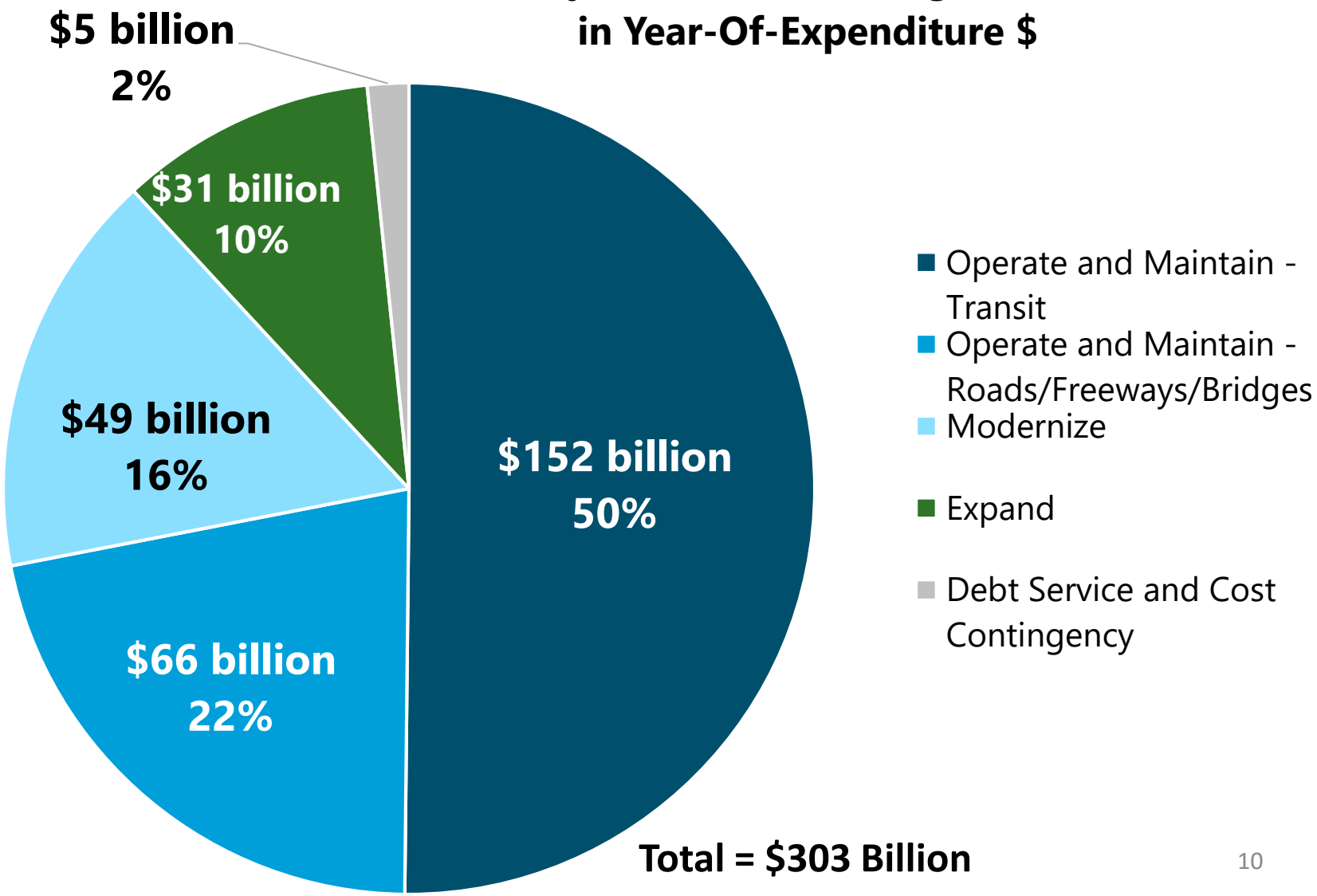


Transportation investments support land use through an emphasis in operations, maintenance, and modernization.

Plan Bay Area 2040 Funding Distribution in Year-Of-Expenditure \$

90%
Operate, Maintain, and Modernize

10%
Expand Existing System



In addition to transport investments & land use shifts, the Climate Initiatives Program helps the Bay Area exceed its 2035 GHG target.

Plan
BayArea
2040



EV Feebate Program

EV Charger Program

EV Purchase Incentive

Bike Share & Infrastructure

Car Sharing

Commuter Benefits Ordinance

Transport. Alternatives

Trip Caps

Vanpool/Shuttle Incentives

The Draft Plan meets our environmental targets, but it ultimately does not solve the region's affordability challenges.

TARGET ACHIEVED (5)



Climate Protection



Adequate Housing



Open Space and Agricultural Preservation



Middle-Wage Job Creation



Goods Movement/
Congestion Reduction

RIGHT DIRECTION (4)



Healthy and Safe Communities



Affordable Housing



Non-Auto Mode Shift



Transit Maintenance

WRONG DIRECTION (4)



Housing +
Transportation
Affordability



Displacement Risk



Access to Jobs

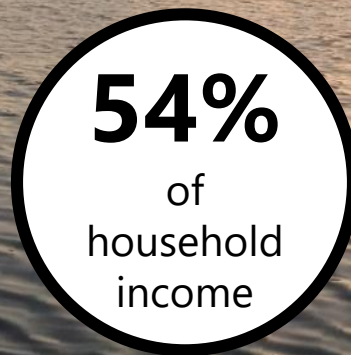


Road Maintenance

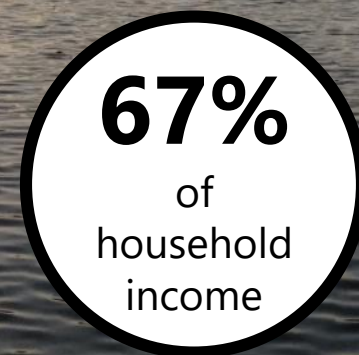
Plan BayArea 2040

While the Draft Plan exceeds the GHG reduction target – achieving a per-capita reduction of 16% by 2035 – it remains far off trajectory when it comes to affordability. The Draft Action Plan seeks to address topics like this where we are not moving in the right direction.

Housing +
Transportation
Costs
(as a share of
income)*



2005



2040

* = for lower-income households

Plan Bay Area 2040

Plan Bay Area 2040

Section 1 – *The Bay Area Today*

Section 2 – *What is Plan Bay Area 2040?*

Section 3 – *Forecasting the Future*

Section 4 – *Strategies and Performance*

Section 5 – *Action Plan*

16 Supplemental Reports

Environmental Impact Report

- The **Draft Plan**, including the **Draft Action Plan**, was released for public comment on **March 31**.
- The **Draft EIR** was released for public comment on **April 17**.
- Comments on all of these draft documents will be accepted **through June 1, 2017**.

Read the Draft Plan online at: <http://2040.planbayarea.org>



Section 5: Action Plan



- Summarizes progress on Plan Bay Area implementation to date
- Proposes specific shorter-term actions focused on areas where Plan falls short: *affordability, displacement risk, access to jobs, road maintenance*

Housing

**Economic
Development**

Resilience

Outreach Schedule

- 9** briefings of elected officials (*one in each county*)
 - During the months of April and May
- 4** meetings with community-based organizations (CBOs)
 - Throughout the month of May
- 3** public hearings on the Draft Plan and Draft EIR
 - *In San Francisco, San Jose and Vallejo in May*

- 9** open houses
 - Alameda County: **Fremont** – May 4 – 6:30 PM
 - Contra Costa County: **Walnut Creek** – May 10 – 6:30 PM
 - Marin County (workshop/open house): **Mill Valley** – May 20 – 8:30 AM
 - Napa County: **Napa** – May 15 – 6 PM
 - San Francisco County: **San Francisco** – May 17 – 6:30 PM
 - San Mateo County: **Redwood City** – May 4 – 6:30 PM
 - Santa Clara County: **San Jose** – May 22 – 6:30 PM
 - Solano County: **Fairfield** – May 15 – 6 PM
 - Sonoma County: **Santa Rosa** – May 22 – 6 PM

Submit comments **anytime through June 1 to info@PlanBayArea.org.**



Plan
BayArea
2040

Based on feedback received, staff will finalize the Draft Plan and Draft EIR, preparing for MTC/ ABAG consideration for adoption in July.

Read the Draft Plan and Draft EIR here: <http://2040.planbayarea.org>



AGENDA: 6

Implementation of the 2017 Clean Air Plan

Climate Protection Committee May 18, 2017

Abby Young
Climate Protection Manager



Clean Air Plan Goals

The 2017 Clean Air Plan was adopted by the Board of Directors on April 19, 2017

Goals of the Plan:

- Attain all state and national air quality standards
- Eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants
- Reduce GHGs toward long-range targets:
 - 40% below 1990 levels by 2030
 - 80% below 1990 levels by 2050



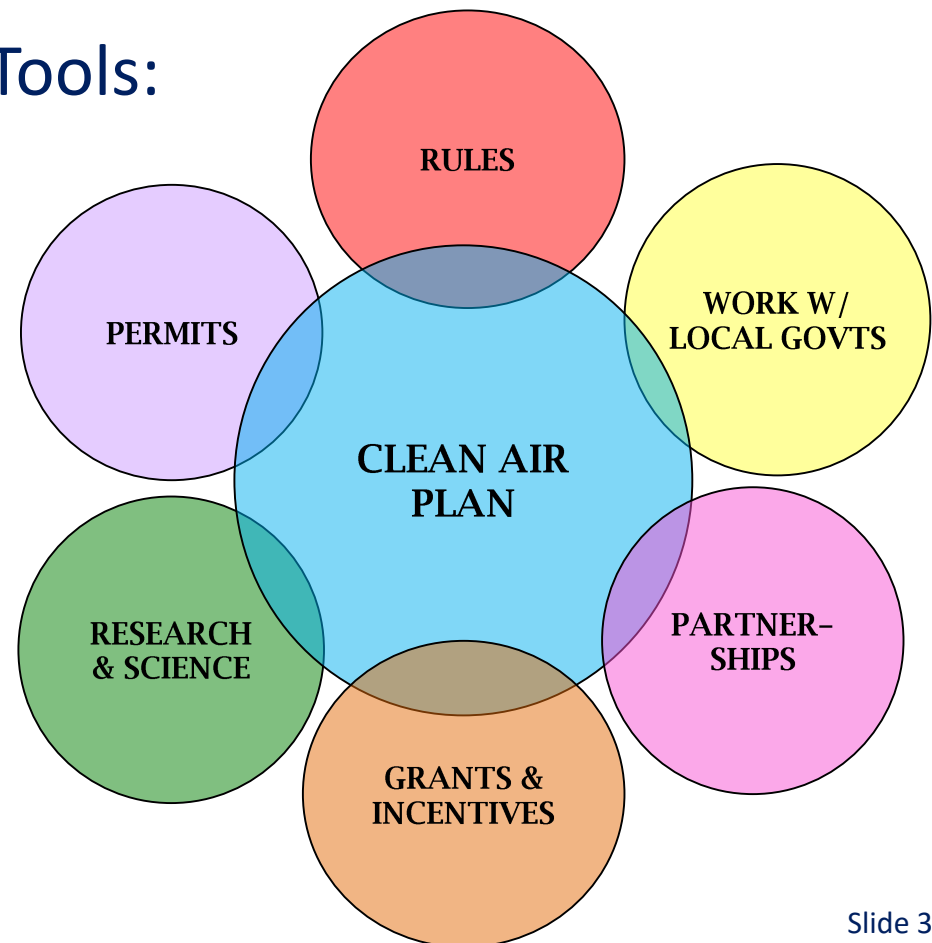
Priorities

Actions the Air District will take over the next 3-5 years

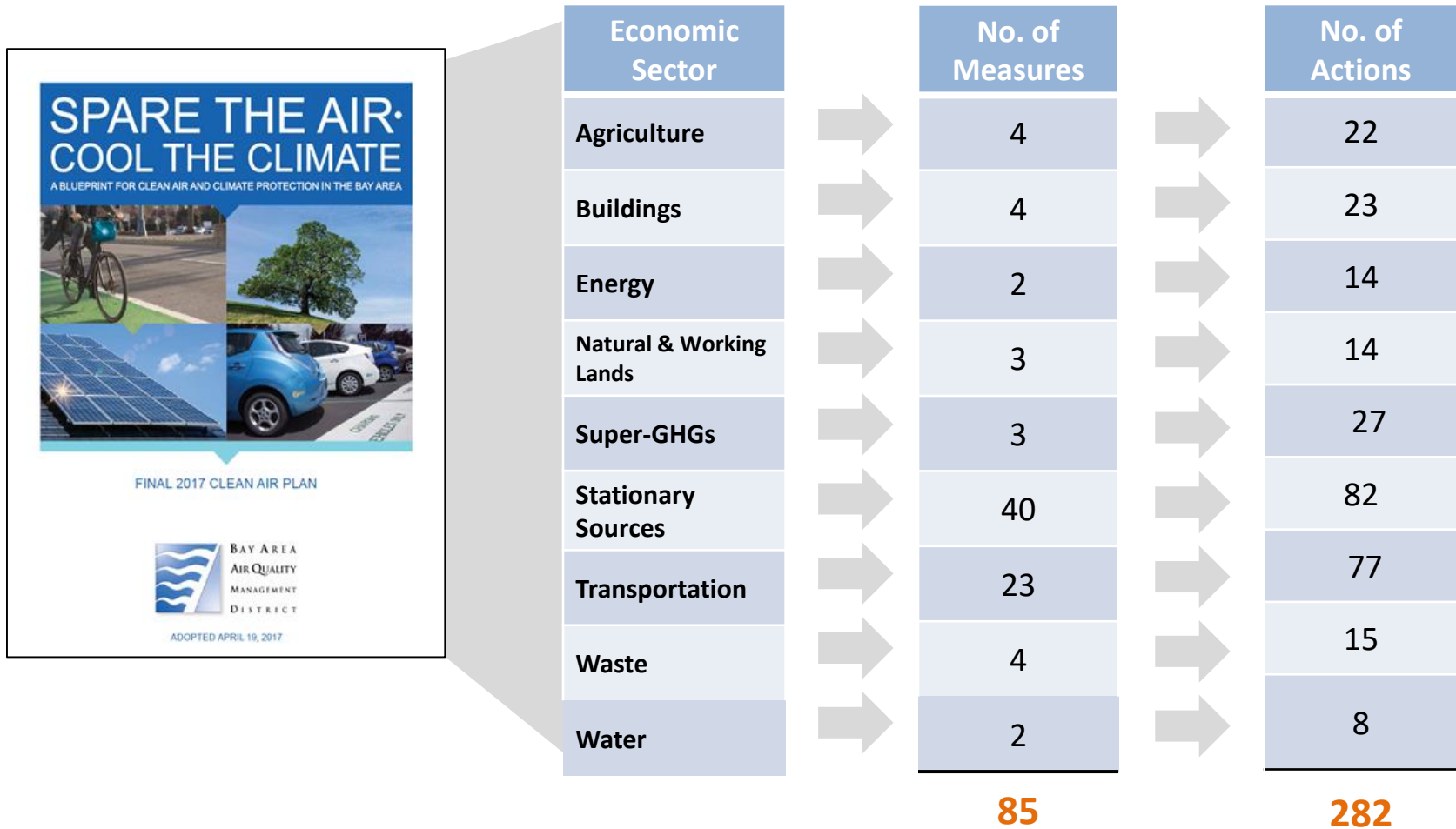
Key objectives:

- Reduce criteria pollutants, toxic air contaminants from all sources
- Reduce “super-GHGs”
- Reduce fossil fuel combustion
- Increase efficiency / reduce demand for fossil fuels
- Decarbonize the energy system / increase renewable energy

Tools:



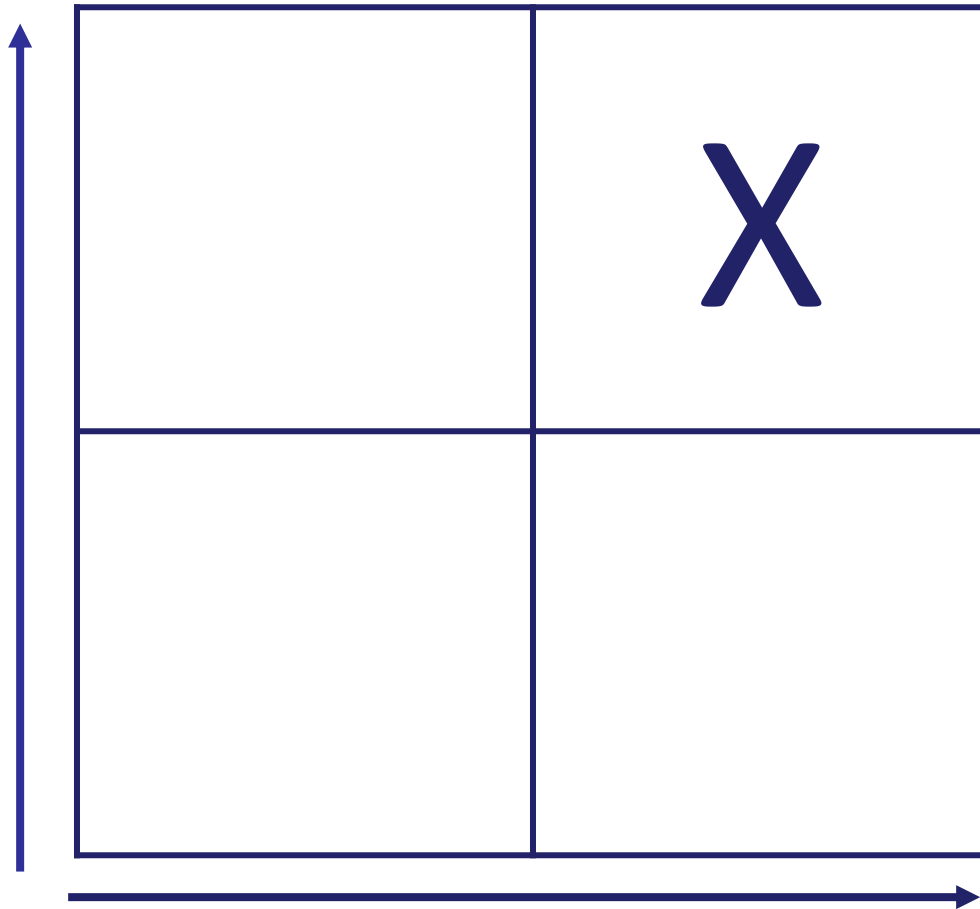
The Scale of the Task



Prioritization

Bang for the buck

- Emissions reduced
- Air pollution and public health benefits
- Benefit to CARE communities
- Innovation
- Replicability



Ease of implementation

Cost, internal expertise, available partners, readiness

A scenic photograph of a white lighthouse perched on a rocky cliff overlooking the ocean. The sky is clear and blue, and the water is a deep blue with white foam from waves crashing against the shore.

Two-tier Implementation Strategy

Long-range implementation strategy



Early implementation priorities

Early Implementation: Rulemaking

CM #	2017 Control Measures	Status
SS 20	Toxics Risk Cap (Rule 11-18)	DEIR drafted, workshops complete, adoption hearing Sept. 2017
SS 11	Refinery Emissions Cap (Rule 12-16)	Adoption hearing May 31, 2017
SS 31, 35, 36, 37	Particulate Matter (Rule 6, 6-1, 6-6, 6-7, 6-8)	Workshops complete, DEIR in August, adoption hearing Fall 2017
SS 13	Oil and Gas Production (Rule 8-37)	Working within ARB rule-making; adoption 3 rd Quarter 2018
SS 12	Refinery Carbon Intensity Limits (Reg. 13-1)	Workshops complete, adoption hearing 4 th Quarter 2017
SS 9, 17	GHG BACT and Crude Slate in Permits (Rule 2-1, 2-2)	Workshops in June, adoption hearing Oct. 2017
SS 16	Basin-Wide Methane Strategy	Forming work groups

CM #	2018 Control Measures	Status
SS 5, 6, 7	Refinery Sulfur Emissions (Rule 9-1)	Technical study near complete; adoption hearing 1 st Quarter 2018
SS 22	Stationary Gas Turbines (Rule 9-9)	Technical study complete; adoption hearing 2 nd Quarter 2018
SS 19	Portland Cement (Rule 9-13)	Technical study underway
SS 1	Fluid Catalytic Cracking in Refineries (Rule 6-5 Phase 2)	Awaiting completion of Phase 1 in Aug. 2017
SS 15	Natural Gas Processing and Distribution	CPUC rule-making expected complete Summer 2017
WA 1, 2	Landfills and Composting Operations	Preliminary technical work underway



Early Implementation: Funding

Launch New Funding Initiatives

- Implement \$4.5 million grant program
 - Assess opportunities to fund Clean Air Plan control measure implementation
 - Develop strategic funding strategy
 - Meet with local governments, community organizations and other funders to identify needs and opportunities
- Launch Technology Implementation Office
 - Hire Technology Implementation Officer and staff
 - Create advisory group
 - Undertake comprehensive review of stationary source GHG reduction technologies
 - Host Technology Forum (4th Quarter 2017)



Early Implementation: Funding

Sustain and Expand Existing Programs

- Incentivize electric vehicles (EVs) & EV infrastructure
 - \$17+ million awarded since 2010 for on-road vehicles and charging
 - \$42 million awarded since 2010 for off-road electrification (CalTrain, shore power)
 - \$5 million currently available through the 2017 *Charge!* Program
 - Bay Area goals: 110,000 EVs by 2020, 247,000 EVs by 2025
- Reduce diesel and black carbon emissions
 - ~\$150 million awarded since 2012 to reduce emissions from trucks, school buses, marine vessels, locomotives and off-road equipment
 - Over \$20 million anticipated annually to reduce diesel emissions
- Work with MTC/ABAG/local governments to reduce VMT
 - Launched \$5 million 2017 Bicycle Facilities Grant Program
 - Collaborate in developing *Plan Bay Area*
 - Support development of strong local climate action plans



Early Implementation: Local Governments

Many of the societal changes necessary to achieve our goals will occur at the community level.

➤ **Air District's role – accelerate local implementation with early actions:**

- Decarbonizing energy – collaboration with CCEs
- Adopting ordinances and best practices
 - Model Solar Ordinance Project (with BARC, ABAG/BayREN)
 - Webinar series for local govt staff to share best practices
- Launched VMT tool with MTC as first step to creating data portal for local govt staff
- Updating CEQA guidance and thresholds
- June 1 retreat with Spare the Air resource teams

The background of the slide features a scenic view of the Golden Gate Bridge in San Francisco, California. The bridge's iconic orange-red towers and suspension cables are visible against a clear blue sky. In the foreground, the water of the bay is calm, and a small building is situated on the left side of the frame.

Comprehensive Approaches

Implementing the Clean Air Plan will require multi-faceted, cross-cutting initiatives

Some emerging themes:

- Supporting local government action across many sectors
- Addressing methane and VOC emissions as we divert organics from landfills to composting
- Advancing bioenergy production – utilizing methane to create renewable energy
- Ensuring that emission reductions occur in impacted communities



Key Partners

Partners are critical to informing and participating in the implementation process

- Local governments
- State and regional agencies
- Industry/energy providers
- Community organizations
- Business networks
- Climate protection groups
- Schools and youth organizations
- Air District resource teams



Next Steps

- Develop implementation strategy, including prioritization approach, for control measures and implementation actions
- Track control measure implementation
- Identify regional metrics to follow
- Annual reporting back to Board