



TO: Policy Advisory Council

Dated: October 7, 2015

FR: Ken Kirkey, Director, MTC Planning

RE: Plan Bay Area (PBA) 2040 Scenarios

ABAG and MTC are beginning the process of developing three land use and transportation scenarios to inform discussions about the strategic update of Plan Bay Area 2040. Scenarios show different options for how the Bay Area can grow and change over time in ways that help us meet our goals for a more prosperous, sustainable, and equitable region. A vital part of the Plan Bay Area 2040 strategic update, scenarios represent alternative Bay Area futures based on distinct land use development patterns and transportation investment strategies.

ABAG and MTC are requesting feedback about our draft scenario concepts to ensure they preserve the character of our diverse communities while adapting to the challenges of future population growth. On October 6 and October 7, ABAG and MTC held two scenario workshops at the Regional Advisory Working Group (RAWG) and ABAG's Regional Planning Committee (RPC), respectively. After a short overview of our Plan Bay Area 2040 scenario development approach (Attachment 1), participants had the opportunity to engage in small-group discussions around the initial scenario concepts. Participants were asked for their feedback on the draft scenario concepts, and to prioritize the policy and investment strategies that best shape each alternative.

Next Steps

Once refined, these scenario concept narratives will provide a framework for our scenario alternatives, which will be developed, modeled, and evaluated to understand the effects of different combinations of land use and transportation strategies on our shared goals and targets. The scenario planning process is summarized and next steps are identified in Attachment 2.

Attachments:

1. Scenario Planning Approach
2. Scenario Development Process
3. Scenario Planning Approach Presentation

Scenario Planning Approach

Background

In July 2013, MTC and ABAG adopted Plan Bay Area 2013 as the Bay Area's first Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The plan responds to State Law (SB 375) requiring the preparation of an integrated land-use and transportation plan to meet greenhouse gas (GHG) emission reduction targets. A lot has changed in the Bay Area since the Plan's adoption, as the region's economy is growing rapidly and housing costs continue to increase, and many communities have recently completed land use plans that envision how to accommodate future growth.

MTC and ABAG are required to update the RTP/SCS every four years. In spring 2015, MTC and ABAG began a limited and focused update of Plan Bay Area 2013, called Plan Bay Area 2040 (PBA 2040). From late April through May, a series of open houses were conducted across the region to introduce the public to the PBA 2040 update process, seek comments on goals and targets, and receive feedback on local priorities across a wide range of issue areas. The comments and feedback were compiled and shared with the Regional Advisory Working Group (RAWG) as well as MTC and ABAG other committees and working groups, in July 2015. Meanwhile, over the past several months, MTC and ABAG have presented information regarding PBA 2040's proposed Goals and Performance Targets, Regional Forecasts, and Project Performance Assessment to the RAWG, the MTC Planning and ABAG Administrative Committees, and various other committees and working groups. With the Goals and Performance Targets up for adoption this fall and the Regional Forecasts underway, the next milestone is to develop and evaluate regional scenarios that integrate land use and transportation strategies.

What is Scenario Planning?

Scenario planning is a common way for organizations such as MTC and ABAG to analyze and communicate the effects of different combinations of land use and transportation strategies on regional goals and targets. Scenarios can help articulate alternative future paths and provide information to help partner agencies, local jurisdictions, and the general public understand trade-offs. Scenarios can be constructed to modify the status quo, analyze and evaluate strategies that may be practically or politically challenging, and engage the region in a common dialogue about planning for our common future.

Constructing and communicating scenarios generally requires adherence to the following principles:

- **Develop a small number of scenarios.** A good regional planning process should advance a short list of coherent scenarios that can be clearly communicated. This can be challenging, because the strategies underpinning scenarios can be arranged in an infinite number of ways.
- **Construct a preferred scenario.** Since an infinite number of scenarios can theoretically be constructed, it is not appropriate to conduct a "winner takes all" approach to scenario planning. Rather, a "preferred scenario" can incorporate some of the best ideas from each scenario alternative. This can be challenging, because most people naturally gravitate toward voting for a favorite scenario out of the alternatives presented.
- **Balance sophistication with simplicity.** Scenarios should be meaningful for the most engaged and sophisticated observers, but also be easy to communicate to a broad spectrum of people around the region. This can be challenging, because scenarios may seem overly simplistic to some audiences or cryptic to other audiences.

Scenario Planning in Plan Bay Area 2013

For Plan Bay Area 2013, MTC and ABAG conducted extensive outreach to develop multiple rounds of scenario development and evaluation. This led to the development and adoption of the preferred land use distribution and transportation investment strategy (preferred scenario). Once the preferred scenario was adopted, another set of scenarios was developed and evaluated as alternatives within Plan Bay Area 2013's Environmental Impact

Report (EIR). These multiple rounds of scenario development required a tremendous amount of time and effort on the part of MTC and ABAG, partner agencies, local jurisdictions, working groups and committees. In retrospect, this process may also have created confusion due to the large number of scenario alternatives (13 alternatives in total). As a result, in early project scoping meetings for PBA 2040, MTC and ABAG proposed a simplified approach to scenario planning as described in the following sections.

Recommended approach to PBA 2040 Scenario Development

As described in a July 2014 memo to the MTC Planning Committee and ABAG Administrative Committees, MTC and ABAG's approach for this RTP/SCS will be to conduct a limited and focused update, building off the core framework established in Plan Bay Area 2013. One key difference between Plan Bay Area 2013 and its update – PBA 2040 – is that PBA 2040 does not include the Regional Housing Need Allocation (RHNA), which will be included again in the 2021 RTP/SCS. The RHNA process required a great deal of outreach and planning work that will not be necessary for PBA 2040. In addition, this will not be the region's first RTP/SCS, so we can build on lessons learned in the first integrated transportation and land use planning effort.

The MTC Public Participation Plan, adopted in February 2015, lays out PBA 2040's scenario development approach. This approach can be summarized as follows:

- One round of scenario analysis and evaluation will be conducted, and a maximum of three scenarios will be developed;
- The scenarios will be constructed in an effort to achieve PBA 2040's goals and performance targets;
- The scenarios will be designed to inform the selection of a preferred scenario; and,
- The same scenario alternatives will be carried over into the Environmental Impact Report (EIR) process.

Additionally, in order to analyze and evaluate the scenario alternatives, each scenario output will include, at a minimum:

- **Land use**
 - Total jobs by PDA and city;
 - Total housing units and households by PDA and city; and
 - Total population by PDA and city.
- **Transportation**
 - Investments by mode and purpose; and,
 - GHG and other travel model outputs for performance targets assessment.

Specific Process and Timeline for Developing and Evaluating Scenarios

The scenario development and evaluation process will occur over the next nine months, with MTC and ABAG adopting a preferred scenario in June 2016. MTC and ABAG, using input from the public workshops held in Spring 2015, partner agencies, working groups, and committees will develop and evaluate three alternative scenarios composed of land use and transportation strategies.

The scenario planning process will have three phases:

- **Scenario Development.** In October, MTC and ABAG staff will host scenario development workshops with the RAWG and ABAG Regional Planning Committee (RPC) to kick off the scenario planning process; gather input on the draft scenario concepts; and identify potential jobs, housing and transportation strategies to support the scenario concepts. These workshops will help shape the development of the three scenario alternative concepts and their respective strategies.

Following the October workshops, MTC and ABAG staff will present the draft scenario concepts in November to the MTC Planning and ABAG Administrative Committees, ABAG Executive Board, and other committees and working groups as appropriate, for additional feedback.

In February and March 2016, MTC and ABAG staff will present to the RAWG, RPC, the MTC Planning and ABAG Administrative Committees, and the ABAG Executive Board defined scenario alternatives that show

different options for distributing forecasted housing, population, and employment growth, as well as the high performing projects of the project performance assessment and the costs to maintain and operate our existing transportation system.

- **Scenario Evaluation.** Following the November 2015 joint meeting of the MTC Planning and ABAG Administrative Committees, MTC and ABAG staff will begin an iterative process of scenario evaluation and refinement of each scenario's land use and transportation strategies to meet regional goals and targets. MTC and ABAG staff will use regional models, described in more detail in the following section, to develop and analyze the scenarios.

In March 2016, MTC and ABAG staff will present to the RAWG, the MTC Planning and ABAG Administrative Committees, and other committees and working groups as appropriate, the results of the performance targets and equity assessments for each of the three scenario alternatives.

In April 2016, MTC and ABAG will host public workshops to discuss the scenario alternatives and the results of their evaluation.

- **Scenario Adoption.** Following the April 2016 public workshops, MTC and ABAG staff will create a draft preferred scenario based on feedback from the public, local jurisdictions, MTC and ABAG's partner agencies, working groups, and committees. The draft preferred scenario will incorporate strategies that best achieve the adopted PBA 2040 goals and performance targets and equity metrics.

In May 2016, MTC and ABAG staff will present the draft preferred scenario to the RAWG, the MTC Planning and ABAG Administrative Committees, and ABAG Executive Board. Their input will be used to refine the preferred scenario before the MTC Commission and ABAG Executive Board are asked to adopt the final preferred scenario at a joint June 2016 meeting.



Figure 1

Modeling Tools

MTC and ABAG staff will use modeling tools to assist in the development and analysis of scenarios. The integration of the regional land use and travel demand models allows for analysis of how land use policies will affect transportation outcomes and how transportation projects and policies will affect land use outcomes. The models allow us to perform our targets assessment for each scenario.

- **UrbanSim.** This regional land use forecasting model relies on regional control totals of jobs, housing, and population, developed and adopted by ABAG, to analyze the effects of land use and transportation strategies on the forecasted regional development pattern. The model simulates the interactions of households, businesses, developers, and governments within the urban market. The model will produce land use outputs, including the forecasted location of new jobs and housing for each scenario alternative. MTC and ABAG staff will evaluate the model outputs through an extensive planning process involving input by local jurisdictions.
- **Travel Model One.** The regional travel demand model relies on UrbanSim's forecasted regional development pattern to analyze the significance of transportation impacts and estimate travel outcomes, including vehicle miles traveled, vehicle hours of delay, and accessibility for each scenario alternative.

Common Assumptions for All Scenarios

There are a number of core assumptions that will stay the same across different scenarios:

- **Regional Forecast – Total Jobs, Housing, and Population (Control Totals).** ABAG’s adopted regional forecast will set control totals for the total jobs, housing, and population in the region. This total number will not vary across scenarios.
- **Regional Housing Need Allocation (RHNA).** In 2013, ABAG adopted the *Final Regional Housing Need Plan for the San Francisco Bay Area: 2014-2022*, including the final housing unit allocations, by income, to local jurisdictions in the region. The three scenario alternatives will reflect the adopted 2013 RHNA, and will not vary across scenarios. The next RHNA process will occur in coordination with the 2021 RTP/SCS.
- **Regional PDA and PCA Framework.** PDAs and PCAs are locally nominated and their geography will not vary across scenarios; however, the extent to which growth is emphasized in PDAs and land in PCAs is conserved may be considered as strategies.
- **Regional Transportation Revenue Sources.** MTC develops a revenue forecast that accounts for all reasonably assumed revenue sources to 2040. The total amount of revenues and sources will not vary across scenarios; however, certain revenue enhancements may be considered as strategies.
- **Regional Committed Transportation Network.** The committed transportation network represents the existing transportation infrastructure and proposed transportation improvements that are fully funded and under construction. The committed transportation network will not vary across scenarios.

Strategies Varying Across Scenarios

The differences in scenario alternatives will be driven by alternative distributions of strategies, which generally comprise a short set of land use and housing policies, transportation policies, and transportation investments. While not an exhaustive list, the strategies generally encompass the following actions:

- **Land Use Strategies** that change a community’s capacity for new development or incentivize a particular type or location of growth, such as changes to zoning, fees and subsidies, incentives and growth boundaries.
- **Transportation Strategies**
 - Transportation Investments- includes strategies for different types of transportation investments by category (expansion, maintenance, state of good repair, etc.), and mode (highway, transit, bike/ped, etc.), and programs.
 - Transportation Policies- includes strategies to manage transportation demand, systems operations, parking policies, and taxes and fees.
 - Climate Strategies- includes technological advancements (e.g. clean vehicles) and incentive programs to encourage travel options that help meet GHG emissions reduction targets.

It is important to recognize that the distribution of different strategies within initial scenarios does not constitute a staff proposal or recommendation. This distribution is done simply to illustrate tradeoffs between alternative growth patterns and infrastructure investments and serve as a building block for developing a preferred scenario.

Next Steps

Stakeholder engagement will help shape the strategies across each of the three scenario alternatives. The October ’15 scenario workshops are the first opportunity for input.

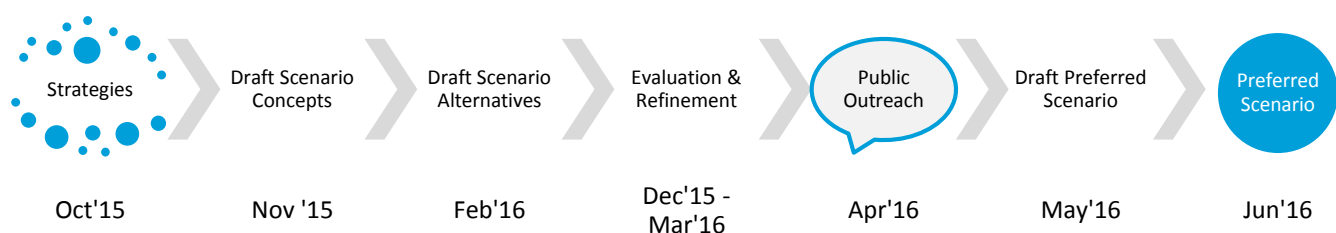
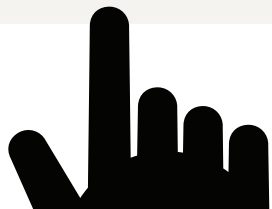
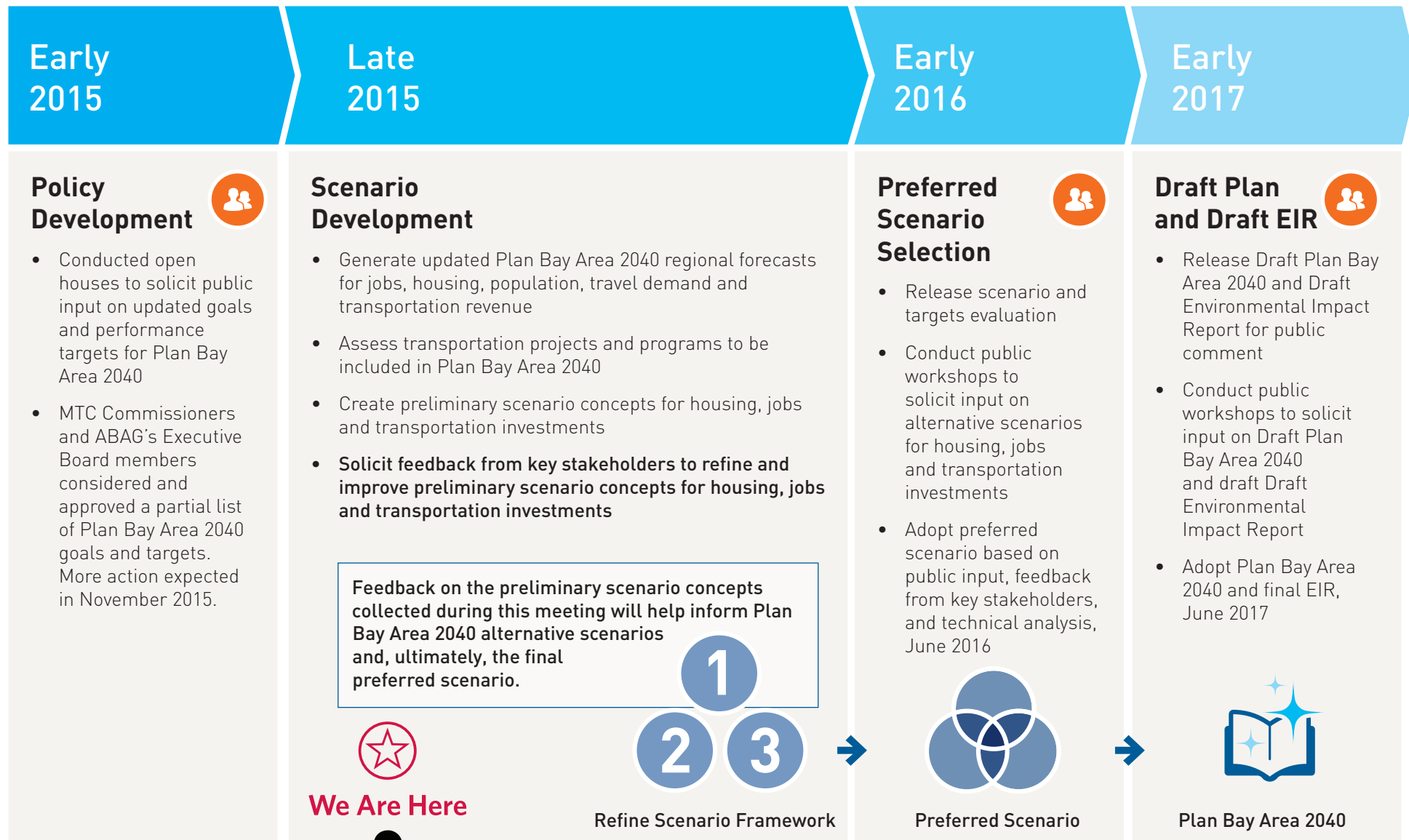


Figure 2

Scenario Development Process

Plan
Bay Area
2040





Scenario Development

Policy Advisory Council

Ken Kirkey, Planning Director, MTC
October 14, 2015



WHAT IS PLAN BAY AREA?

Plan
BayArea
2040

Plan Bay Area is a roadmap to help Bay Area cities and counties preserve the character of our diverse communities while adapting to the challenges of future population growth.



Promotes a strong regional **economy** by providing communities with the data they need to plan for future job growth, as well as any accompanying education, housing, and transportation needs.



Informs local cities and counties in their decision-making around new **housing** developments by providing housing demand forecasts.



Supports strategic **transportation** investments that aim to decrease traffic congestion, improve travel options, and reduce pollution both locally and regionally.

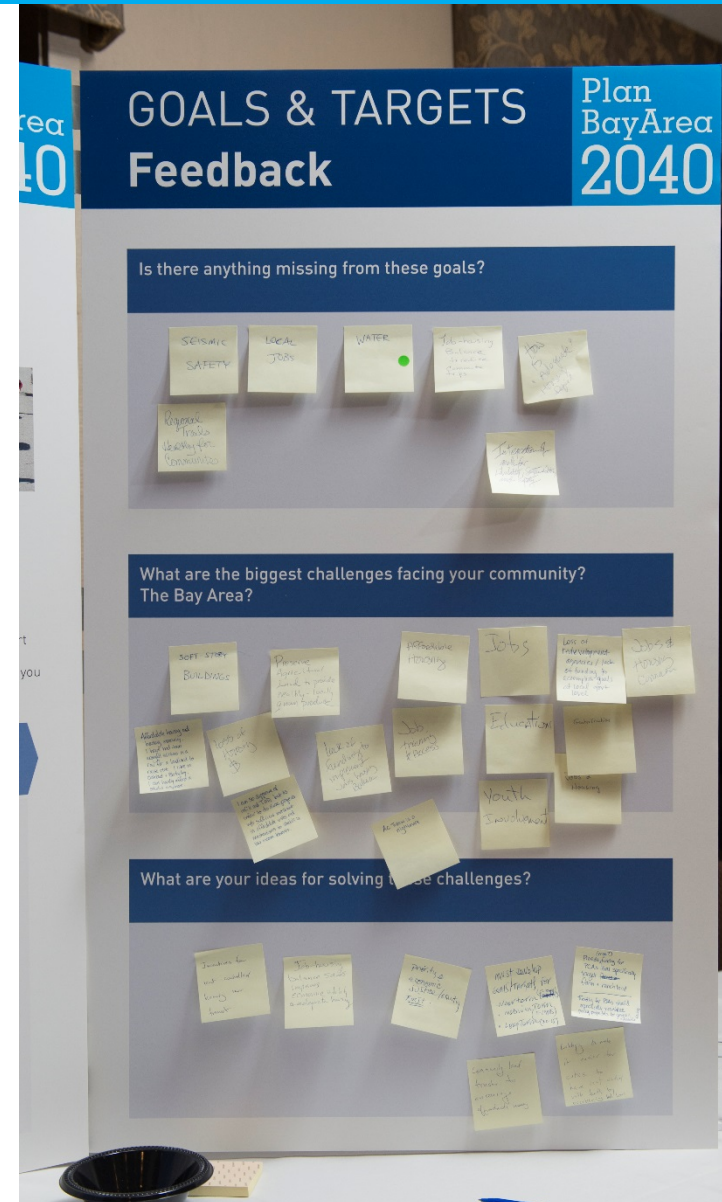


2015 SPRING OPEN HOUSES

Plan
BayArea
2040

Approximately 600 participants attended nine Bay Area Open Houses. General themes:

- We heard concerns about housing affordability and rapidly rising rents
- We heard suggestions for improving transit connections (especially BART)
- Many noted the lack of housing near available jobs and adequate transit options
- We heard about the importance of protecting open space and preserving water resources



FEEDBACK ON PBA GOALS & TARGETS

Plan BayArea 2040

JOBSD DEVELOPMENT PRESERVATION

[illegible]

NEXT STEP: SCENARIOS

- Scenarios show different options for how the Bay Area can grow and change over time in ways that help us meet our goals for a more prosperous, sustainable, and equitable region.
- The alternative scenarios combine different strategies to highlight potential differences in the region's development pattern and transportation system.



SCENARIOS APPROACH

- Develop 3 scenarios
- Construct a preferred scenario
- Balance sophistication with simplicity



SCENARIO DEVELOPMENT PROCESS

Plan
BayArea
2040



SCENARIO CONCEPTS

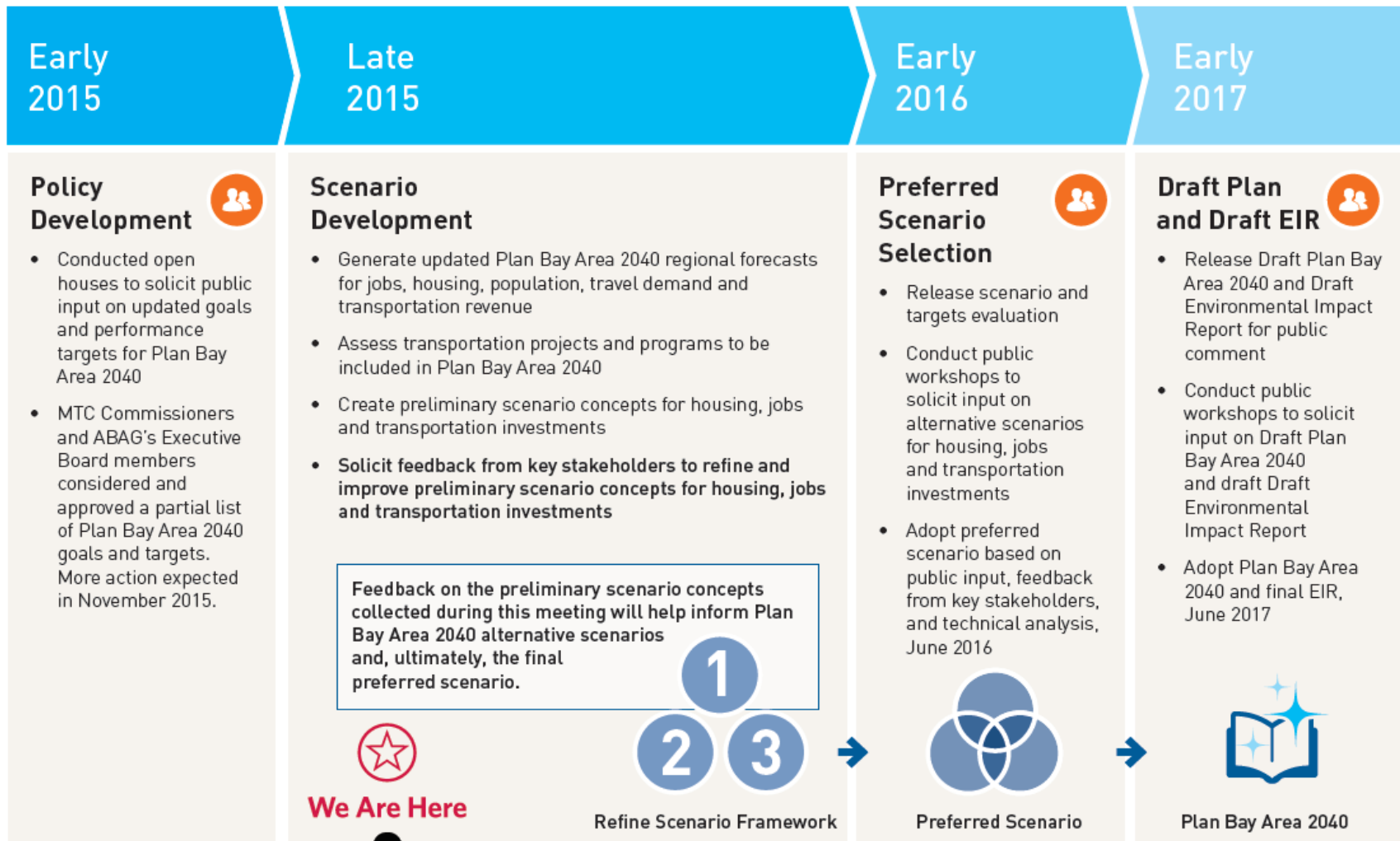
Keep in mind:

- Alternative scenarios are required as part of Plan Bay Area 2040
- Our goal today is to improve the three scenario concepts via policy strategies that preserve the character of our diverse communities while adapting to the challenges of future population growth.
- Common assumptions for all three scenarios concepts:
 - Plan Bay Area 2040 goals and targets
 - Regional Forecast totals
 - Regional Housing Need Allocation (RHNA)
 - Regional PDAs and PCAs Framework
 - Regional Transportation Revenue Sources
 - Regional Committed Transportation Network



SCENARIO DEVELOPMENT PROCESS

Plan
Bay Area
2040



STAY INVOLVED

Plan
BayArea
2040



Subscribe to our mailing list to receive updates about Plan Bay Area and other regional initiatives at PlanBayArea.org



Contact MTC and ABAG directly to provide your comments in writing at info@planbayarea.org or join the discussion online on PlanBayArea.org or Facebook and Twitter.



Find an archive of past planning documents, frequently asked questions, regional planning agency calendars, and up-to-date planning information at PlanBayArea.org



Ken Kirkey
Planning Director
kkirkey@mtc.ca.gov
(510) 817-5790

Miriam Chion
Planning & Research
Director
miriamc@abag.ca.gov
(510) 464-7919



[Facebook.com/PlanBayArea](https://www.facebook.com/PlanBayArea)



[@PlanBayArea](https://twitter.com/PlanBayArea)

Plan
BayArea
2040

Thank You

