Meeting Agenda

Bay Area Partnership Board

Friday, February 23, 2018   9:00 AM   **Bay Area Metro Center**
375 Beale Street, The Board Room – 1st Floor
San Francisco, CA 94105

This meeting will be recorded. Copies of recordings may be requested at the Metropolitan Transportation Commissioner (MTC) at nominal charge, or recordings may be listened to at MTC offices by appointment.

1. Call Meeting to Order / Introductions (Chair Rick Ramacier)

2. Consent Agenda - Approval

18-0157   Minutes - December 20, 2017 Meeting

Attachments: 2_12202017_Partnership Meeting_Minutes.pdf

3. Partnership Technical Advisory Committee Update (Anthony Adams)

DISCUSSION

4.   18-0158   Linking Transportation Funding and Housing Outcomes (Anne Richman)

The Commission directed MTC/ABAG staff to report back by July 2018 on supplemental housing condition criteria that would consider all funding sources for public and stakeholder review. As a follow-up to the last Partnership Board meeting, this item is an open ended discussion about this and other strategic funding questions facing the region. A series of questions and some background will be provided to jumpstart the discussion.

Attachments: 4_Linking Transporation Funding and Housing Outcomes.pdf

5.   18-0159   Futures and Future Mobility (Matt Maloney)

Staff is kicking off an effort called Futures to examine multiple sets of external conditions - new technologies, unexpected natural or manmade disasters, economic booms and busts, and political volatility - and think through policy and investment solutions that make sense in each distinct future. At the same time, the landscape around us is changing quickly as it relates to shared use mobility services and autonomous vehicles. We welcome a discussion of the related regional and local policy implications, near-term issues to be addressed by the Partnership, and how to best partner and align our collective goals to stay on top of these fast-moving changes.

Attachments: 5_Future and Future Mobility.pdf

6. Public Comments / Other Business

7. Adjournment / Next Meeting

The next meeting of the Bay Area Partnership Board will be duly noticed.

Public Comment: The public is encouraged to comment on agenda items at Committee meetings by completing a request-to-speak card (available from staff) and passing it to the Committee secretary. Public comment may be limited by any of the procedures set forth in Section 3.09 of MTC's Procedures Manual (Resolution No. 1058, Revised) if, in the chair's judgment, it is necessary to maintain the orderly flow of business.

Meeting Conduct: If this meeting is willfully interrupted or disrupted by one or more persons rendering orderly conduct of the meeting unfeasible, the Chair may order the removal of individuals who are willfully disrupting the meeting. Such individuals may be arrested. If order cannot be restored by such removal, the members of the Committee may direct that the meeting room be cleared (except for representatives of the press or other news media not participating in the disturbance), and the session may continue.

Record of Meeting: Committee meetings are recorded. Copies of recordings are available at a nominal charge, or recordings may be listened to at MTC offices by appointment. Audiocasts are maintained on MTC's Web site (mtc.ca.gov) for public review for at least one year.

Accessibility and Title VI: MTC provides services/accommodations upon request to persons with disabilities and individuals who are limited-English proficient who wish to address Commission matters. For accommodations or translations assistance, please call 415.778.6757 or 415.778.6769 for TDD/TTY. We require three working days' notice to accommodate your request.

可及性和法令第六章：MTC 根據要求向希望來委員會討論有關事宜的殘疾人士及英語有限者提供服務/方便。需要便利設施或翻譯協助者，請致電 415.778.6757 或 415.778.6769 TDD / TTY。我們要求您在三個工作日前告知，以滿足您的要求。

Acceso y el Titulo VI: La MTC puede proveer asistencia/facilitar la comunicación a las personas discapacitadas y los individuos con conocimiento limitado del inglés quienes quieran dirigirse a la Comisión. Para solicitar asistencia, por favor llame al número 415.778.6757 o al 415.778.6769 para TDD/TTY. Requerimos que solicite asistencia con tres días hábiles de anticipación para poderle proveer asistencia.

Attachments are sent to Committee members, key staff and others as appropriate. Copies will be available at the meeting.

All items on the agenda are subject to action and/or change by the Committee. Actions recommended by staff are subject to change by the Committee.

File #:	18-0157	**Version:** 1	**Name:**		
Type:	Minutes		**Status:**	Consent	
File created:	2/15/2018		**In control:**	Bay Area Partnership Board	
On agenda:	2/23/2018		**Final action:**		
Title:	Minutes - December 20, 2017 Meeting				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	2_12202017_Partnership Meeting_Minutes.pdf				

Date	Ver.	Action By	Action	Result

Subject:

Minutes - December 20, 2017 Meeting

Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105

Meeting Minutes - Draft

Bay Area Partnership Board

Wednesday, December 20, 2017	**9:00 AM**	**Alameda County Transportation Commission**
		1111 Broadway, Suite 800
		Oakland, CA 94607

This meeting will be recorded. Copies of recordings may be requested at the Metropolitan Transportation Commissioner (MTC) at nominal charge, or recordings may be listened to at MTC offices by appointment.

1. Call to Order / Introductions (Chair Rick Ramacier)

2. Consent Agenda – Approval

17-3111   Minutes - October 20, 2017 Meeting

Action: Board Approval

Attachments: 02_MeetingMinutes10172017.pdf

3. Partnership Technical Advisory Committee Update (Diane Feinstein)

DISCUSSION

4.   17-3107   Senate Bill 1 (SB1) Competitive Programs Implementation

Update of SB1 Competitive Program Implementation focusing on the following three statewide competitive programs: Solutions for Congested Corridors; Trade Corridor Enhancement Program; and Transit and Intercity Rail Program.

Action: Information

Presenter: Anne Richman

Attachments: 04_SB 1 Competitive Programs.pdf

5. [17-3108](#) State Transit Assistance (STA) Population- Based Policy

Update on the proposed framework for STA population based funds including the Senate Bill 1 augmentation funds.

Action: Information

Presenter: Anne Richman

Attachments: [05_STA_Pop-Based.pdf](#)

6. [17-3109](#) Goods Movement Investment Strategy

Near-term set of priority projects for goods movement.

Action: Information

Presenter: Matt Maloney

Attachments: [06_Goods_Movement_Investment_Strategy.pdf](#)

7. [17-3110](#) Regional Measure 3 (RM3) Update

Update an overview of next steps for placement of RM 3 on the ballot, including key items that will be included in the enabling resolution.

Action: Information

Presenter: Randy Rentschler and Rebecca Long

Attachments: [07_Regional Measure 3.pdf](#)

8. Public Comments / Other Business

9. Adjournment / Next Meeting

The next meeting of the Bay Area Partnership Board will be duly noticed.

Metropolitan Transportation Commission

Legislation Details (With Text)

File #:	18-0158	**Version:** 1	**Name:**	
Type:	Report		**Status:**	Agenda Ready
File created:	2/15/2018		**In control:**	Bay Area Partnership Board
On agenda:	2/23/2018		**Final action:**	

Title: Linking Transportation Funding and Housing Outcomes (Anne Richman)

The Commission directed MTC/ABAG staff to report back by July 2018 on supplemental housing condition criteria that would consider all funding sources for public and stakeholder review. As a follow-up to the last Partnership Board meeting, this item is an open ended discussion about this and other strategic funding questions facing the region. A series of questions and some background will be provided to jumpstart the discussion.

Sponsors:

Indexes:

Code sections:

Attachments: 4_Linking Transportation Funding and Housing Outcomes.pdf

Date	Ver.	Action By	Action	Result

Subject:

Linking Transportation Funding and Housing Outcomes (Anne Richman)

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MT

Memorandum

TO: Bay Area Partnership Board   DATE: February 16, 2018

FR: Executive Director

RE: <u>Linking Transportation Funding and Housing Outcomes</u>

In October 2017, the MTC Commission directed staff to follow up on several items that arose during the spirited discussions regarding linking RTIP funding to housing performance. While the Commission did not impose any additional housing related actions on the 2018 RTIP itself, the Commission's direction for additional analysis was incorporated into the RTIP policies and procedures (Attachments A and B: MTC Resolution No. 4308 and October 2017 Committee presentation, excerpts). Generally, the follow up items related to: further developing the "80k x 2020" housing incentive program (HIP), surveying all local Bay Area jurisdictions for their compliance with four housing laws, analyzing how to condition transportation funding on housing outcomes, and working with CMAs and other partners to understand housing opportunities and barriers in their areas.

In light of the Commission's direction to staff to address these specific issues, and in recognition of the Partnership's request to have a collaborative conversation, staff poses a few questions, below, to help guide the discussion at today's meeting. Background material on the housing challenge and recent housing production data are attached for your information (Attachments C and D).

1. In considering linking housing outcomes to transportation funding, what approaches do you think would be most effective in producing real results, i.e. more housing especially affordable housing in the Bay Area, such as carrots, sticks, direct housing funding, or other approaches? What fund sources are the best fit for such linking?

2. How can MTC/ABAG better support CMAs in identifying constraints and action steps that lead to moderate/affordable housing production in each county? How can the process and development of PDA Investment and Growth Strategies be improved to better guide OBAG and other transportation investments to support PDA development?

3. What role should transit operators have in encouraging housing production, especially on land that they own? How can MTC/ABAG support efforts already underway and encourage new efforts?

4. MTC often plays a coordination role: are there multi-agency initiatives that are envisioned or stalled, that MTC/ABAG could help invigorate? What are they and why are they not moving forward?

5. The Commission action calls for a staff report by July 2018 followed by a workshop. How does the Partnership Board want to engage in the discussion/dialogue?

We look forward to our discussion.

Steve Heminger

Attachment:
- Attachment A: Excerpts from MTC Resolution No. 4308, Revised (2018 RTIP Policies and Procedures)
- Attachment B: Excerpts from October 2017 Programming & Allocations Committee presentation
- Attachment C: Excerpts from January 2018 CASA Steering Committee presentation
- Attachment D: Memo from February 2018 ABAG Regional Planning Committee presentation

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MTC 2017 Housing Policies
as adopted with 2018 RTIP
MTC Resolution 4308
October 25, 2017

Housing Production and Preservation Incentive

The One Bay Area Grant (OBAG 2) program (MTC Resolution No. 4202) includes a challenge grant program for the production of affordable housing. The purpose of the program is to reward local jurisdictions that produce the most housing at the very low, low, and moderate levels. This challenge grant program sets a six year target for production of low and moderate income housing units (2015 through 2020), based on the housing unit needs identified through the Regional Housing Needs Allocation (RHNA) for 2015-2022. The target for the proposed challenge grant period is approximately 80,000 very low, low and moderate income units (35,000 very low, 22,000 low and 25,000 moderate units, for a total of 82,000 units, derived from the years of the current RHNA cycle). The units must be located in Priority Development Areas (PDAs) or in Transit Priority Areas (TPAs). Additionally, to be credited towards reaching the production targets, very low and low income units must be deed restricted; moderate income units do not require deed restriction to be credited in the program. In addition, the number of existing affordable housing units a jurisdiction preserves is also included for the purposes of this incentive program. At the end of the production and preservation challenge cycle, MTC will distribute grant funds to the jurisdictions that contribute the most toward reaching the regional production target.

As part of the 2018 RTIP, the OBAG 2 Housing Production Incentive challenge grant program described immediately above (also known as '80k by 2020') is augmented with $46 million of regionally-controlled RTIP funds identified in the regional set-aside programming section above, conditioned on these funds not being needed for Caltrain's project contingency, either because the project can be completed within budget or because substitute contingency funds are identified. The increased incentive amount at $76 million allows the '80k by 2020' top ten producers of affordable housing to be increased to the top fifteen producers and preservers of affordable housing among the region's 109 local jurisdictions. Further, at least one top city housing producer from each of the nine counties will be included in the top 15. Staff will provide progress reports on production of affordable housing units as part of OBAG 2 implementation updates.

The RTIP funding provided may be either federal or state funds, must be used only for federally- or State Highway Account-eligible transportation purposes, and must meet CTC STIP Guideline requirements.

By July 1, 2018, MTC/ABAG integrated staff will present recommendations to the MTC Programming and Allocations Committee on defining how these funds are distributed among the top 15 affordable housing-producing/preserving cities, and how to further develop the expanded '80k by 2020' housing challenge to work in concert with other funding criteria recommendations to incentivize housing outcomes across the region.

Supplemental Housing Condition Criteria Development

As the Regional Transportation Planning Agency (RTPA) for the Bay Area, MTC is responsible for developing RTIP project priorities consistent with the region's Regional Transportation Plan and also shares responsibility with the Association of Bay Area Governments (ABAG) for

developing and implementing a Sustainable Communities Strategy (SCS) that integrates transportation, land use, and housing policies to meet greenhouse gas (GHG) reduction goals (Government Code Section 65080(b) 2(B)). A key component of the combined RTP/SCS, per state statutory requirements, is that the plan demonstrate how the region can house 100% of the region's projected growth at all income levels. MTC's statutory responsibilities also require the RTP to consider the impact of transportation systems on a variety of facets of the region, including housing (Government Code Section 66509(b)), as well as the short- and long-term needs identified by plans prepared and adopted by ABAG (Government Code Section 66509(c)).

Consistent with the strategies and policies set forth in the current combined RTP/SCS, Plan Bay Area 2040, and MTC's statutory responsibilities to further encourage the production of affordable housing to meet identified needs, MTC/ABAG integrated staff will develop by July 1, 2018, supplemental housing condition criteria, including housing production, preservation, and protection, that would consider all funding sources, for public and stakeholder review. Following such review, staff will present revised criteria to a special Commission workshop, which will deliberate on the matter and recommend funding, legislative, or other actions as appropriate to the Commission for approval.

Further, by April 1, 2018, staff will work with staff of the nine Bay Area county Congestion Management Agencies (CMAs) to assess the Priority Development Area (PDA) planning process to identify action steps and constraints for housing production and affordable housing in PDAs.

Survey of State Housing Law Compliance
The MTC/ABAG integrated staff will survey local jurisdictions for compliance with four different state housing laws, and report the results to the Commission by July 1, 2018. The four state housing requirements are:
- State Housing Element Law: status of required rezoning of housing sites identified in local housing elements at appropriate minimum densities;
- Surplus Lands Act: status of required local implementation ordinances;
- State Density Bonus Law (AB 2135): status of required local density bonus implementation ordinances; and
- Accessory Dwelling Unit Streamlining (SB 1069, AB 2299, AB 2406): status of required local accessory dwelling unit streamlining ordinances.
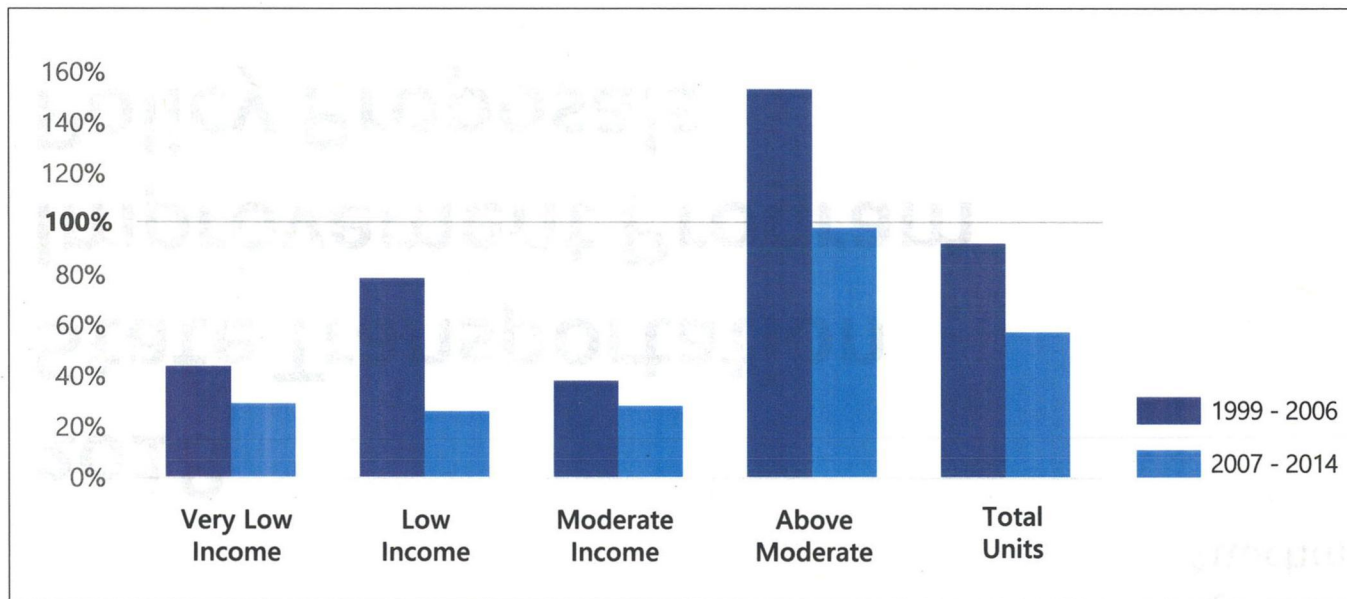
2018
State Transportation Improvement Program Policy Proposals

Programming and Allocations Committee
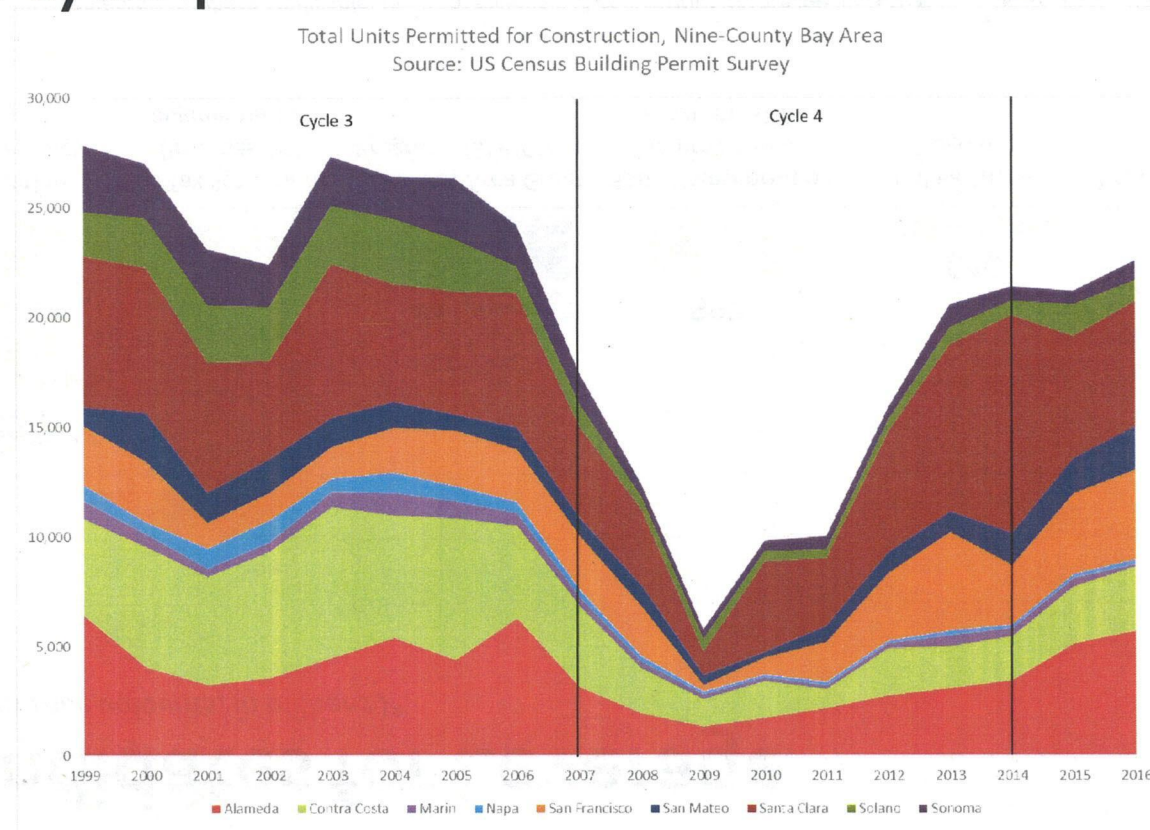
Item 4a

October 11, 2017

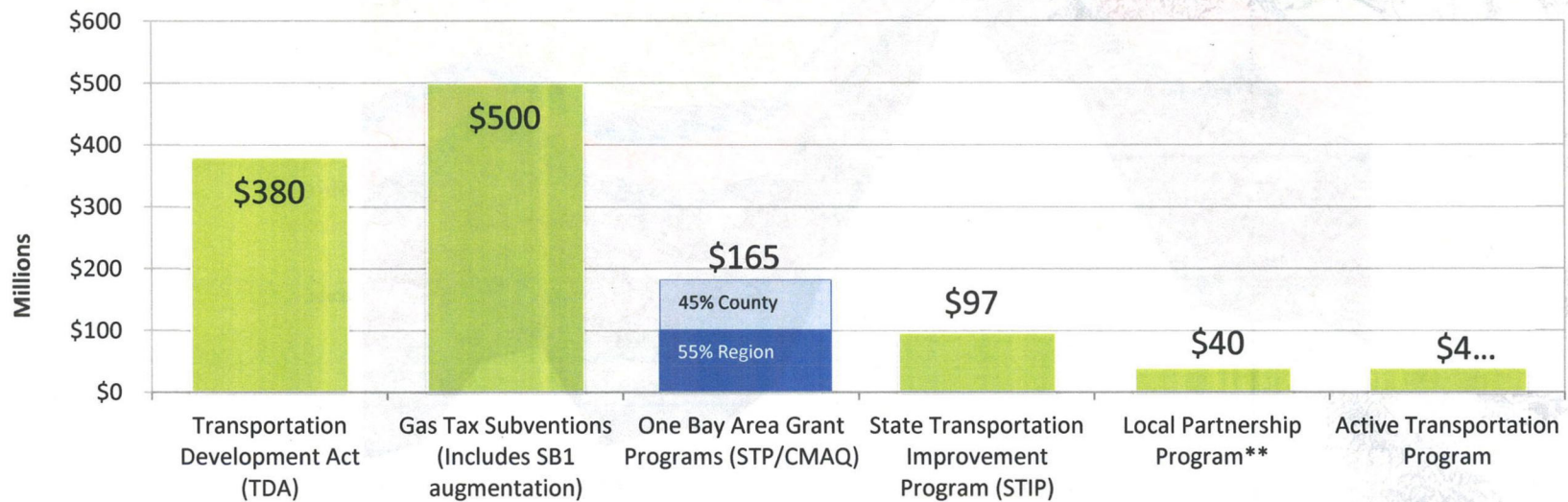# Share of Regional Housing Needs Allocation Permitted 1999-2014 San Francisco Bay Area

Regional average = 41%

Comparison of Building Permit Activity: Cycle 3 vs. Cycle 4

Total Units Permitted for Construction, Nine-County Bay Area
Source: US Census Building Permit Survey

Best Candidates for Leverage

*(Estimated annual revenue amounts, in millions)**

Notes:
*Includes SB1 formula funding augmentation where applicable; Does not include SB1 competitive programs
**Regional share is undetermined. Estimate assumes Bay Area receives 20% of statewide funding

4

Previous Policies: 1. Limited Strategic Housing Investments

OBAG 2 Framework, Proposed
FY 2018-22, $ in millions
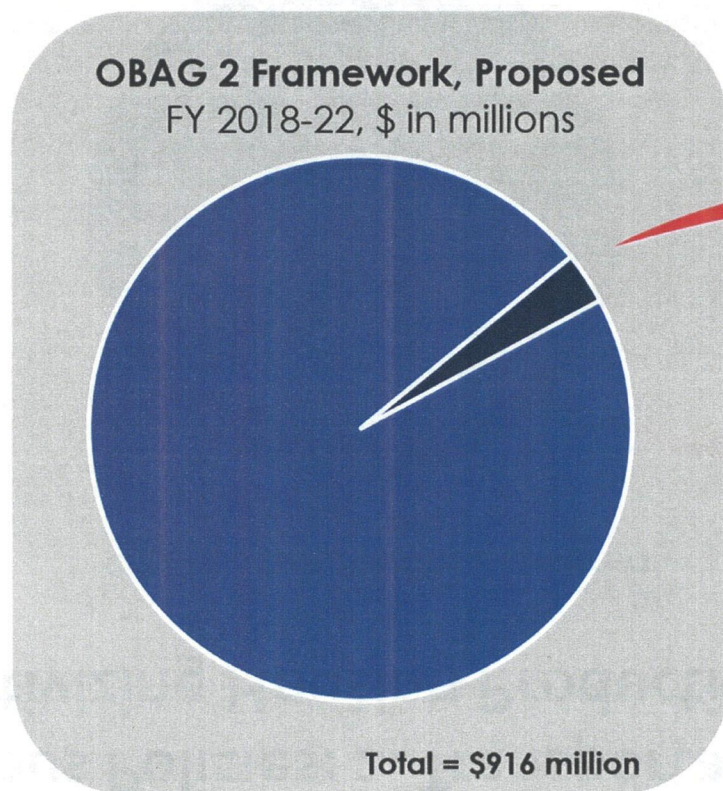
Housing Investments

$18 million	PDA Planning Grants
$10 million	NOAH*
$28 million	**Total**
	(3% of OBAG 2 total)

*Leveraging at 5:1

Total = $916 million

Previous Policies: 2. Transportation Investments Incentivizing Housing Production

OBAG 2 Framework, Proposed
FY 2018-22, $ in millions

Housing-Conditioned
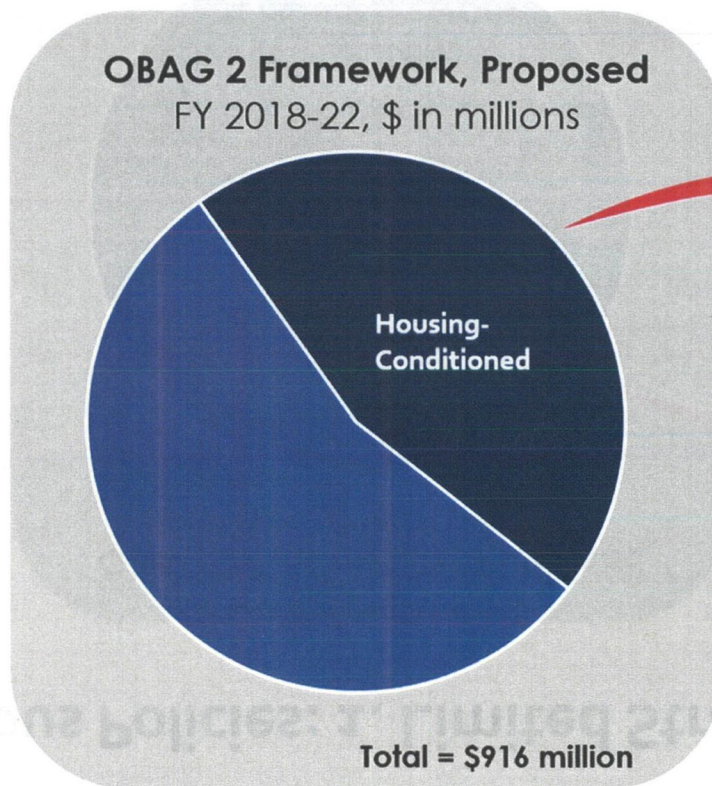
Total = $916 million

**Housing-Conditioned
Transportation Investments**

$386 million	County Program
$30 million	80k by 2020 Challenge
$416 million	**Total**
	(45% of OBAG 2 total)

Magnitude of the Undertaking

Job and Housing Growth and Projections, Bay Area 2010, 2015, 2040

A. PBA 2040 projects the region will add 1.3 million new jobs between 2010 and 2040.

B. PBA 2040 also projects that the region will add 820,000 new homes in that time.

C. By 2015, the region added almost half that projected job growth, or 617,000 of the 1.3 million jobs.

D. By comparison, the region added only 56,000 new homes between 2010 and 2015, or 7 percent of the total projected for 2040.

Jobs and Housing Growth and Projections, Bay Area, 2010-2040

Source: PBA 2040 Growth Forecast and Projections

Legend:
- 2010
- 2015
- 2040

Jobs bar:
- 673,000 To Add (2040)
- 617,000 Added (2015)
- 1.3 million

Housing bar:
- 767,000 To Add (2040)
- 56,000 Added (2015)
- 820,000
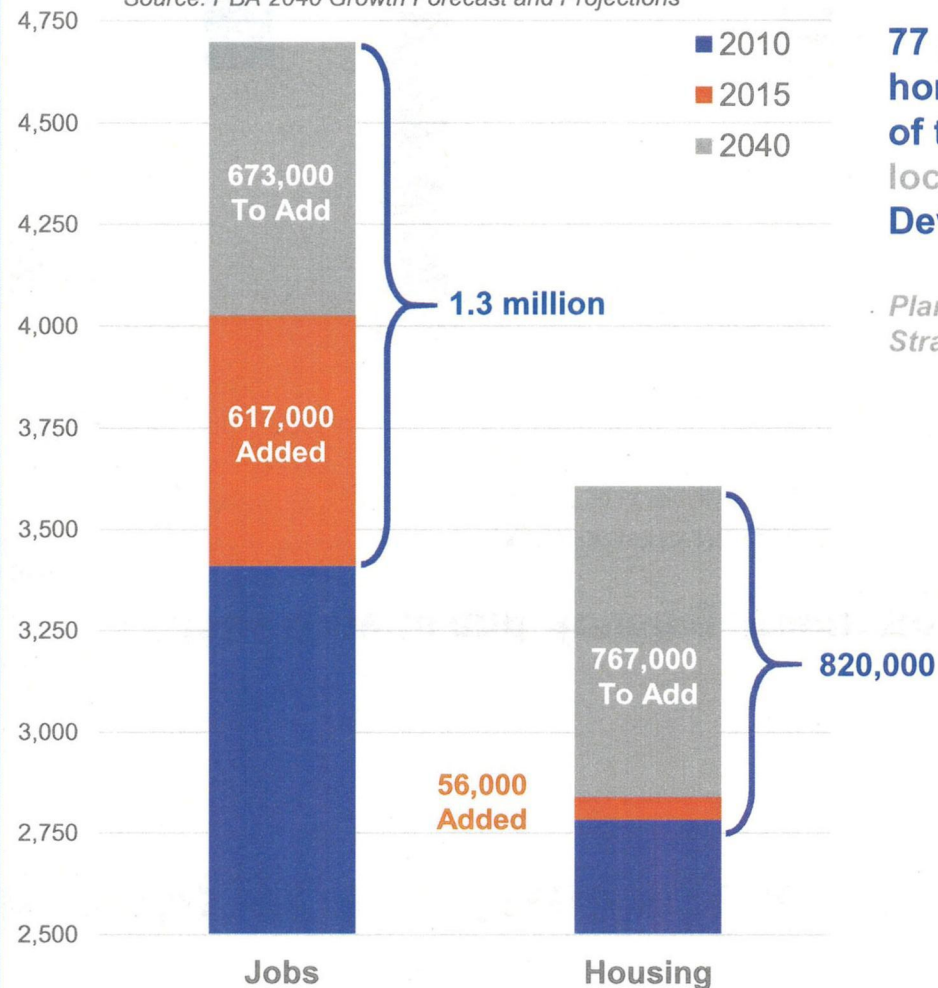
77 percent of the new homes and **55 percent of the new jobs** will be located **in Priority Development Areas**.
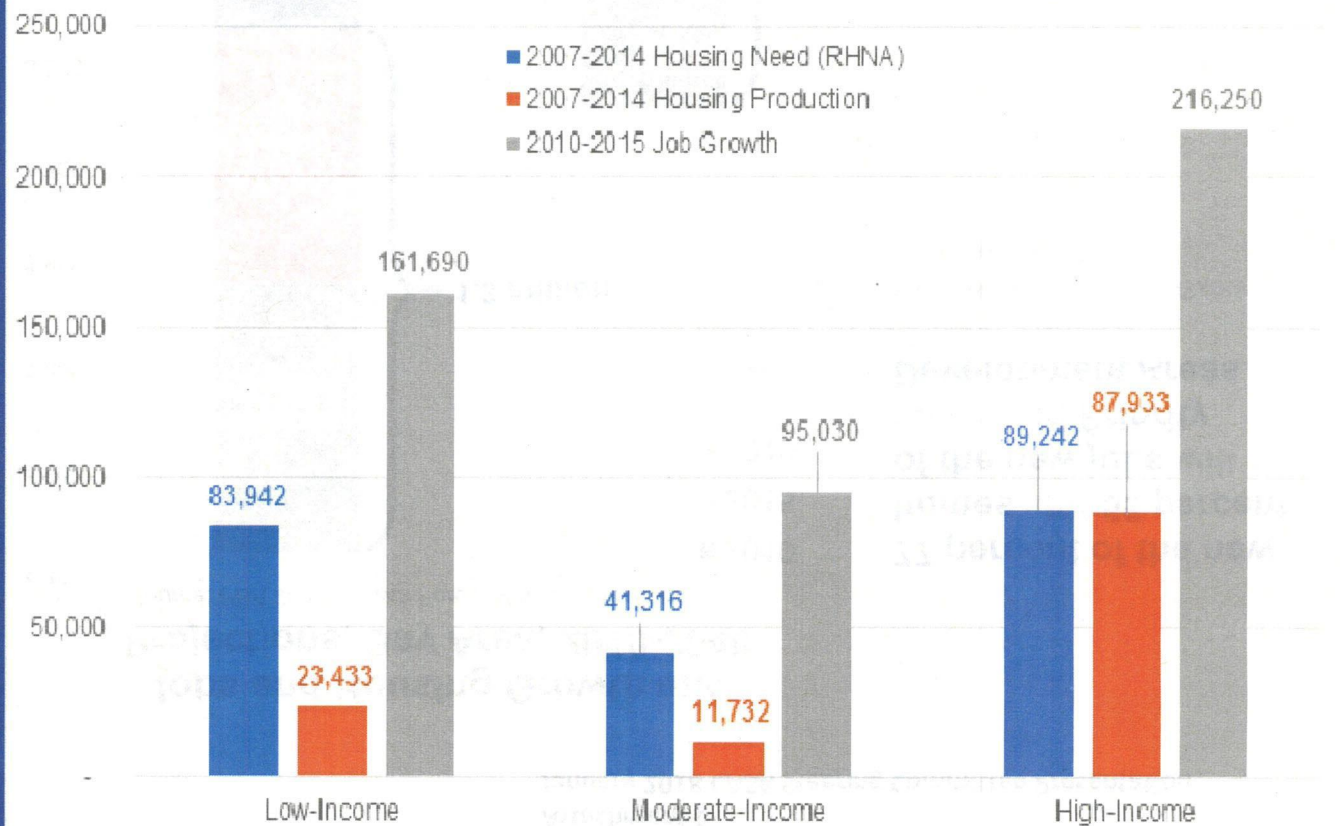
Plan Bay Area 2040 Growth Strategy, 2010-2040

Magnitude of the Undertaking

Housing and Population Growth in the Bay Area

A. Jobs and population growth is anticipated to outpace housing production.

B. Estimates of funding needed to build a sufficient number of deed-restricted affordable units range from $1 billion to $3 billion annually.

Jobs Growth and Housing Production, Bay Area

- 2007-2014 Housing Need (RHNA)
- 2007-2014 Housing Production
- 2010-2015 Job Growth

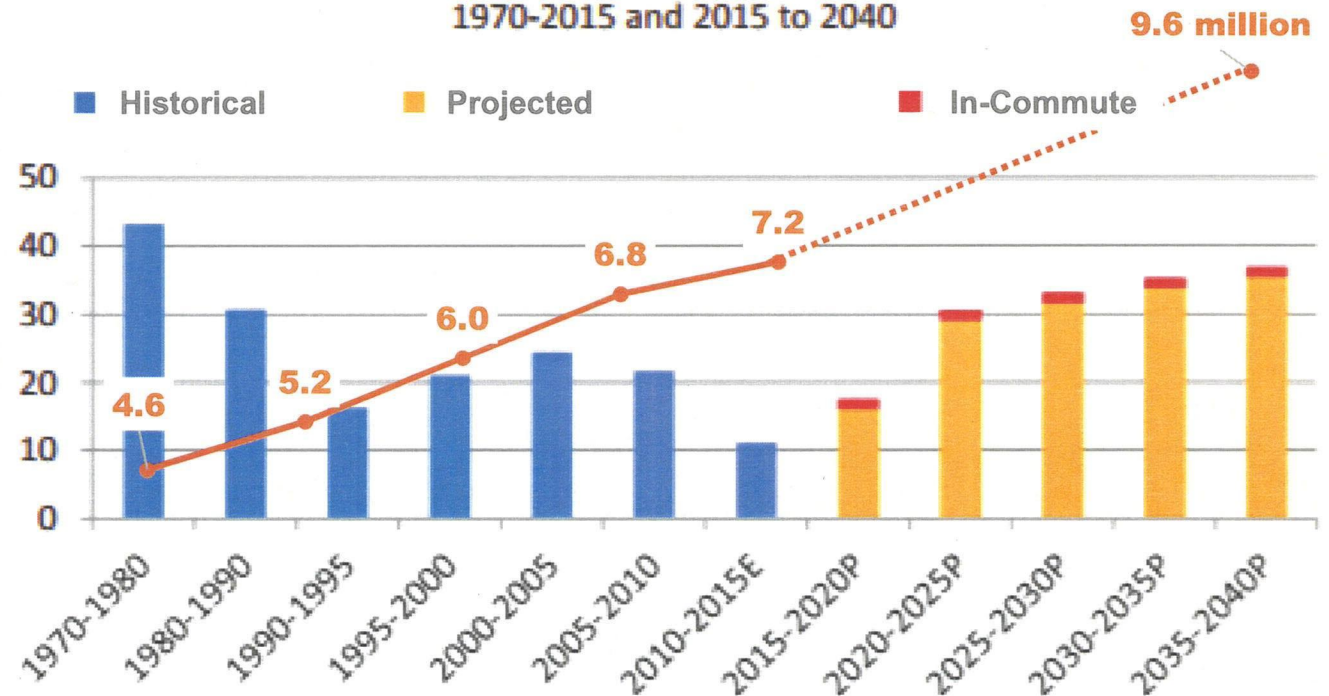| Income	2007-2014 Housing Need (RHNA)	2007-2014 Housing Production	2010-2015 Job Growth
Low-Income	83,942	23,433	161,690
Moderate-Income	41,316	11,732	95,030
High-Income	89,242	87,933	216,250

Source: MTC/ABAG compilation of data

Magnitude of the Undertaking

Housing and Population Growth in the Bay Area

A. The region's population was 4.6 million in 1970 and is projected to grow to 9.6 million by 2040.

B. PBA 2040 projects the region will ramp up to building 35,000 homes per year between 2030 and 2040.

C. Between 2000 and 2015, the region built an average of 18,000 homes annually.

D. By comparison, the region built 42,000 new homes annually between 1970 and 1980.

Annual Housing Production, Historic and Projected
1970-2015 and 2015 to 2040

Legend: Historical, Projected, In-Commute

Data points: 4.6, 5.2, 6.0, 6.8, 7.2, 9.6 million

X-axis categories: 1970-1980, 1980-1990, 1990-1995, 1995-2000, 2000-2005, 2005-2010, 2010-2015E, 2015-2020P, 2020-2025P, 2025-2030P, 2030-2035P, 2035-2040P

Source: US Census Bureau, CA Department of Finance, MTC/ABAG

ASSOCIATION OF BAY AREA GOVERNMENTS

Representing City and County Governments of the San Francisco Bay Area
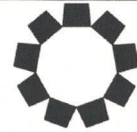
ABAG

Date: January 26, 2018

To: Regional Planning Committee

From: Executive Director

Subject: **Analysis of 2016 Permits and Local Policies and Launch of New Housing Data Portal**

Overview

For the past several years, staff has generated datasets that provide new insights into housing trends in the Bay Area and the work local governments are doing to meet the region's housing needs. These datasets include a map of all housing sites identified by jurisdictions in their Housing Elements, a directory of key housing policies adopted in each jurisdiction, and a database of the parcel-specific location and affordability levels of all permits issued for new housing.

This report describes the addition of the 2016 permit data to the existing database of 2014 and 2015 permits, an update to the housing policy directory, and the introduction of a new online housing data portal that will make it easier to access these datasets. It includes summary findings from analysis of the 2016 permit data and adopted local housing policies. See *Attachment 1* (permits) and *Attachment 2* (policies) for more details.

These datasets provide a resource to inform the development and evaluation of effective housing policies and programs related to CASA—the Committee to House the Bay Area grapples with how to address the region's housing supply, affordability, and displacement challenges. The parcel-specific permit data enables staff to analyze spatial trends, including the region's progress in implementing the Priority Development Area (PDA[1])-focused growth pattern identified in Plan Bay Area.

Housing Incentive Pool

The data also supports MTC's efforts to link transportation funding based upon local performance in producing and preserving housing, such as the new Housing Incentive Pool (HIP) challenge grant program for the production of affordable housing outlined in the One Bay Area Grant (OBAG2) Program. The purpose of HIP is to reward local jurisdictions that permit or preserve the most housing units at the very low, low, and moderate income levels, and sets a six year target for production of very low, low, and moderate income housing units (2015 through 2020), based on the housing unit needs identified through the Regional Housing Needs Allocation (RHNA) for 2015-23. The target for the proposed challenge grant period is

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[1] PDAs are locally nominated areas where housing, employment, amenities and services can be developed to meet the day-to-day needs of residents and workers in a pedestrian-friendly environment served by transit.

approximately 80,000 very low-, low- and moderate-income units[2]. At the end of the production challenge cycle, MTC will distribute transportation funding to the jurisdictions that contribute the most toward reaching the regional production target. The 2015 and 2016 permit data reflect two years of data of the six-year program timeframe. It is important to note that the weighting and details of the HIP funding distribution will be finalized this spring.

The 15 jurisdictions that have issued the most permits that meet the production criteria for the Housing Incentive Pool are:[3,4]

2015		2016		2015 & 2016	
San Francisco	528	San Francisco	857	San Francisco	1,385
Gilroy	260	Livermore	365	San Jose	384
American Canyon	148	San Jose	314	Livermore	373
Oakland	128	Alameda County	85	Gilroy	260
Alameda County	103	Walnut Creek	58	Alameda County	188
Palo Alto	80	San Bruno	43	Oakland	167
Berkeley	70	Santa Rosa	43	American Canyon	148
San Jose	70	Oakland	39	Palo Alto	80
Dublin	69	Alameda	36	Alameda	78
Fremont	64	San Carlos	23	Berkeley	74
Sunnyvale	48	Morgan Hill	22	Dublin	71
Alameda	42	Campbell	19	Fremont	64
Pleasanton	38	Lafayette	12	Walnut Creek	58
San Mateo	34	Mountain View	10	Sunnyvale	49
Cloverdale	32	South San Francisco	8	San Bruno	43

MTC has stipulated that the list of top performers must include at least one jurisdiction from each county. To meet this requirement, the following changes would be made to the table above:

| 2015		2016		2015 & 2016	
Removed		*Removed*		*Removed*	
Alameda	42	South San Francisco	8	Sunnyvale	49
Pleasanton	38				
Added		*Added*		*Added*	
El Cerrito	19	San Rafael	3	Mill Valley	5
Mill Valley	5				

To date, no units meeting the HIP criteria have been issued in Solano County. No units meeting the criteria were issued in Napa County in 2016.

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[2] 35,000 very low, 22,000 low and 25,000 moderate units, for a total of 82,000 units, derived from the years of the current RHNA cycle.

[3] These totals only include permits for new units. Staff will be collecting data about total affordable units preserved in PDAs and TPAs in spring 2018.

[4] The HIP program requires that permits for new units be deed restricted if they are for very low- or low-income households. These totals do not distinguish between deed-restricted units and non-deed-restricted units. That data will be updated in spring 2018.

Top Performing Jurisdictions for Housing Incentive Pool, Permits Issued 2015 & 2016
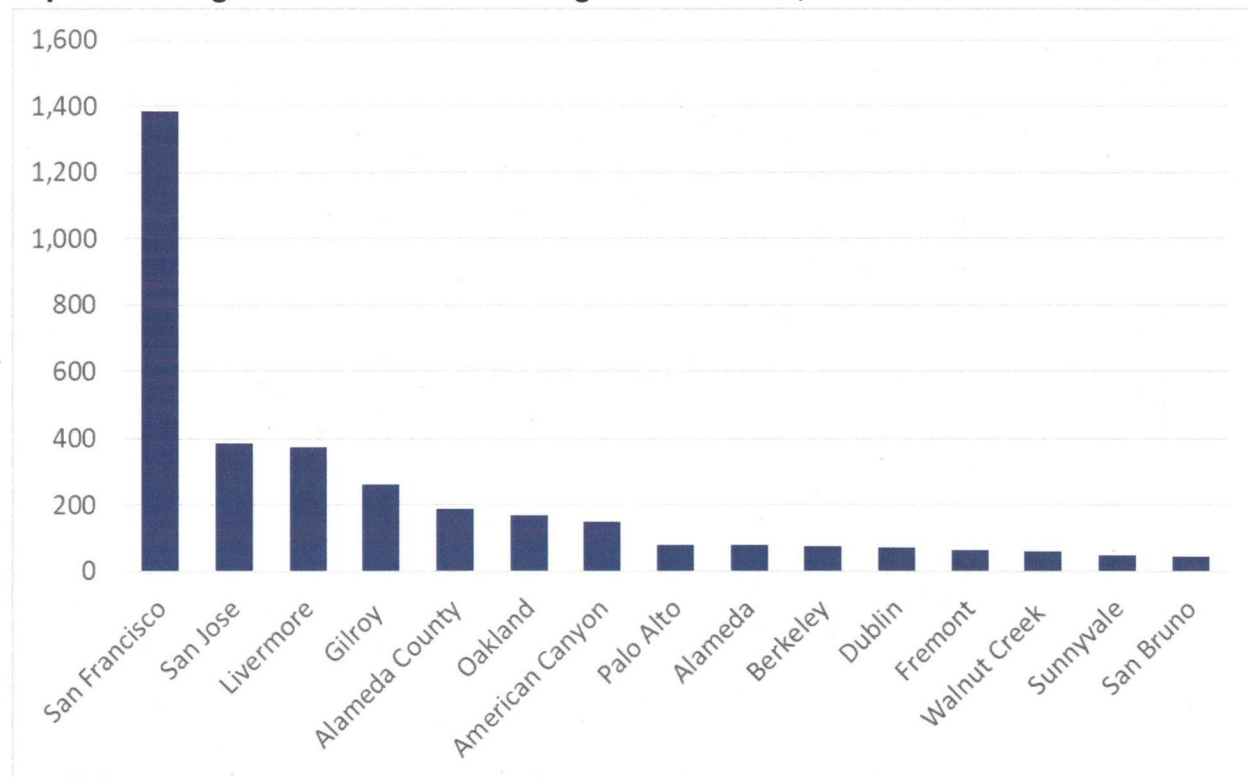
Summary Findings from 2016 Permit Data Analysis

- ***The Bay Area did not issue enough permits to meet the region's housing needs.***
  Jurisdictions issued permits for 21,320 new units.[5] This falls short of the 23,499 units per
  year needed to meet the region's eight-year need as determined by the California
  Department of Housing and Community Development (HCD) and was significantly below
  the annual level (27,433) encompassed in the Plan Bay Area 2040 forecast[6]. Each year
  of insufficient production exacerbates the need for higher levels of production in future
  years.

- ***The shortfall was particularly acute for very low-, low- and moderate-income
  households.*** 82% of units were for above moderate-income households (120% or more
  above the area median income), nearly double the share of the region's total need for
  this income group (42%) according to HCD's determination.

- ***The share of growth in PDAs falls short of Plan Bay Area 2040 goals.*** 60% of units
  are in PDAs—far short of Plan Bay Area's goal for 77% of new households to be in
  PDAs. To meet the Plan's goals, the region will have to not only increase the total
  amount of housing built in the future, but specifically the amount built in PDAs.

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[5] The analyses for units in specific geographies, such as PDAs and Housing Element Sites, use the total number of units that
could be mapped. Of the 21,320 housing units for which permits were issued in the Bay Area in 2016, ABAG was able to map
20,970 (98.4%).

[6] *Regional Forecast of Jobs, Population and Housing*, ABAG/MTC, July 2017, page 1.

- ***Most new homes are not on opportunity sites identified in local Housing Elements.*** In 2016, 24% of the housing units for which permits were issued in the Bay Area were on parcels jurisdictions identified in their 2015-2023 housing site inventories. Although we know the location of the units for which permits were issued, we do not have a region-wide inventory of local zoning that would enable analysis of the types of sites where new homes are being sited.

Summary Findings from Local Housing Policy Survey

In February of 2017, staff surveyed cities and counties about local adoption of key housing policies and programs they are using to increase housing supply and affordability, preserve existing housing choices, and protect residents from displacement. Findings from the survey, which updated a similar scan in 2014, are presented on the Bay Area Metro website where twenty-seven featured local housing policies are organized into three categories: Planning for Production, Funding Housing Affordability, or Stabilizing Neighborhoods.

- Many jurisdictions are searching for ways to focus growth and investment in existing neighborhoods while retaining community stability, having adopted from one to twenty-three of the featured policies; nine, on average.

- While there is a wide variety in the policies in use, a set of four policies (Flexible Parking Requirements, Condominium Conversion Ordinances, Inclusionary Housing, and In-Lieu Fees) represent a strong Bay Area norm, having been adopted in some form by 50% of all jurisdictions.

- The category with the least number of policies implemented is Funding Housing Affordability (17%). With the dissolution of Redevelopment Agencies and the decreasing availability of federal funding, this finding highlights the need to continue aggressively striving toward innovative strategies that will help fund affordable housing for very low, low, and moderate-income households.

- While only 15 jurisdictions have adopted Rent Stabilization or Just Cause Eviction Controls, these policies protect nearly 25% of the region's renter households from economic displacement.

- Because each jurisdiction is different and because the particulars of similar local ordinances differ across jurisdictions, measuring the specific positive contribution that particular policies and ordinance features make to local achievement of housing goals for production, equity and sustainability would require more research.

New Online Housing Data Portal

Staff is pleased to announce the release of a new online housing data portal, available at http://housing.abag.ca.gov. The portal provides easy access to data related to local adoption of housing policies and housing permit activity in the Bay Area. The two datasets included in the portal are described in more detail below.

Housing Permit Activity

The data portal maps all permits issued in 2014, 2015, and 2016. The permit explorer makes it easy for users to filter the data by the year the permit was issued, the level of affordability, and

the housing type (single-family, multi-family, Accessory Dwelling Unit, etc.). Users can view these details for each new development. The explorer also allows users to see developments in relation to specific geographies, including PDAs, Transit Priority Areas (TPAs), and Housing Element Opportunity Sites.
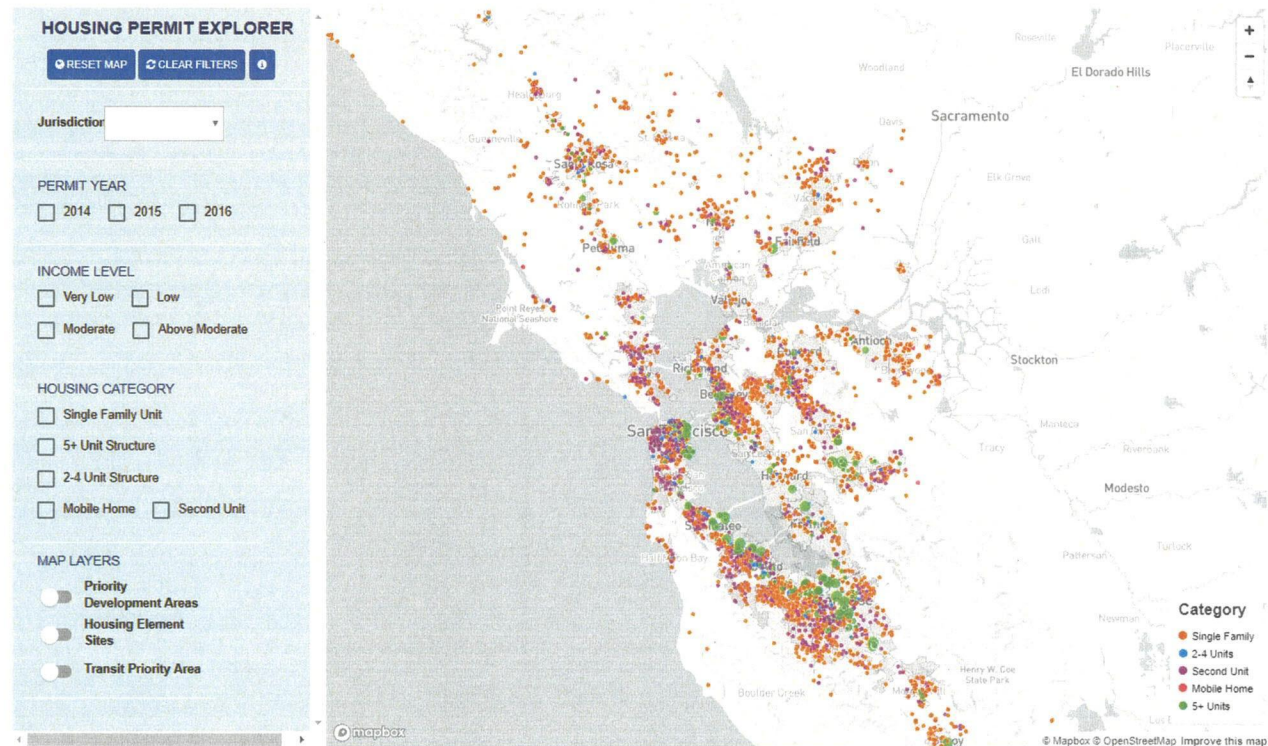
Housing Policy Directory and Toolkit

Users of the data portal will be able to see at a glance which Bay Area jurisdictions that responded to the survey have adopted a particular policy and be able to easily access more details about different policy options, including links to a toolkit of best practices and model ordinances. The purpose of the policy directory and toolkit is to facilitate regional information sharing that helps jurisdictions better address their communities' housing needs.

SHOWING ALL CATEGORIES

Flexible Parking Requirements 79 jurisdictions	Condominium Conversion Ordinance 66 jurisdictions
Inclusionary Housing Ordinance 65 jurisdictions	In-Lieu Fees (Inclusionary Zoning) 55 jurisdictions
Homeowner Repair or Rehabilitation 53 jurisdictions	Streamlined Permitting Process 49 jurisdictions
By-Right Strategies 45 jurisdictions	Surplus Public Lands Act 37 jurisdictions
Locally-Funded Homebuyer Assistance 36 jurisdictions	Commercial Development Impact Fee 35 jurisdictions
Housing Development Impact Fee 34 jurisdictions	Reduced Fees or Permit Waivers 33 jurisdictions
Acquisition Rehabilitation or Conversion 29 jurisdictions	General Fund Allocation 28 jurisdictions

SEARCH POLICIES

Search

FILTER BY CATEGORY

ALL CATEGORIES

PLANNING
FOR PRODUCTION

FUNDING
HOUSING AFFORDABILITY

STABILIZING
NEIGHBORHOODS

Conclusion

The Bay Area's continued housing affordability challenges have increased the sense of urgency for action to produce more housing, preserve existing affordability, and protect residents from displacement. As a partnership among a diverse, multi-sector group of stakeholders, CASA is poised to harness this heightened interest to be a catalyst for identifying and implement high-impact strategies for meeting the Bay Area's housing needs. As the region's leaders have increased their focus on finding solutions to the crisis, there is increased attention on the need for solid data to inform and evaluate housing policies and funding programs.

MTC has committed to exploring opportunities to use the allocation of transportation funding as an incentive for local jurisdiction actions to increase housing production and preservation, as noted above with the Housing Incentive Pool. As part of this effort, staff has been working with local staff to collect information about compliance with state-mandated housing policies and about the number of housing units preserved with long-term affordability restrictions. Staff is committed to working with jurisdictions to respond to the new APR reporting requirements that should provide needed insights into the entitlement and development process and to ensuring we continue to have access to detailed data about local jurisdiction permitting activity. These detailed datasets provide the foundation for the work of the Bay Area's leaders and stakeholders in developing strategies to ensure that the region can provide a range of affordable housing choices for the region's residents.

Attachments

1. Analysis of Bay Area 2016 Housing Permitting Activity
2. 2017 Analysis of Bay Area Housing Policies and Programs

Steve Heminger

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6

Analysis of Bay Area 2016 Housing Permitting Activity

In 2015, staff began conducting an annual survey of all Bay Area jurisdictions to collect data about the affordability, housing type, and parcel-specific location for every permit issued. This effort built upon the requirements of the state-mandated Housing Element[1] Annual Progress Report (APR), but the extra step of obtaining the data by parcel location was essential to staff's ability to evaluate the extent to which new housing is being directed to Priority Development Areas (PDAs) and other transit-served locations and whether new homes are developed on the opportunity sites identified in jurisdictions' Housing Elements.

ABAG's approach provided a model for refinements to the APR requirements in Senate Bill 35 (Wiener), which was recently signed into law as part of the 2017 Housing Package. Going forward, California jurisdictions will be providing more detailed data about every permit issued as it progresses through the approval process. This expanded dataset will enable more robust analysis of the state's housing patterns, including whether new homes are near transit, changing trends in housing types or affordability, how projects change during the entitlement process, and how long it takes to secure approvals.

Staff has been working with local governments since February 2017 to compile the 2016 permit data. Analysis of the 2016 data reveals that:

The Bay Area did not issue enough permits to meet the region's housing needs. Permits were issued for 21,320[2] new housing units. This is comparable to 20,437 units in 2015 and 22,447 units in 2014 (Figure 1). The permit activity for all three years falls short of the average of 23,499 units per year that would have to be permitted to meet the Bay Area's total need of 187,994 units for the eight-year Regional Housing Need Allocation (RHNA) period.[3] As context, 114,000 jobs were added in the region between January 2015 and January 2016.[4] Figure 2 shows the total units for which permits were issued in each county.

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[1] Every eight years the California Department of Housing and Community Development (HCD) uses a demographic forecast to determine the total housing need for the Bay Area, by affordability level. The Regional Housing Need Allocation (RHNA) process assigns each jurisdiction a share of this total need, which it must then plan to accommodate by updating its General Plan Housing Element.

[2] Of the 21,320 housing units for which permits were issued in the Bay Area in 2016, ABAG was able to map 20,975 (98.4%). In 2015, ABAG was able to map 20,241 (99.0%) of the 20,437 units for which permits were issued and, in 2014, 21,510 (95.8%) of the 22,447 units for which permits were issued. The analyses for units in specific geographies, such as PDAs and Housing Element Sites, use the total number of units that could be mapped.

[3] This analysis focuses on progress toward RHNA goals because they are the established standard against which jurisdiction actions are judged. However, it is important to note that the need determination is not updated frequently, so it may underestimate actual housing needs because it does not respond to changing conditions, such as the region's recent rapid job growth.

[4] EDD Quarterly Census of Employment and Wages confidential data.

1

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Figure 1: Total Units for Which Permits Were Issued in the Bay Area, by Affordability

Figure 1: Total Units for Which Permits Were Issued in the Bay Area, by Affordability

Figure 2: Total Units for Which Permits Were Issued in 2016 in the Bay Area, by County
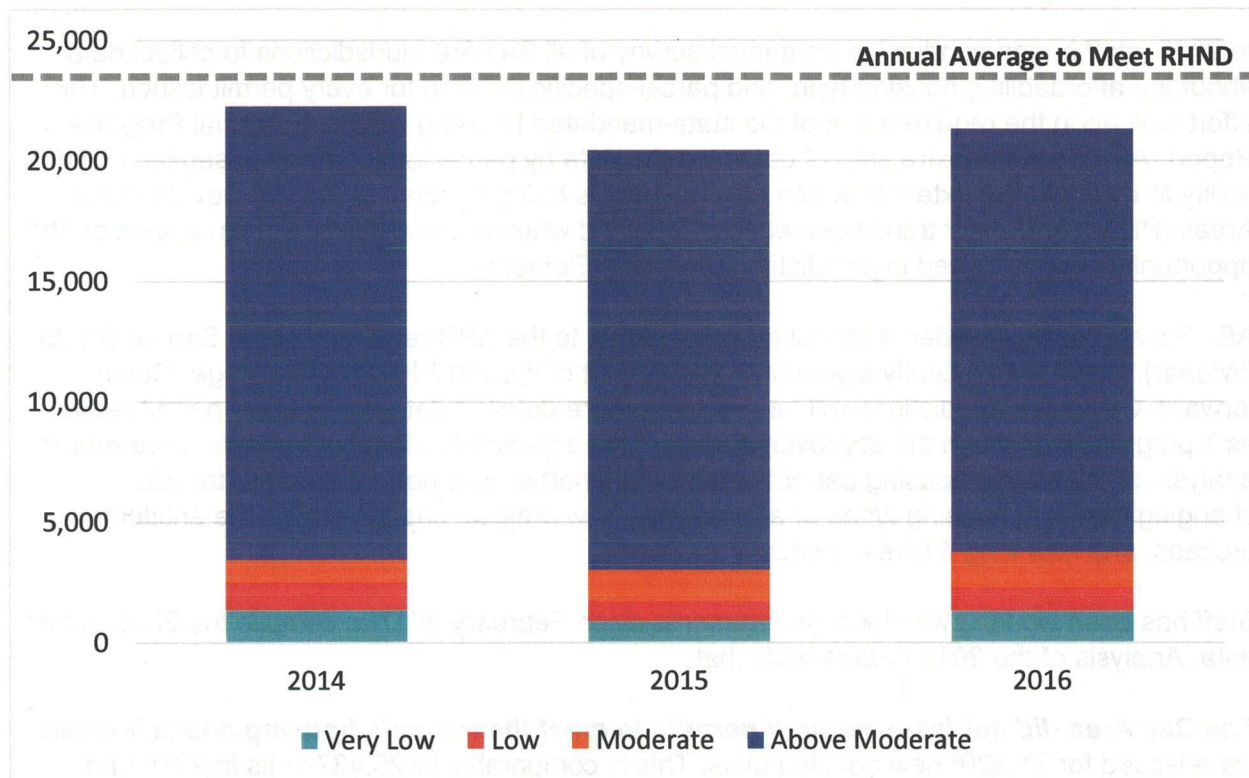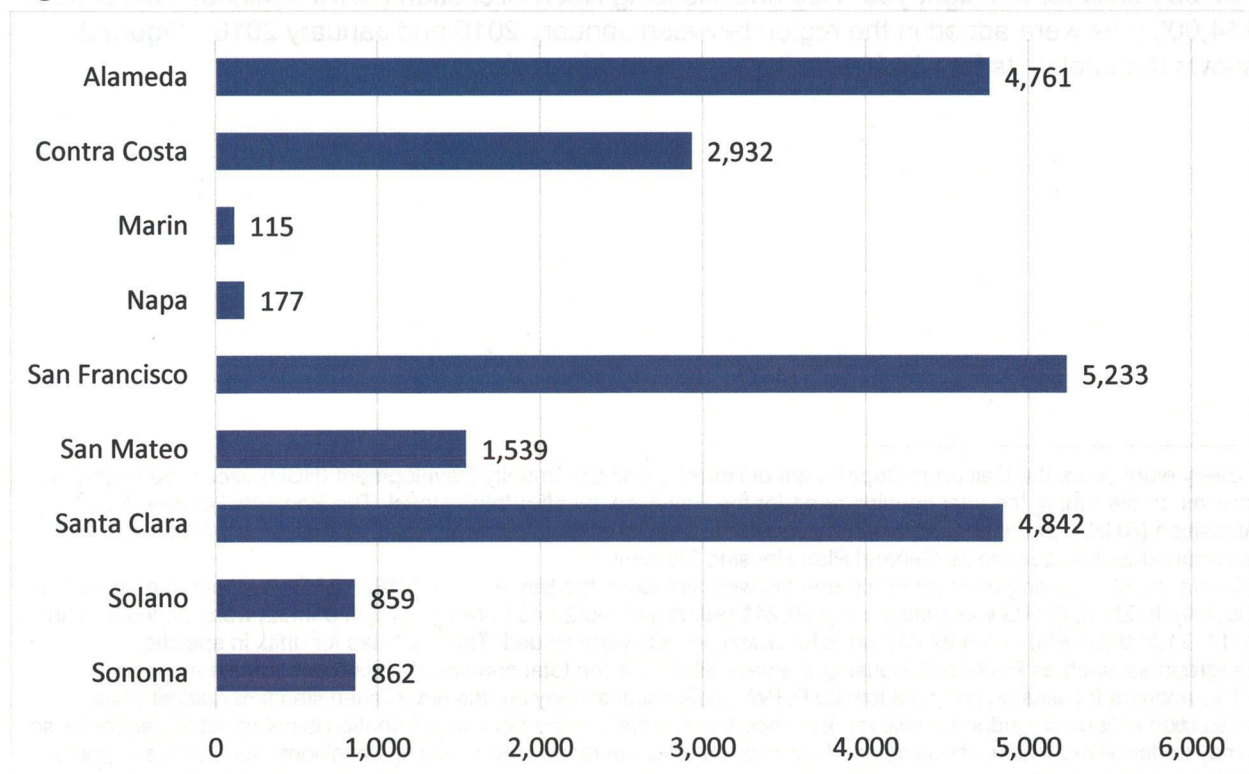

Figure 2: Total Units for Which Permits Were Issued in 2016 in the Bay Area, by County
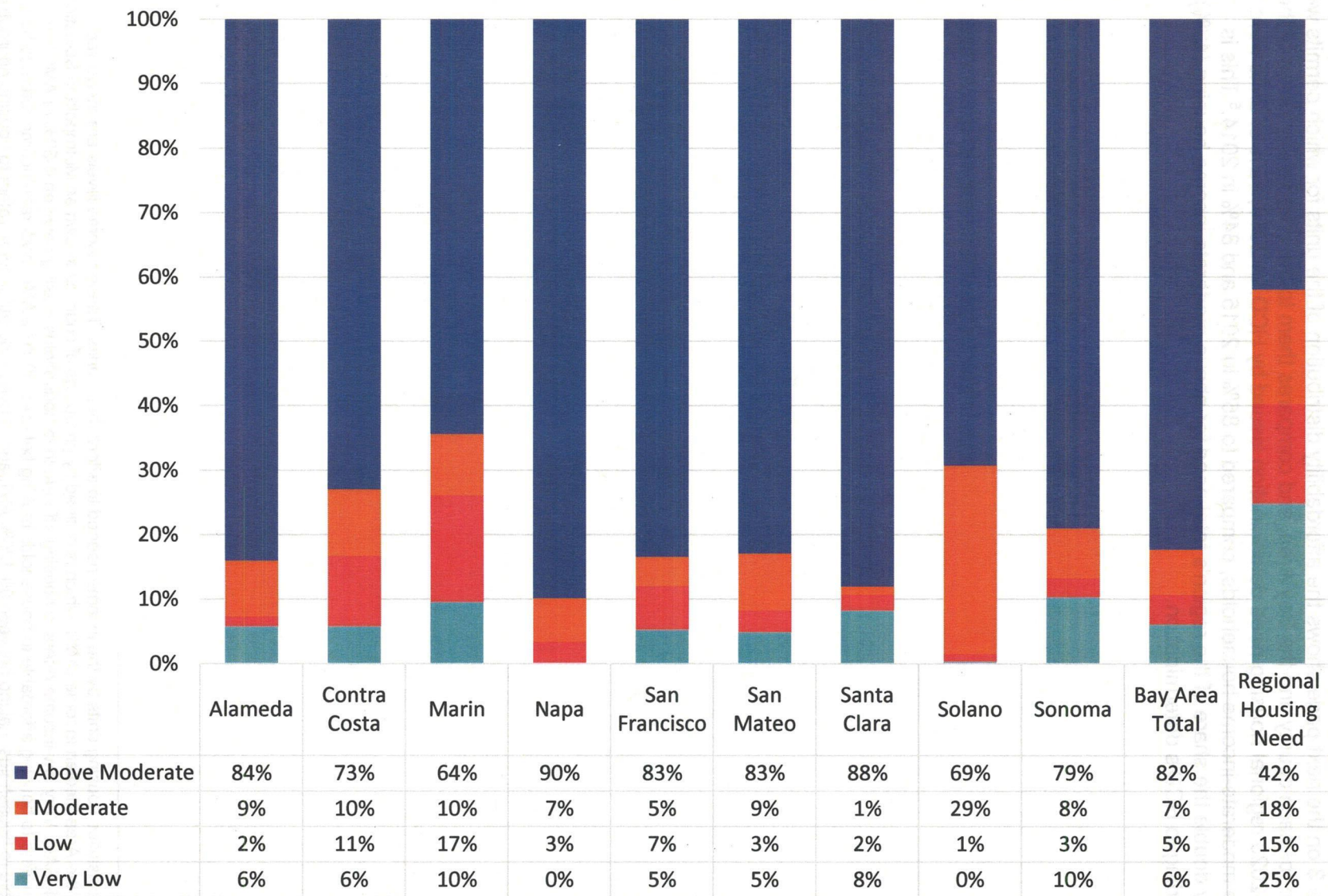
The shortfall was particularly acute for very low-, low- and moderate-income households.
Figure 3 on the next page shows the affordability distribution of the units for which permits were issued for each county and the Bay Area, and compares them to the affordability levels of the 2015-2023 regional housing need determination issued by HCD. In 2016, 82% of units were for above moderate-income households, compared to 85% in 2015 and 84% in 2014.[5] This is nearly double the share of the region's total need for above-moderate income housing (42%) according to HCD's determination.

---

[5] HCD classifies housing units by the income needed to afford those units. These income levels are measured against the Area Median Income (AMI), which is defined by groupings of counties known as Metropolitan Statistical Areas (MSAs). Very low-income refers to housing affordable to households making between 0-50% of AMI, low-income refers to housing affordable to households making between 50-80% AMI, moderate-income refers to housing affordable to households making between 80-120% AMI, and above moderate-income refers to housing affordable to households making 120% or more AMI.
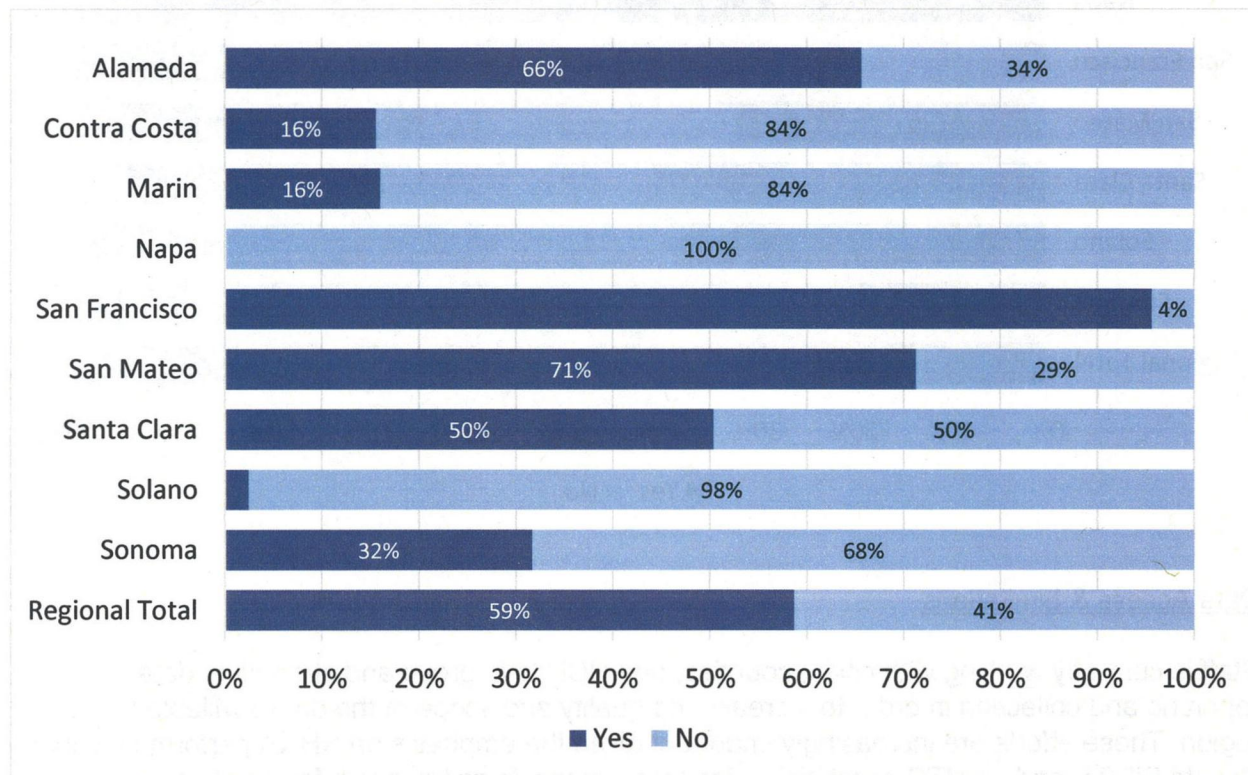
Figure 3: Affordability of Units for Which Permits Were Issued in 2016 Compared To Regional Housing Need Determination

	Alameda	Contra Costa	Marin	Napa	San Francisco	San Mateo	Santa Clara	Solano	Sonoma	Bay Area Total	Regional Housing Need
■ Above Moderate	84%	73%	64%	90%	83%	83%	88%	69%	79%	82%	42%
■ Moderate	9%	10%	10%	7%	5%	9%	1%	29%	8%	7%	18%
■ Low	2%	11%	17%	3%	7%	3%	2%	1%	3%	5%	15%
■ Very Low	6%	6%	10%	0%	5%	5%	8%	0%	10%	6%	25%

The share of growth in PDAs falls short of Plan Bay Area 2040 goals. In 2016, 60% of all mapped units for which permits were issued were in PDAs, compared to 51% in 2015 and 62% in 2014. In 2016, most multi-family homes (77%) were in PDAs, which is higher than in 2015 (68%) and 2014 (76%). In 2016, two thirds of homes affordable to very low-income households were in PDAs, 45% of homes affordable to low-income households, 49% of homes affordable to moderate-income households, and 61% of homes affordable to above moderate-income households were in PDAs.

Figure 4 shows the share of 2016 units in PDAs, by county. While the region appears to be moving toward more infill, transit-oriented development consistent with the vision in Plan Bay Area, additional incentives and policies will likely be required to meet the long-term goal of 77% of new households in PDAs. Continued monitoring of permits by parcel will help show whether the policies and incentives adopted as part of Plan Bay Area will increase the proportion of new housing in PDAs over time.
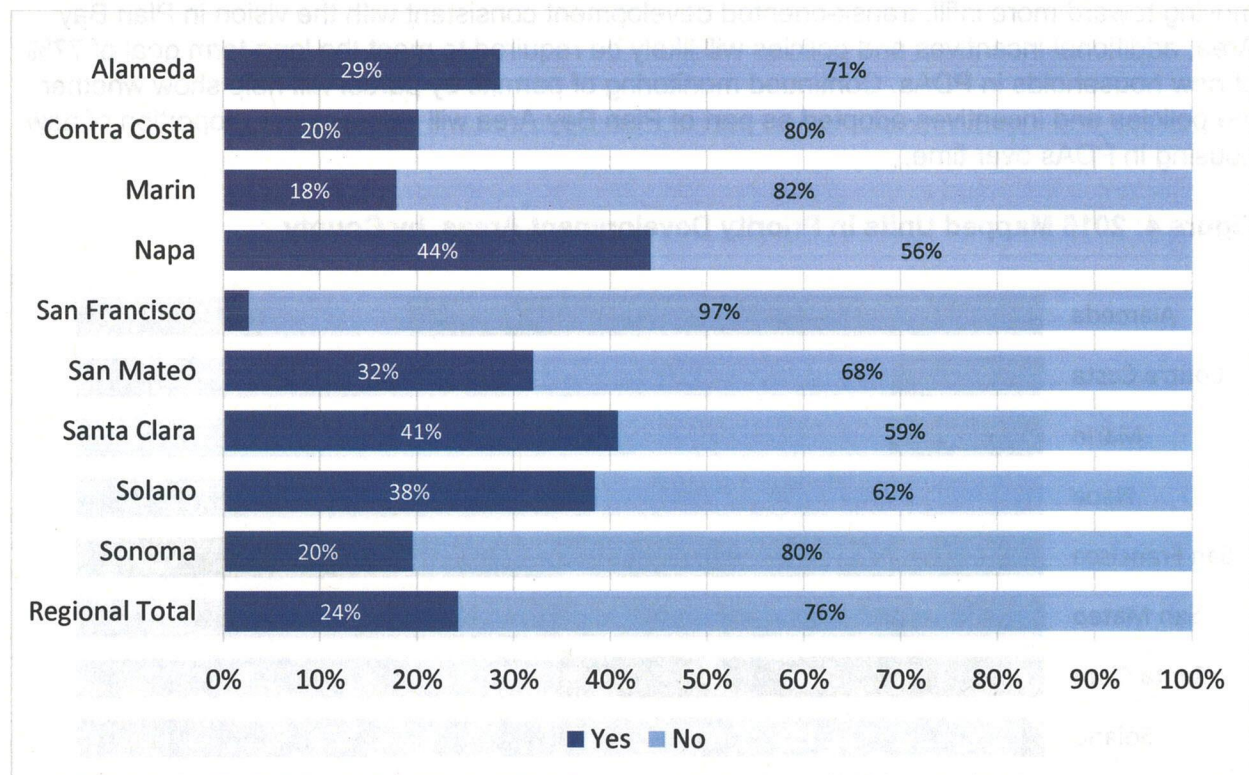
Figure 4: 2016 Mapped Units in Priority Development Areas, by County

County	Yes	No
Alameda	66%	34%
Contra Costa	16%	84%
Marin	16%	84%
Napa		100%
San Francisco		4%
San Mateo	71%	29%
Santa Clara	50%	50%
Solano		98%
Sonoma	32%	68%
Regional Total	59%	41%

Most new homes are not on opportunity sites identified in local Housing Elements. In 2016, 24% of the mapped housing units for which permits were issued in the Bay Area were on parcels jurisdictions identified in their 2015-2023 housing site inventories. Figure 4 shows the shares for each county. The share for the region is similar to 2015 (26%) but lower than 2014 (36%). The shares of multi-family units on housing element sites are similar to the shares for total units: 24% in 2016, 26% in 2015, and 43% in 2014. For 2016, 37% of units affordable to very low-income households, 5% of units affordable to low-income households, 27% of units affordable to moderate-income households, and 24% of units affordable to above moderate-income households are on housing element sites.

It is important to note that State law requires that jurisdictional Housing Elements demonstrate adequate zoned capacity within a city or county by listing one possible set of parcels on which an adequate number of housing units could be built. These sites are markers for where jurisdictions assure that housing development *could* go, but not necessarily where future housing *will* go. Ultimately, development is driven by developer interest, the availability of financing or subsidy sources (in the case of deed-restricted affordable housing), where developers expect to maximize their investment, and local zoning and review policies.

Figure 5: 2016 Mapped Units on RHNA Sites, by County

County	Yes	No
Alameda	29%	71%
Contra Costa	20%	80%
Marin	18%	82%
Napa	44%	56%
San Francisco		97%
San Mateo	32%	68%
Santa Clara	41%	59%
Solano	38%	62%
Sonoma	20%	80%
Regional Total	24%	76%

Data Access & Limitations

Staff is currently working with cities, counties, and HCD to improve and streamline data reporting and collection in order to increase the quality and scope of the data available for the region. These efforts are increasingly important given the emphasis on RHNA performance in Senate Bill 35, and as MTC considers using these datasets as the basis for distributing transportation funding based on housing performance.

While these datasets enable important analyses, their usefulness is limited by significant constraints. The information jurisdictions report to ABAG/MTC is closely tied to the information they are required to submit to HCD in their APR. However, in working with local jurisdictions to compile this information, staff has noted inconsistencies when comparing the APRs submitted to HCD and building permit data provided to us. In some cases, our efforts to evaluate the data we receive and reconcile these anomalies means the data we compile may be different than what is reported to HCD.

Sorting out these inconsistencies requires a significant investment of time and effort for jurisdiction and consolidated staff. In addition, due to a lack of specificity in the HCD reporting requirements, some jurisdictions do not report permit locations by a specific parcel number, which makes the process of geocoding more time consuming, expensive, and prone to error.

Second, there is currently no single, public, parcel-level data source that collects actual housing production by affordability level. HCD collects housing permit information by affordability level, but not actual production (not all permits result in construction). The California Department of Finance (DOF) collects housing production information, but not by affordability level and not at the parcel level. Public and private sources rely on data collection directly from jurisdictions and there is great variability in data definition, completeness, and availability.

To address these limitations, staff is currently working with HCD to provide more clarity about its requirements and improve its data collection and management systems and looking for opportunities to coordinate data collection among HCD, DOF, and ABAG/MTC. We are also working with local jurisdiction staff to identify ways to support them in responding to the requirements of Senate Bill 35 and increase the efficiency and accuracy of their data tracking and reporting efforts.

2017 Analysis of Bay Area Housing Policies and Programs

In February of 2017, staff surveyed all Bay Area cities and counties about local adoption of key housing policies and programs they are using to increase housing supply and affordability, preserve existing housing choices, and protect residents from displacement. Results from the survey, which updated information originally gathered in 2014, are now presented on the ABAG website. The Policy Directory features 26 local housing policies organized into three categories: Planning for Production, Funding Housing Affordability, or Stabilizing Neighborhoods. In addition to showing policy adoption throughout the region, the website includes details about different policy options, including links to a toolkit of best practices and model ordinances.

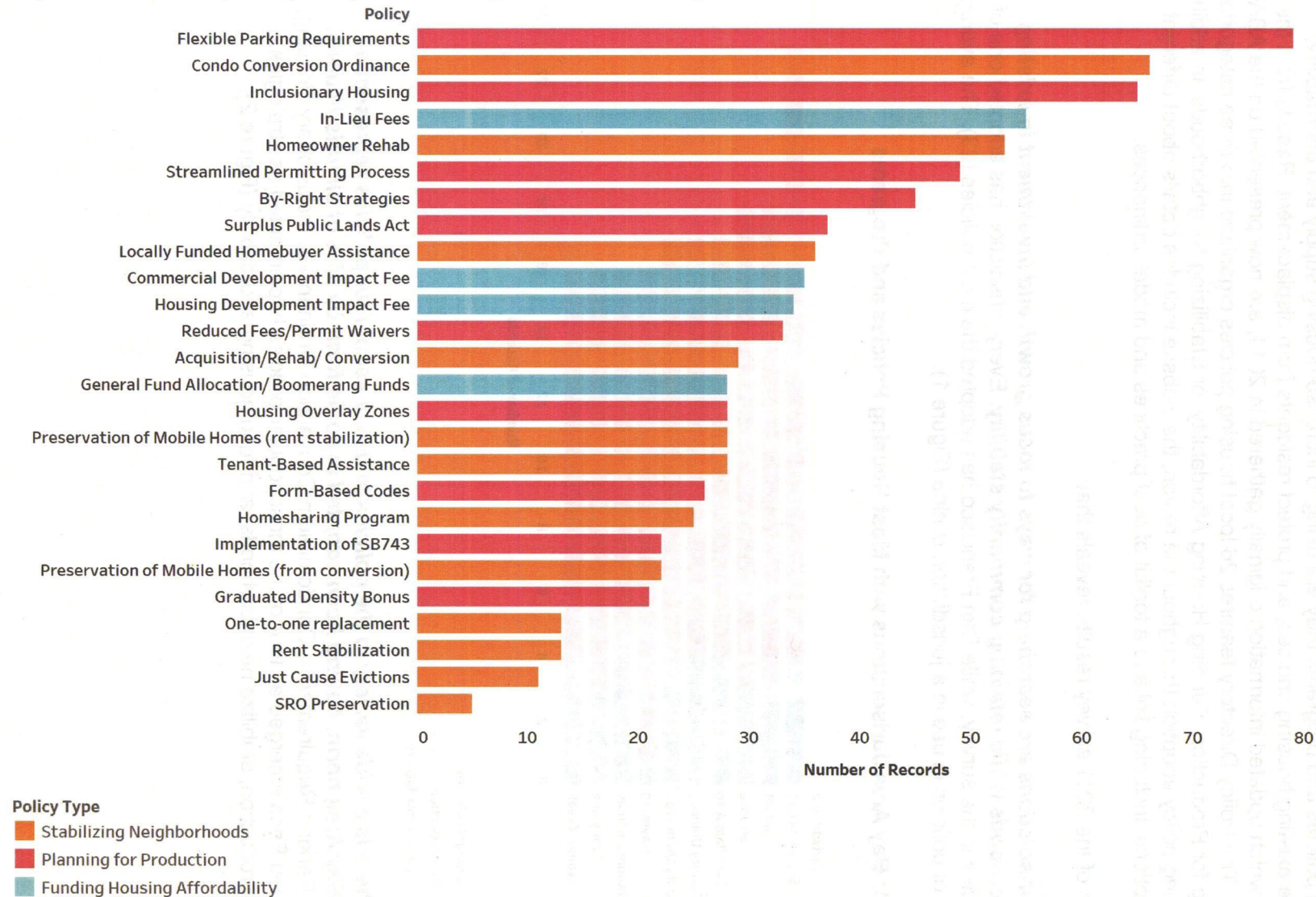Analysis of the 2017 survey results reveals that:

Many jurisdictions are searching for ways to focus growth and investment in existing neighborhoods while retaining community stability. Every jurisdiction has adopted one of the policies in the survey, while San Francisco has adopted the most policies (23). The average number of policies in use in a jurisdiction is nine (Figure 1).

Figure 1: Bay Area Jurisdictions with Most Housing Policies and Programs
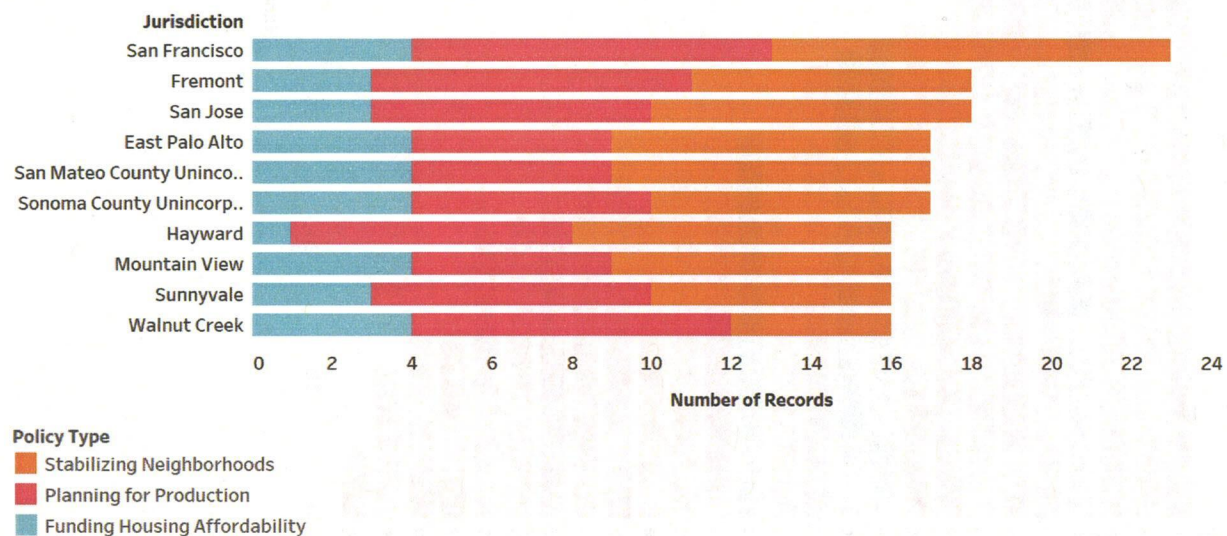
While there is a wide variety in the policies in use, a set of four policies represent a strong Bay Area norm, having been adopted in some form by 50% of all jurisdictions. Flexible Parking Requirements, Condominium Conversion Ordinances, Inclusionary Housing, and In-Lieu Fees emerged as four of the most popular policies implemented as strategies to plan for production, stabilize neighborhoods, and fund housing affordability (Figure 2).

1

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Figure 2: Most Frequently Adopted Housing Policies and Programs

Policy

Horizontal bar chart showing Number of Records (x-axis 0 to 80) by policy:

- Flexible Parking Requirements — ~79
- Condo Conversion Ordinance — ~65
- Inclusionary Housing — ~64
- In-Lieu Fees — ~55
- Homeowner Rehab — ~53
- Streamlined Permitting Process — ~49
- By-Right Strategies — ~45
- Surplus Public Lands Act — ~37
- Locally Funded Homebuyer Assistance — ~36
- Commercial Development Impact Fee — ~35
- Housing Development Impact Fee — ~34
- Reduced Fees/Permit Waivers — ~33
- Acquisition/Rehab/ Conversion — ~29
- General Fund Allocation/ Boomerang Funds — ~28
- Housing Overlay Zones — ~28
- Preservation of Mobile Homes (rent stabilization) — ~28
- Tenant-Based Assistance — ~28
- Form-Based Codes — ~26
- Homesharing Program — ~25
- Implementation of SB743 — ~22
- Preservation of Mobile Homes (from conversion) — ~22
- Graduated Density Bonus — ~21
- One-to-one replacement — ~13
- Rent Stabilization — ~13
- Just Cause Evictions — ~11
- SRO Preservation — ~5

Number of Records

Policy Type
- Stabilizing Neighborhoods
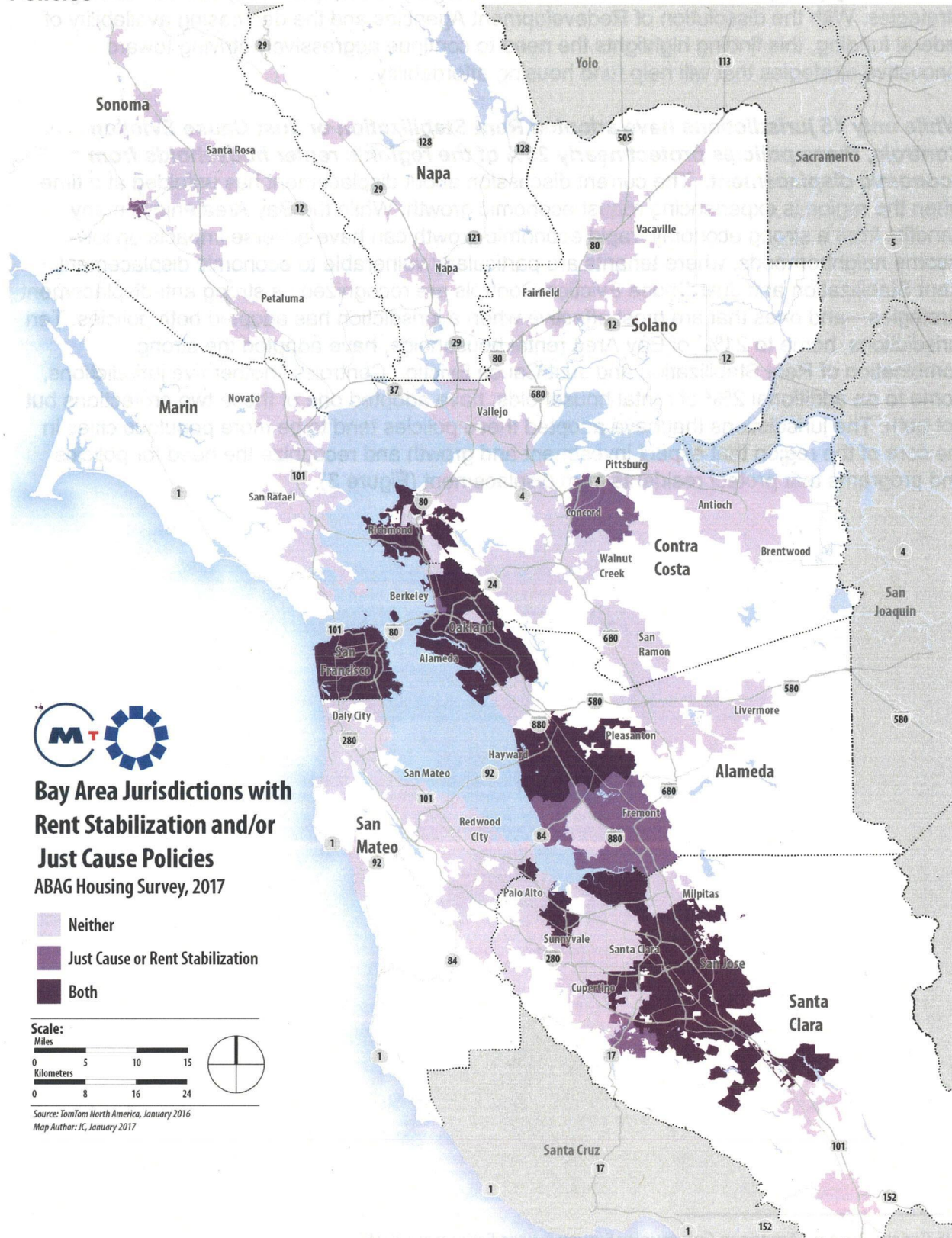- Planning for Production
- Funding Housing Affordability

The category with the least number of policies implemented is Funding Housing Affordability (17%). Policies that fall under this category relate specifically to local funding strategies. With the dissolution of Redevelopment Agencies and the decreasing availability of federal funding, this finding highlights the need to continue aggressively striving toward innovative strategies that will help fund housing affordability.

While only 15 jurisdictions have adopted Rent Stabilization or Just Cause Eviction Controls, these policies protect nearly 25% of the region's renter households from economic displacement. The current discussion about displacement has unfolded at a time when the region is experiencing robust economic growth. While the Bay Area enjoys many benefits from a strong economy, rapid economic growth can have adverse impacts on low-income neighborhoods, where tenants are particularly vulnerable to economic displacement. Rent Stabilization and Just Cause Eviction Controls are recognized as strong anti-displacement strategies—and ones that are most effective when a jurisdiction has adopted both policies. Ten jurisdictions, home to 21%[1] of Bay Area rental households, have adopted the strong combination of Rent Stabilization and Just Cause Eviction Controls. Another five jurisdictions, home to an additional 2%[2] of rental households, have adopted one of these two protections but not both. The jurisdictions that have adopted these policies tend to be more populous cities in the core of the region that expect investment and growth and recognize the need for policies and programs that protect residents from displacement (Figure 3).

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[1] US Census Bureau, American Community Survey 5-Year Estimates (2015)
[2] US Census Bureau, American Community Survey 5-Year Estimates (2015)

Figure 3: Bay Area Jurisdictions with Rent Stabilization and Just Cause for Eviction Policies

Bay Area Jurisdictions with Rent Stabilization and/or Just Cause Policies

ABAG Housing Survey, 2017

- Neither
- Just Cause or Rent Stabilization
- Both

Scale:
Miles
0   5   10   15
Kilometers
0   8   16   24

Source: TomTom North America, January 2016
Map Author: JC, January 2017

Because each jurisdiction is different and because the details of similar local ordinances differ across jurisdictions, measuring the specific positive contribution that particular policies and ordinance features make to local achievement of housing goals for production, equity, and sustainability would require more research. Nonetheless, one way to begin measuring the effectiveness of local policies and ordinances is to track these policies over time and compare with permit data and a jurisdiction's inventory of preserved units to identify trends.

Evaluating a jurisdiction's success in protecting residents from displacement is also a challenge for various reasons, however; there are local models that have begun collecting data in a way that will help assess the impact of specific policies. The City of Emeryville's Municipal Code Chapter 40, Residential Landlord and Tenant Relations, requires landlords to submit a notice of termination to both their tenant and the City. By systematically tracking evictions, the City of Emeryville is well poised to see trends that will help evaluate the effectiveness of their Just Cause Eviction Ordinance.

Ultimately, the sharing of best practices, resources, and model ordinances is one powerful tool for local jurisdictions to help implement suitable policies. Evaluating the impact specific policies have on different jurisdictions requires more research, like differentiating between jurisdiction typologies, as well as more data collection both regionally and locally, but will prove important to assess whether the Bay Area is moving toward its regional housing goals.

Metropolitan Transportation Commission

Legislation Details (With Text)

File #:	18-0159	**Version:** 1	**Name:**	
Type:	Report		**Status:**	Agenda Ready
File created:	2/15/2018		**In control:**	Bay Area Partnership Board
On agenda:	2/23/2018		**Final action:**	
Title:	Futures and Future Mobility (Matt Maloney)			

Staff is kicking off an effort called Futures to examine multiple sets of external conditions - new technologies, unexpected natural or manmade disasters, economic booms and busts, and political volatility - and think through policy and investment solutions that make sense in each distinct future. At the same time, the landscape around us is changing quickly as it relates to shared use mobility services and autonomous vehicles. We welcome a discussion of the related regional and local policy implications, near-term issues to be addressed by the Partnership, and how to best partner and align our collective goals to stay on top of these fast-moving changes.

Sponsors:

Indexes:

Code sections:

Attachments: 5_Future and Future Mobility.pdf

Date	Ver.	Action By	Action	Result

Subject:
Futures and Future Mobility (Matt Maloney)

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METROPOLITAN
TRANSPORTATION
COMMISSION

Memorandum

TO: Bay Area Partnership Board

DATE: February 16, 2018

FR: Executive Director

RE: *Futures* Overview

Since early 2010, MTC and ABAG staff have focused significant resources on the technical analysis, local engagement, and public outreach necessary to produce the integrated Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The culmination of these efforts – Plan Bay Area (2013) and Plan Bay Area 2040 (2017) – have moved toward a regional consensus on broadly-shared principles such as focused growth, investment in alternatives to single-occupant vehicles, and "fixing it first" before expanding the system – all with an aim of reducing per-capita greenhouse gas emissions and housing the region's population.

At the same time, statutory constraints on the RTP/SCS can make it challenging to explore the growing number of pressing issues facing Bay Area residents and policymakers. Political, economic, environmental, and technological uncertainties suggest a new approach that acknowledges risk factors rather than holding them constant across all scenarios evaluated (e.g., housing control totals, tax revenues, or the market share of autonomous vehicles). Peer agencies in Philadelphia, Chicago, and Atlanta have pioneered a "futures"-based planning approach to go beyond the statutorily-required process.

Topics to be Explored through *Futures*

External forces – such as new technologies, unexpected natural or manmade disasters, economic booms and busts, and political volatility – may fundamentally alter the region's trajectory and its policy responses through 2050. Integrated Planning Program staff have developed an 18-month "blue sky" planning effort (tentatively titled *Futures*) to tackle a suite of challenging questions that transcend the traditional RTP/SCS framework, including:

- What might different levels of autonomous vehicle adoption in coming years mean for our pipeline of traditional transportation investments – and should we change course?
- What strategies should we consider to better prepare our built infrastructure – including housing and job centers – for increasingly-frequent disasters?
- How should the Bay Area respond if economic output, population, and employment suddenly boom or bust – are certain projects more or less effective in that case?
- What actions can the Bay Area take to improve our resilience to national and international geopolitical and economic shifts?

Futures is not a visioning exercise – the intent would not be to choose a preferred scenario for advancement into the RTP/SCS. Instead, *Futures* would allow policymakers, planners, and the public to explore multiple sets of external conditions and think through policy and investment solutions that make sense in each distinct future. Ultimately, policies and projects that make sense across multiple futures – thus demonstrating their resilience to potential headwinds – would be considered top priorities for incorporation in the next RTP/SCS. That separate but closely related effort would kick off in mid-2019 at the conclusion of *Futures*, with a "preferred scenario" identified by early 2020 – a process that would be informed by the three *Futures* initiative components below.

Components of the *Futures* Initiative

1) ***Futures Planning*** – In lieu of traditional scenario planning where funding and growth are distributed based on fixed control totals and fixed future assumptions, *Futures* will create a handful of divergent futures where the Bay Area must respond in very different ways. As discussed above, the purpose of this work would be to identify strategies and investments that allow the Bay Area to move forward with high-performing strategies and investments that perform well regardless of what happens in the decades ahead. Key milestones include:

   - Selection of specific futures for analysis: June 2018
   - Identification of current policy gaps for each future: September 2018
   - Collaborative development of policy solutions for each future: Fall 2018
   - Report detailing "win-win" strategies across futures: May 2019

2) ***Project Evaluation*** – Expanding upon the project evaluation framework used in *Plan Bay Area* and *Plan Bay Area 2040*, major transportation investments will be evaluated across the various futures to better understand how they would perform with differing assumptions about autonomous vehicles, overall regional growth, gas prices, and other traditionally exogenous factors. Key milestones for this work include:

   - Finalization of project evaluation framework: July 2018
   - Release of draft project performance results: March 2019
   - Approval of final project performance results: June 2019

3) ***Policy Analyses*** – To address a limitation of past planning cycles where individual policies were not explored in depth outside of the scenarios framework, staff proposes to conduct roughly five to seven analyses of broad, topical focus areas. The primary objective of each analysis will be to identify high-impact policies related to that topic area that support the region's guiding principles. To be released at events across the nine-county region, topics will include the following:

   - Autonomous vehicles & future mobility: June 2018
   - Travel demand management & climate mitigation: September 2018
   - Regional growth strategies: December 2018
   - Future of jobs: March 2019
   - Regional governance: June 2019
   - Design & better buildings: September 2019

Planning for new mobility options, including autonomous vehicles, will be a critical part of each component shown above. The futures slated for analysis will each explore different levels of automation, including a collaborative process of prioritizing strategies to achieve the best possible outcomes. The project evaluation process will explore how transportation investments may be affected by new technologies in the years to come. Finally, the first major policy paper developed as part of *Futures* will focus on this specific issue to identify a suite of potential policy solutions on this topic area

Integrating Related Planning Processes into *Futures*
- **Housing:** Staff will work to incorporate consensus recommendations from the ongoing CASA – Committee to House the Bay Area – process, which seeks to increase housing production at all levels of affordability, preserve existing affordable housing, and protect vulnerable populations from housing instability and displacement. CASA's final report is slated for release in late 2018.
- **Resilience:** Sea level rise mapping from the Adapting to Rising Tides project, combined with adaptation strategies identified through case studies, will be used to develop appropriate adaptation strategies unique to each future. Earthquakes – such as potential earthquake scenarios explored through the HayWired project – and other natural disasters will also be integrated into each future to explore potential policy responses under varying circumstances.

Next Steps
In the coming months, staff will reach key milestones on several major deliverables currently underway:
- April: proposed guiding principles
- June: policy analysis #1 (autonomous vehicles) release; proposed futures for further analysis
- Fall: collaborative effort to identify policy solutions for each future

Staff looks forward to the board's input on the proposed *Futures* effort and how to best plan for autonomous vehicles and new mobility in the months and years ahead.

Steve Heminger

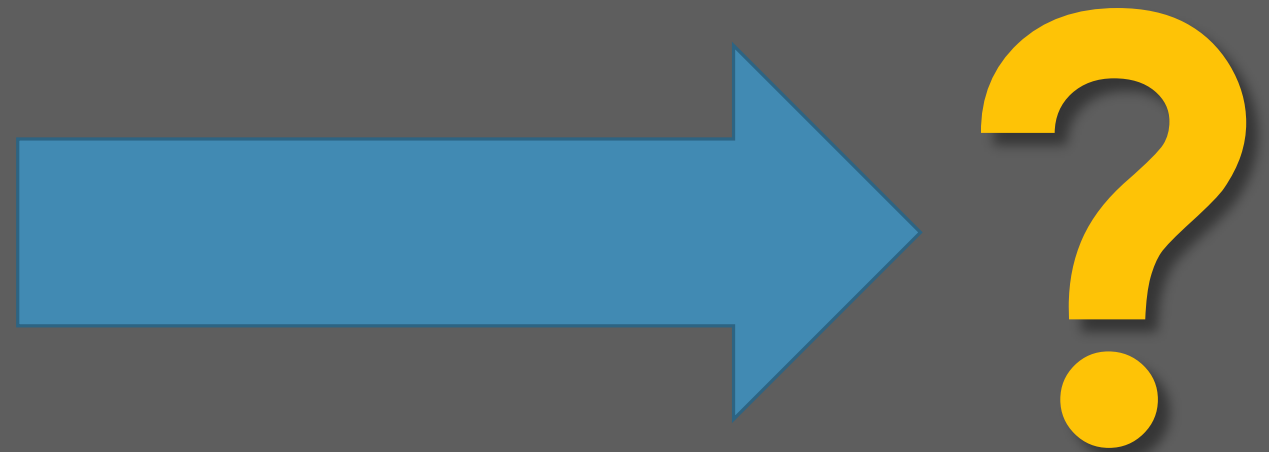**Attachment:**
- Presentation

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Futures

Partnership Board

February 23, 2018

We live in a time of incredible uncertainty. **And our regional plans need to acknowledge this reality.**

As we think about how to move forward, **history provides us with some inspiration on how to overcome the ever-changing circumstances.**

2

Our resilience to external forces – environmental, political, economic, technological – has been our greatest strength.

A blue-sky planning effort – tentatively known as *Futures* – will seek to explore a suite of challenging questions that transcend the traditional RTP/SCS framework.

Livermore Valley

What might autonomous vehicle adoption mean for our pipeline of transportation investments?

What strategies should we consider to prepare for increasingly-frequent disasters?

What changes need to be made to land use and transportation policies to tackle rising sea levels?

Image Source: Flickr

How should the region respond if economic output, population, and employment suddenly boom or bust?

What role should government play to ensure that everyone benefits in tomorrow's economy?

What actions can we take to improve our resilience to geopolitical and economic shifts?

Overview of Proposed Process

Complete by mid-2021

Plan Bay Area 2040

Futures

Next Plan (RTP/SCS)

Spring 2015 to Summer 2017

Winter 2018 to Summer 2019

High-performing strategies and projects from *Futures* – those that are resilient to uncertainties – **will be recommended for inclusion in the Preferred Scenario** for the Next Plan (RTP/SCS).

Overview of Proposed Process
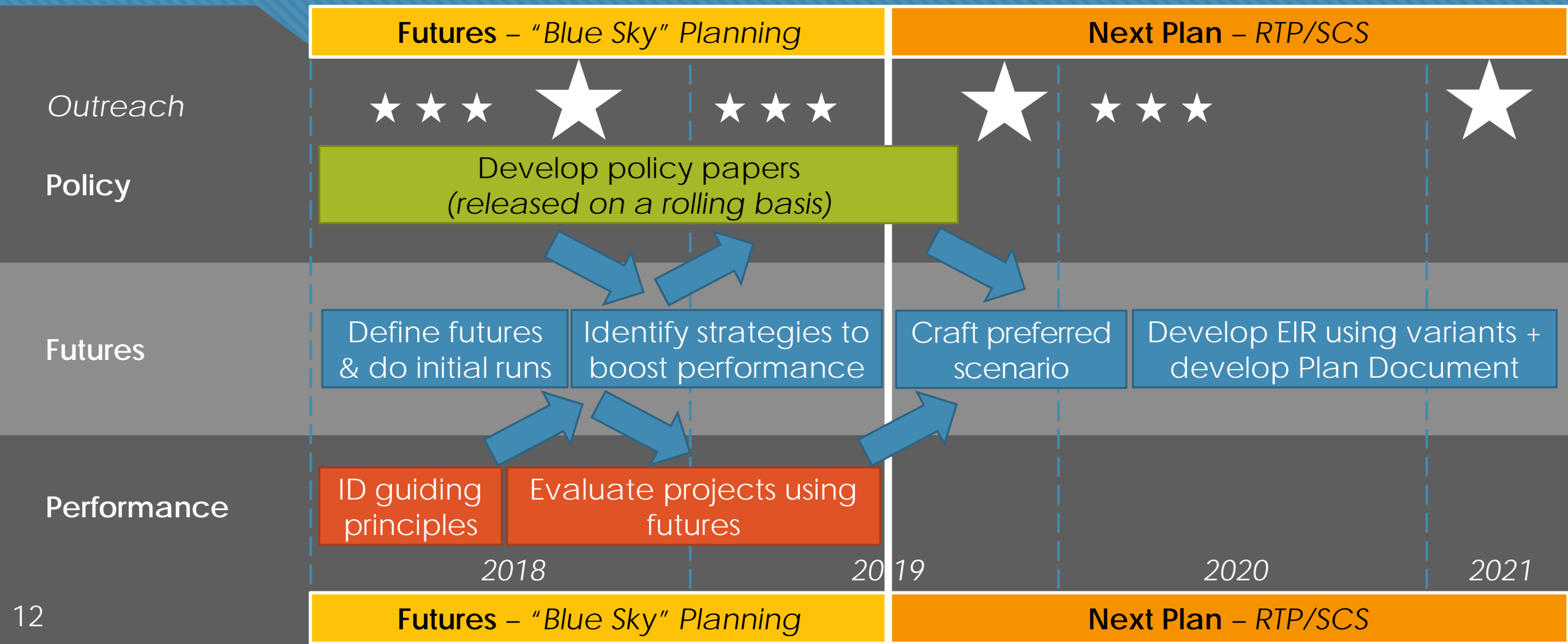
Proposed Policy Analyses (page 1 of 2)
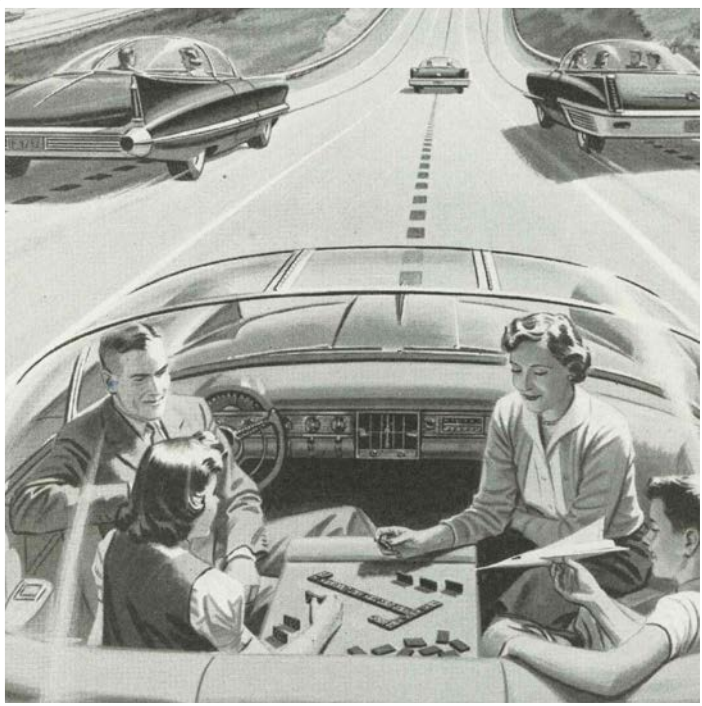
Topic 1:
Autonomous Vehicles
June 2018

Topic 2:
Climate Mitigation
September 2018

Topic 3:
Regional Growth Strategies
December 2018

Proposed Policy Analyses (page 2 of 2)

Topic 4:
Future of Jobs
March 2019
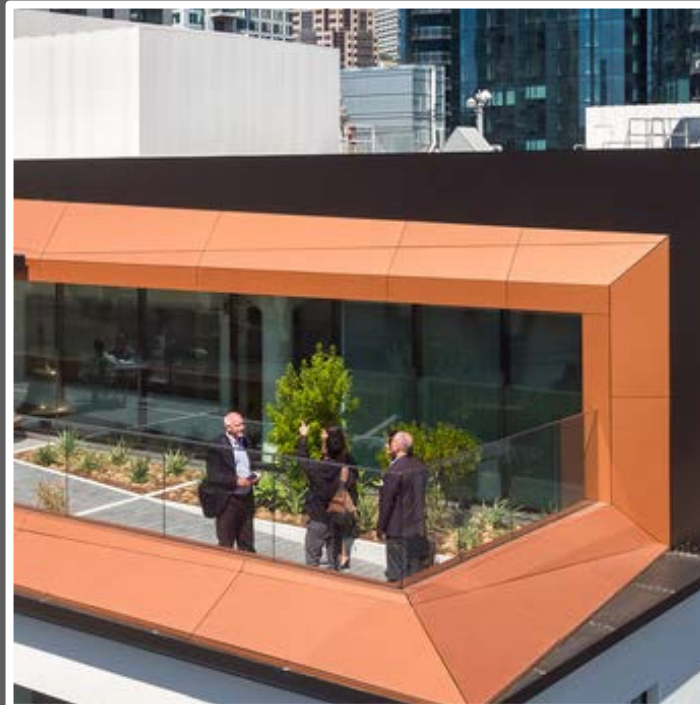
Topic 5:
Regional Governance
June 2019

Topic 6:
Better Buildings
September 2019

Autonomous Vehicles & Futures

- Varying futures for autonomous vehicles, including **technological capabilities, pricing, and associated market share**, will be incorporated into the *Futures* planning process.

- Benefits and adverse impacts associated with autonomous vehicles will be considered when **developing the AV policy paper, analyzing regional outcomes in futures, and assessing project-level impacts.**

- This work will build on the **"Big 4" MPO Future Mobility Research Program (FMRP)**, currently in progress.

Future Mobility Research Program:
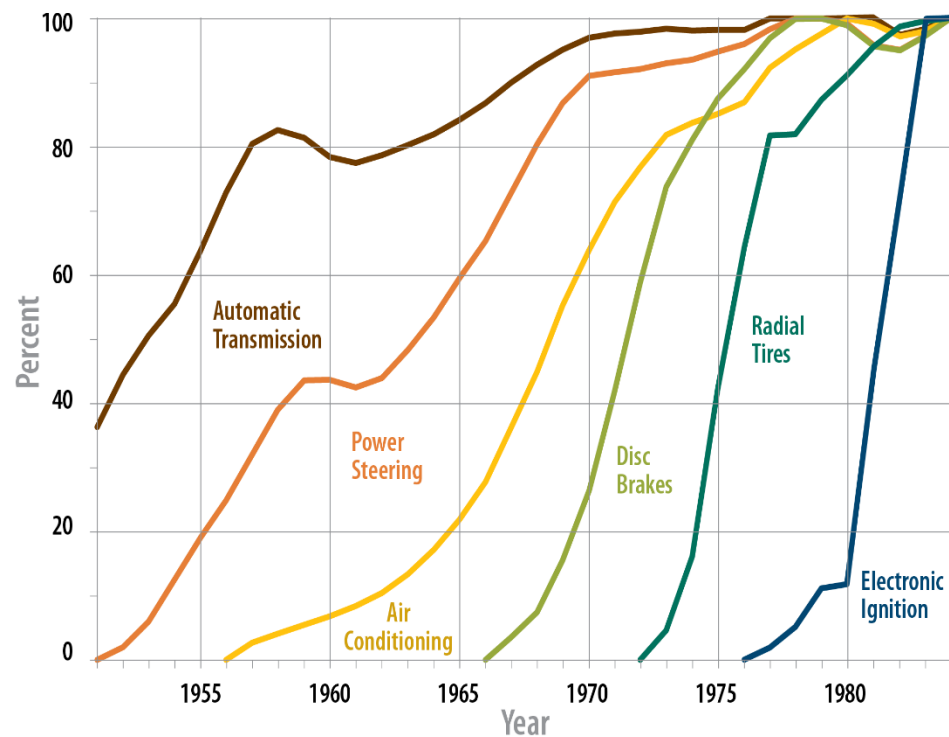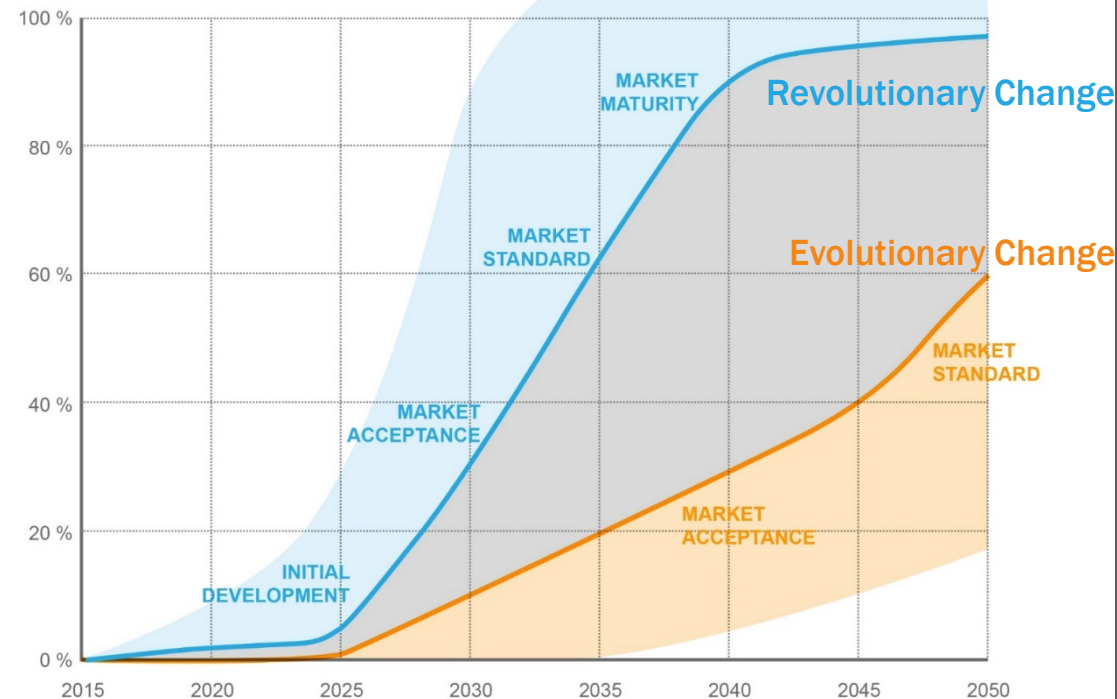# Forecasts for Autonomous Vehicles

Adoption of Past Automotive Technologies in the US Car Industry
(in % of output)

Adoption Forecasts of Fully Driverless Vehicle Technologies
(in % of output)

(Source: Jutila and Jutila, 1986.)

Forecasts for Autonomous Vehicles

- **Consensus:** induce trips, generate longer trips, increase capacity, and increase VMT/emissions (until EVs dominate the market).

- **Uncertainty:** tremendous uncertainty related to timing and overall market penetration of fully driverless vehicles, the adoption of shared vs owned, time sensitivity, per-mile operating costs, etc.

Two-Round Delphi Expert Survey for AVs

	Average Response	Standard Deviation
Available	2026	6 years
Relative Cost to Legacy Vehicle (%)	↓ 14%	25%
50% of Urban Traffic	2036	5 years
90% of Urban Traffic	2049	7 years
New Freeway *Capacity* (%)	↑ 44%	41%
New Urban Street *Capacity* (%)	↑ 23%	22%
Distance from Home to Work (%)	↑ 31%	27%
Time Spent in Vehicle (%)	↑ 31%	23%
Shared Vehicle Trips (%)	61%	24%
Empty Vehicle Circulation (%)	26%	18%
Congestion (worse 1 - 10 better)	6	2

Mount Tamalpais

Major Milestones – Futures & Future Mobility

- **April 2018:** proposed guiding principles
- **June 2018:** policy paper #1 on AVs; identify futures for analysis
- **Fall 2018:** collaboration on policy solutions for futures

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Image Source: Flickr - https://www.flickr.com/photos/thefatrobot/31885028900/