

# Meeting Agenda

## Bay Area Partnership Board

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Wednesday, June 1, 2016

2:30 PM

The Board Room – 1st Floor

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### 1. Call Meeting to Order / Introductions (Chair John Ristow)

### DISCUSSION / ACTION ITEMS

2. [15-1680](#) One Bay Area Grant Program 2 (OBAG 2) Update\*

Staff will provide an update on outstanding OBAG2 issues including proposals for the additional federal revenues and for housing/anti-displacement approaches.

**Presenter:** Anne Richman

**Attachments:** [2 OBAG 2 Update.pdf](#)  
[2 OBAG2 Presentation.pdf](#)

3. [15-1681](#) Plan Bay Area 2040: Scenarios, Performance Thresholds, and Investment Strategy Discussion\*

Staff will provide an update of Plan Bay Area 2040 scenarios, a summary of results from the Project Performance Assessment, and an overview of key issues informing the Plan's upcoming investment strategy.

**Presenter:** Ken Kirkey

**Attachments:** [3 PBA Scenarios Performance Thresholds Investment.pdf](#)  
[3 PBA Complete.pdf](#)

### INFORMATION ITEMS

4. [15-1682](#) FTA Finance Concept\*

Staff will provide information regarding concepts for financing against Federal Transit Administration formula funds, to support the region's transit capital program.

**Presenter:** Anne Richman

**Attachments:** [4 TCP Financing.pdf](#)

5.     [15-1683](#)           Regional Gas Tax Update\*

Staff seeks feedback regarding MTC's consideration of placing a 5-cent per gallon regional gas tax on the November 2016 ballot with the funds to be focused on local road repairs, including eligibility for bicycle and pedestrian improvements.

**Presenter:**           Rebecca Long

**Attachments:**       [5 Regional Gas Tax.pdf](#)

**6. Public Comments / Other Business**

**7. Adjourn / Next Meeting**

**The next meeting of the Bay Area Partnership Board will on a date and time to be duly noticed.**

\* Item is available to view on the MTC website.

\*\* To be provided as a handout at the meeting.

John Ristow, (408) 321-5713, email: [john.ristow@vta.org](mailto:john.ristow@vta.org) – Chair

Rick Ramacier, (925) 680-2050, email: [ramacier@ccta.net](mailto:ramacier@ccta.net) – Vice Chair

**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](http://mtc.ca.gov)) for public review for at least one year.

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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 510.817.5757 或 510.817.5769 TDD / TTY。我們要求您在三個工作日前告知，以滿足您的要求。

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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.

# Metropolitan Transportation Commission

101 Eighth Street,  
Joseph P. Bort MetroCenter  
Oakland, CA

## Legislation Details (With Text)

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<b>File #:</b>	15-1680	<b>Version:</b>	1	<b>Name:</b>	
<b>Type:</b>	Report	<b>Status:</b>		Informational	
<b>File created:</b>	5/27/2016	<b>In control:</b>		Bay Area Partnership Board	
<b>On agenda:</b>	6/1/2016	<b>Final action:</b>			
<b>Title:</b>	One Bay Area Grant Program 2 (OBAG 2) Update*				

Staff will provide an update on outstanding OBAG2 issues including proposals for the additional federal revenues and for housing/anti-displacement approaches.

**Sponsors:**

**Indexes:**

**Code sections:**

**Attachments:** [2\\_OBAG 2 Update.pdf](#)  
[2\\_OBAG2\\_Presentation.pdf](#)

Date	Ver.	Action By	Action	Result
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**Subject:**

One Bay Area Grant Program 2 (OBAG 2) Update\*

*Staff will provide an update on outstanding OBAG2 issues including proposals for the additional federal revenues and for housing/anti-displacement approaches.*

**Presenter:**

Anne Richman





**METROPOLITAN  
TRANSPORTATION  
COMMISSION**

Joseph P. Bort MetroCenter  
101 Eighth Street  
Oakland, CA 94607-4700  
TEL 510.817.5700  
TDD/TTY 510.817.5769  
FAX 510.817.5848  
E-MAIL [info@mtc.ca.gov](mailto:info@mtc.ca.gov)  
WEB [www.mtc.ca.gov](http://www.mtc.ca.gov)

**Agenda Item 2**

***Memorandum***

TO: Bay Area Partnership Board

DATE: May 27, 2016

FR: Anne Richman, Director, Programming and Allocations

RE: One Bay Area Grant Program 2 (OBAG 2) Update

As discussed at the Partnership Board meetings this spring, staff has been developing potential approaches for the Commission's consideration for revisions to the second cycle of the One Bay Area Grant program (OBAG 2). These revisions are related to the increased revenue estimates and a potential approach for affordable housing and anti-displacement. This memo provides an overview of staff's recommended approach for both of these items.

**Increased Revenues**

As a result of the Fixing America's Surface Transportation Act (FAST), signed into law in December 2015, the Bay Area's share of federal Surface Transportation Program (STP) and Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds is estimated to increase approximately \$72 million through the end of the OBAG 2 cycle (FY18 - FY22). This unexpected boost in revenues presents an opportunity to address critical challenges facing the Bay Area, including housing affordability and congestion/transit crowding on key transportation corridors.

Additional funds are also available for distribution from MTC's existing exchange account. These funds originally came to the region as STP/CMAQ allocations, but were later exchanged for non-Federal funds through agreements with specific project sponsors. MTC is proposing to use \$10 million from this exchange account to create a pilot program under OBAG 2. Additional details on the pilot program are provided below in the recommended approach.

**Housing Considerations**

In adopting the OBAG 2 project selection and programming policies (MTC Resolution No. 4202) in November 2015, the Commission directed staff to develop a recommendation for potential affordable housing and anti-displacement policies. Since that time, staff has been working with the Partnership working groups and other stakeholders to develop a recommended approach.

Discussions have centered around three implementation concepts: an incentive approach that would provide a bonus for local jurisdictions that produce housing to help address the region's housing crisis, a direct investment in affordable housing preservation, or a regulatory approach conditioning the receipt of OBAG 2 funds on the adoption of local housing policies.

## **Recommended Approach**

Considering feedback received to date from the Commission, Bay Area Partnership Board, working groups, and stakeholder comments, staff has developed the following recommendation for distributing the additional FAST revenues and exchange account funds, and an approach for affordable housing and anti-displacement for the OBAG 2 program.

### **1. Additional FAST Revenues**

#### ***Regional Program: Bay Bridge Corridor Capacity Project***

Consistent with the adopted OBAG 2 framework, staff recommends directing 55% of the increased FAST revenues (\$40 million) to near-term regional transportation priorities. For this unexpected revenue, however, staff recommends focusing specifically on congestion relief and transit crowding on the Bay Bridge Corridor.

The San Francisco-Oakland Bay Bridge Corridor is the single most congested corridor in the region by a considerable margin. In 2015, the eastbound approach was again the most congested corridor in the Bay Area and the westbound approach was the second most congested. In total, this bridge corridor endures nearly 27,000 vehicle-hours of daily delay and carries 270,000 vehicles across the bay. The daily corridor delays for other east-west bay crossings are significantly lower by comparison. Transbay peak transit services are also at capacity with BART, buses and ferries all experiencing crush loads.

Given that vehicle demand exceeds capacity on the Bay Bridge, we must move more people in fewer vehicles to make more efficient use of the bridge's core capacity. Currently, assuming vehicles have an average of four seats, 48 percent of those seats are empty – this is unused capacity. But if we fill 16,000 empty seats per hour, this would be the equivalent of 70 percent of the BART tube capacity. Implementation of near-term, cost-effective operational improvements that offer travel time savings, reliability and lower costs for carpooling and bus/ferry transit use will not only increase person throughput but also reduce congestion, incidents, and emissions in the bridge corridor. The proposed near-term strategies that can be implemented over the next few years are as follows:

- **Operational Strategies:** a) To provide direct bus/HOV access to the toll plaza, convert the shoulder to a Bus/HOV lane on the West Grand Ave. on-ramp; b) to facilitate carpooling and bus access in the eastbound direction, institute tolling and violation detection on Sterling Street on-ramp; c) to make carpooling more accessible and convenient, establish more formal casual carpool pick-up/drop-off points in San Francisco and along the I-80 corridor through Alameda, Contra Costa and Solano counties; and d) deploy integrated corridor mobility technologies that connect the bridge metering lights with other technology deployments along I-80, I-580 and I-880 corridors that feed into the toll plaza.
- **Transit Core Strategies:** a) To meet unmet demand, increase ferry and express bus frequencies and services levels in high demand, congested corridors; b) to improve express bus travel time reliability and speeds, deploy arterial technologies and transit signal priority on major arterials; and c) to facilitate greater ridesharing, provide more commuter parking facilities.

- **Shared Mobility Strategies:** a) to take advantage of new and growing shared mobility services, at no cost, identify ways to encourage and direct these services to operate within the bridge corridor and b) to boost vanpooling, provide easy ways for vanpool formation.

The \$40 million in OBAG 2 funds would leverage current congestion relief efforts and shore up transit funding for near-term capacity expansion projects within the Bay Bridge Corridor.

***Housing Production Incentive: “80K by 2020 Challenge”***

Staff recommends directing the remaining 45% of the additional FAST revenues (\$32 million) to local jurisdictions that produce low and moderate income housing. Staff proposes to distribute the funds through a challenge grant program for the local jurisdictions that produce the most housing units at the very low, low, and moderate income levels.

The proposed concept for this program is to set 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 2014-22. The target for the proposed challenge grant period is 80,000 low and moderate income units (35,000 very low, 22,000 low and 25,000 moderate units).

At the end of the production challenge cycle, MTC will distribute grant funds to the jurisdictions that contribute the most toward reaching the regional production target. To keep the grant size large enough to serve as an incentive for housing production, the grant program would be limited to no more than the top ten producers of affordable housing units, or fewer, if the 80,000 unit target is reached by less than ten cities. Staff will provide annual progress reports on production of affordable housing units.

Staff also recommends limiting the program to jurisdictions with adopted Priority Development Areas (PDAs), although affordable housing production could occur anywhere within the jurisdiction. The funds provided would be STP/CMAQ, and would need to be used only for federally eligible transportation purposes.

## **2. Housing Investment**

***Affordable Housing Pilot: Naturally Occurring Affordable Housing (NOAH)***

In addition to the \$72 million in FAST revenues, staff recommends directing \$10 million in existing exchange account funds to develop a revolving loan for the preservation of existing affordable housing. The Naturally Occurring Affordable Housing (NOAH) fund will complement current TOAH loan products for new construction by buying apartment buildings to create long-term affordability where displacement risk is high and to secure long-term affordability in currently subsidized units that are set to expire. Staff suggests the following conditions of approval for the NOAH investment:

- I. MTC’s investment in NOAH will be leveraged at least 5:1, creating an investment pool of \$50 million.
- II. NOAH investments will be made in Priority Development or Transit Priority Areas.

### **3. Base OBAG 2 Program Proposed Revisions**

#### ***Regional Priority Development Area (PDA) Planning: Program Revisions***

As adopted, the Regional PDA Planning program provides technical assistance and planning support to local jurisdictions through a grant program in order to achieve the land uses set forth in Plan Bay Area. Staff encourages jurisdictions facing the pressures of displacement and affordable housing impacts to apply for the use of these funds to tackle these issues; applications from jurisdictions facing these pressure will be awarded extra points during application scoring. In addition, staff recommends including a revision to the program to direct \$1.5 million from the Regional PDA planning funds to update Community Based Transportation Plans (CBTPs) in communities at risk of displacement.

#### **Additional Considerations**

At the request of stakeholders and interested parties, staff also considered requiring local adoption of affordable housing and anti-displacement policies as a requirement to receive OBAG 2 funding. While this regulatory approach could encourage some jurisdictions to adopt additional housing policies, the impacts appear to be misdirected, with burdens falling predominantly on smaller or more rural jurisdictions, rather than the cities facing the brunt of the housing affordability crisis. As a result, any impact from this requirement would be minimal in terms of addressing the issue at a region-wide level. Some jurisdictions facing the greatest pressures of displacement and affordability, San Francisco, Berkeley, San Jose, and Oakland for example, have already adopted numerous policies and protections, and would thus be unaffected by this requirements-based approach. Conversely, a disproportionate impact would likely be placed on smaller or more rural jurisdictions, such as Vacaville, Colma, and Lafayette.

#### **Recommended Approach - Summary**

Program	Amount	Fund Source	Additional Information
Bay Bridge Corridor Capacity Transportation Investment	\$40 million	FAST Revenues	Regional Priority Corridor: <ul style="list-style-type: none"> <li>• Bay Bridge Corridor Capacity Project</li> </ul>
Local Housing Production Incentive	\$32 million	FAST Revenues	80K by 2020 Challenge: <ul style="list-style-type: none"> <li>• Top producers (up to 10)</li> <li>• 2015-2020 (6 years)</li> <li>• 82,000 regional target</li> <li>• Funds must be used for STP/CMAQ eligible transportation purposes</li> </ul>
Affordable Housing Pilot Investment	\$10 million	Exchange Account	Naturally-Occurring Affordable Housing (NOAH): <ul style="list-style-type: none"> <li>• Pilot revolving fund for preservation of affordable housing</li> </ul>

Regional PDA Planning	\$20 million	Adopted OBAG 2	Revisions to adopted program: <ul style="list-style-type: none"> <li>• Technical assistance and planning support related to affordable housing/anti-displacement</li> <li>• Direct portion of program to Community Based Transportation Plans (CBTP) updates</li> </ul>
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## Timeline

Given that the additional FAST revenues and policy discussions related to anti-displacement strategies and affordable housing will affect the county call for projects, staff proposes to delay the schedule for project submittal. A revised county program schedule will be presented to the Commission this spring as part of the proposed OBAG 2 revisions.

2016
March - June
<b>Develop Draft Proposal/Options</b> <ul style="list-style-type: none"> <li>• Further discussion of FAST revenues, anti-displacement/affordable housing <ul style="list-style-type: none"> <li>◦ <b>Commission Workshop - April</b></li> <li>◦ Bay Area Partnership, advisory and working groups</li> <li>◦ Policy Advisory Council</li> </ul> </li> <li>• Develop and refine OBAG 2 proposal based on feedback</li> </ul>
July
<b>Adopt OBAG 2 Revisions &amp; Regional Housing Approach</b> <ul style="list-style-type: none"> <li>• Finalize proposed OBAG 2 program revisions <ul style="list-style-type: none"> <li>◦ Policy Advisory Council</li> <li>◦ Partnership advisory and working groups</li> </ul> </li> <li>• Present OBAG 2 program revisions for adoption <ul style="list-style-type: none"> <li>◦ <b>PAC, Commission</b></li> </ul> </li> </ul>

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# OBAG 2 Program Status

November 18, 2015

**OBAG 2 adopted**  
MTC Resolution No. 4202

- Placeholder for potential affordable housing policies
- County CMA process delayed accordingly

December 4, 2015

**FAST Act signed**  
New 5-year authorization

★ **\$72 million in additional program revenues**

July 2016

**OBAG 2 Revisions**  
(tentative)

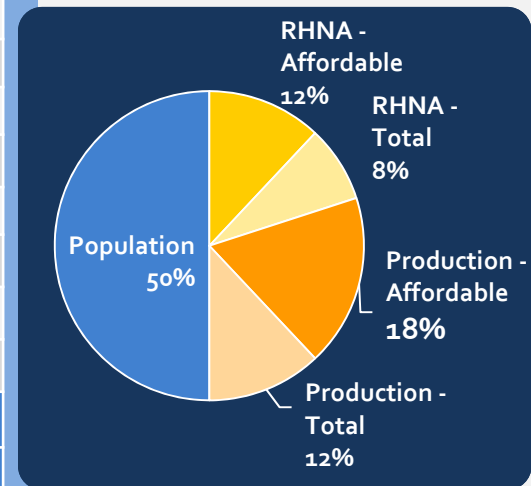
- Increased revenues
- Housing considerations
- Revised timeline for County CMA process

# OBAG 2 Overview

## Program Funding

	OBAG 1	OBAG 2*
Regional Planning Activities	\$8	\$10
Pavement Management Program	\$9	\$9
Regional PDA Planning	\$20	\$20
Climate Initiatives Program	\$22	\$22
Priority Conservation Area (PCA)	\$10	\$16
Regional Operations Programs	\$184	\$170
Transit Priorities Program	\$201	\$189
County CMA Program	\$372	\$354
<b>Regional Subtotal</b>	<b>\$454</b>	<b>\$436</b>
<b>County CMA Subtotal</b>	<b>\$372</b>	<b>\$354</b>
<b>Total OBAG Program</b>	<b>\$827</b>	<b>\$790</b>

## County Distribution



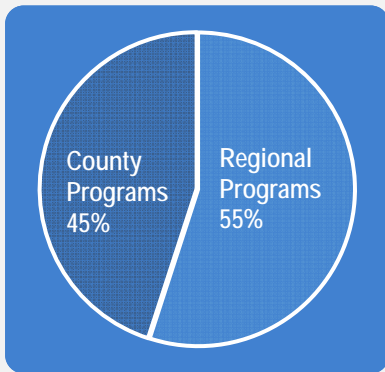
\* As adopted on November 18, 2015.

Millions \$, rounded

# Staff Recommendation:

## 1. FAST Revenues — \$72 million

### OBAG 2 Framework



### Regional Program Bay Bridge Forward

**Direct \$40 million to  
address capacity  
constraints**



### Housing Production Incentive "80K by 2020 Challenge"

**Direct \$32 million to  
reward housing**





## Staff Recommendation:

### 1. FAST Revenues — \$72 million (continued)

#### Regional Program

Bay Bridge Forward

Direct **\$40 million** to address capacity constraints

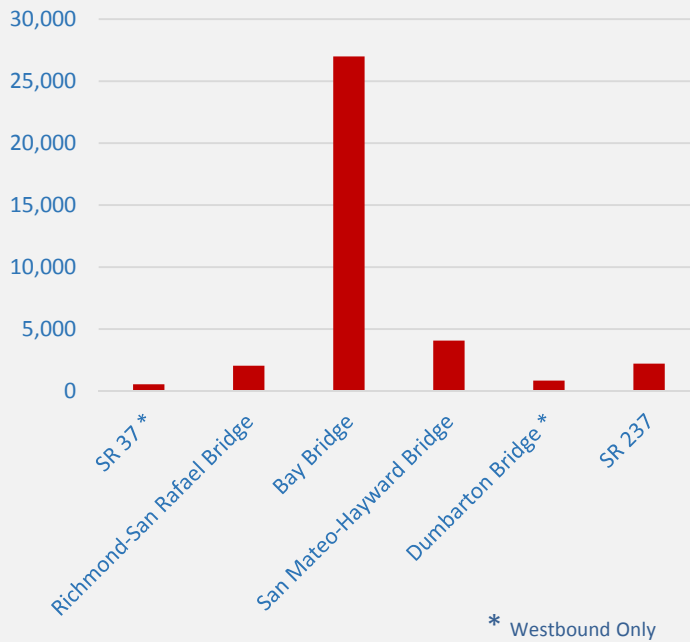


Photo: Noah Berger

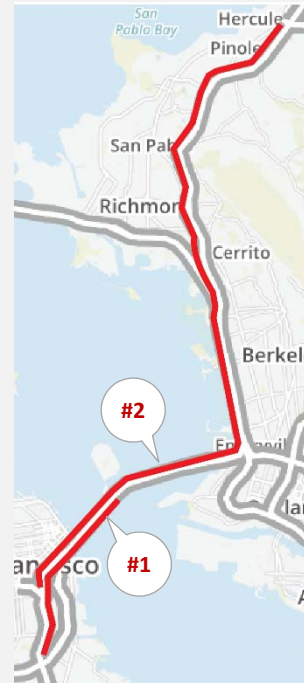
- ▶ Bridge is at maximum vehicle capacity in peak hours, but increasing vehicle occupancy can address growing demand
- ▶ Goal to increase *person* throughput [move more people in fewer cars]
  - **HOV improvements**
  - **Transit core improvements**
  - **Shared mobility services**
- ▶ Tie-in with Managed Lanes Implementation Plan, Bay Area Express Lanes Network, All Electronic Tolling Study, and Core Capacity Transit Study

# Bay Bridge Corridor: Most Congested East-West Bay Crossing

East-West Bay Crossings  
Daily Vehicle Hours of Delay



Bay Bridge tops 2015 Bay Area  
Congested Segments List

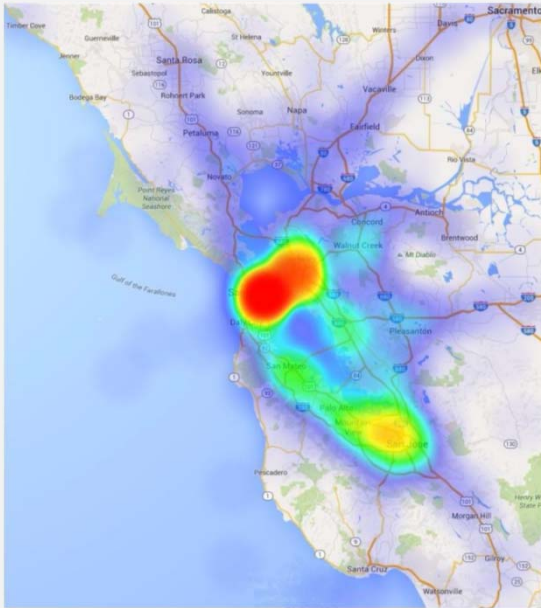


## Bay Bridge

- #1 congested segment: Eastbound I-80
- #2 congested segment: Westbound I-80
- **260,000** vehicles daily

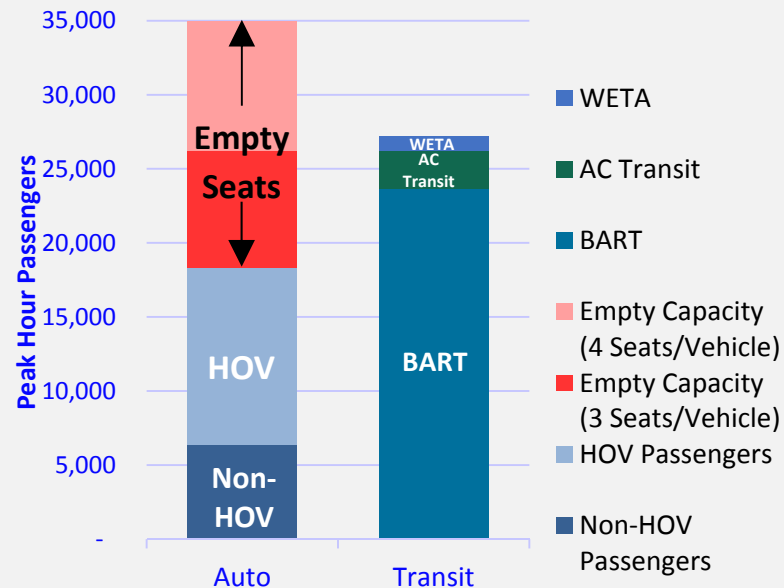
# Opportunity: Utilize Empty Seats

Where do Bay Area residents experience the most traffic frustration?



Source: Bay Area Council 2016 Poll

## Transbay WB Peak Hour

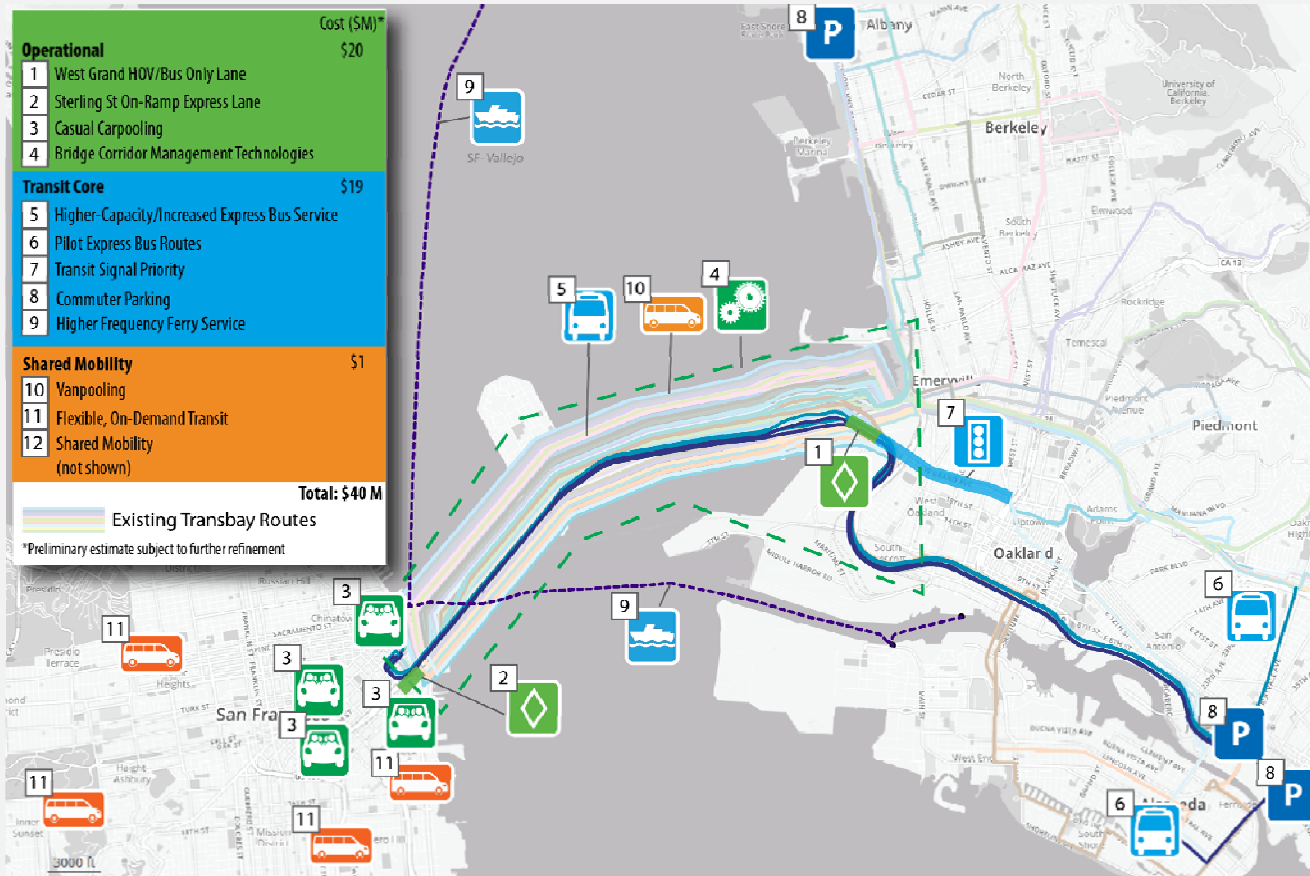


4 seats/vehicle → 48% seats are empty

16,000+ empty seats/hour = 70% of BART Tube Capacity

Source: BATA 2015, Caltrans 2014, MTC 2015

# Bay Bridge Forward: Near-Term, Low-Cost, & High-Impact Efficiency Strategies

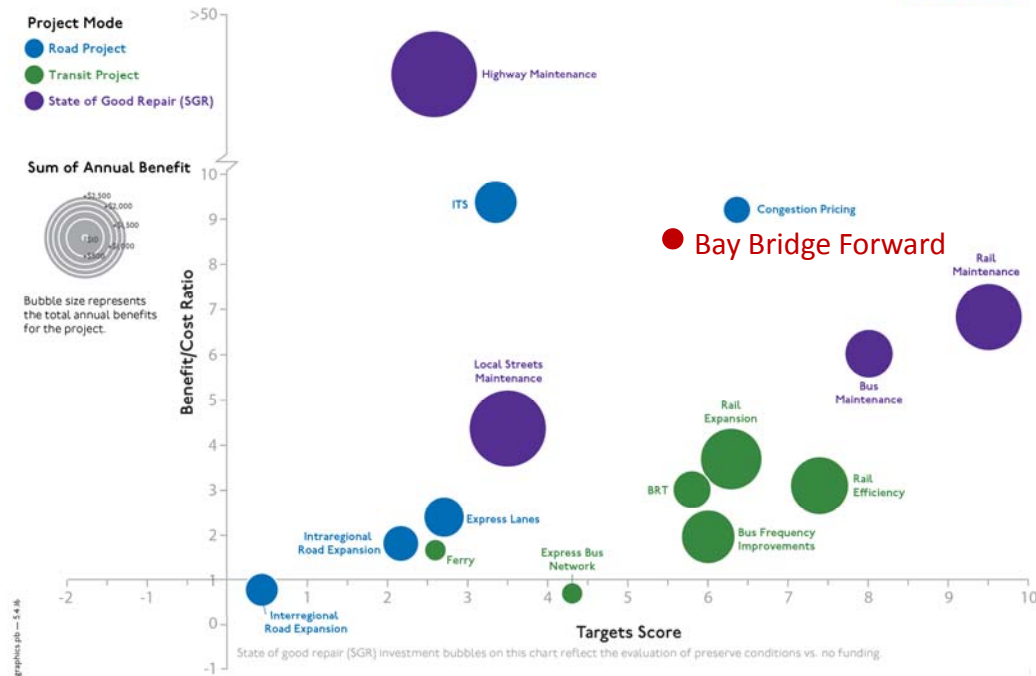


# Bay Bridge Forward: A High Performing Project

## Plan Bay Area 2040

Project Performance Assessment:  
Overall Results by Project Type

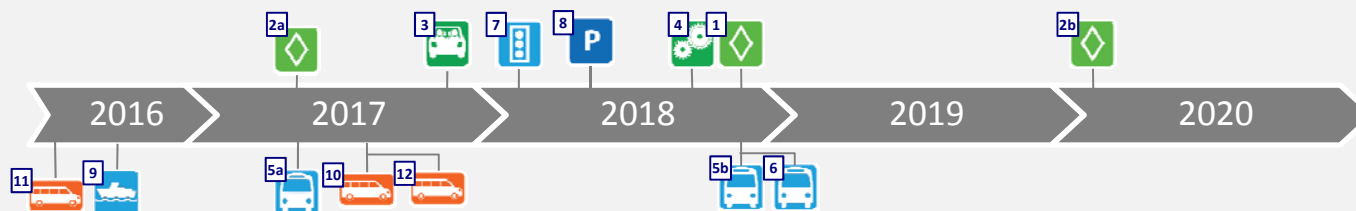
Plan  
BayArea  
2040



Note: benefit-cost ratio is estimated from similar project types evaluated in Plan Bay Area 2040

# Bay Bridge Forward:

## Detail & Timeline



#	Type	Near-Term Improvement
1		<b>West Grand HOV/Bus Only Lane</b> – Convert shoulder of on-ramp to Bus/HOV only lane
2		<b>Sterling St Express Lane</b> – a. Pilot HOV enforcement technology. b. Convert HOV to express lane
3		<b>Casual Carpool</b> – Establish casual carpooling pick-up locations at key locations in San Francisco and along I-80
4		<b>Integrated Bridge Corridor</b> – Integrate and optimize traffic management systems at all bridge approaches
5		<b>Higher Capacity/Increased Express Bus Service</b> – a. Operate additional fleets for Transbay bus and ferry (Alameda, Oakland and Vallejo ferries). b. Add double-decker buses for highest ridership, most impacted Transbay bus routes.
6		<b>Pilot Express Bus Routes</b> – Pilot new AC Transit Transbay routes to serve high demand inner East Bay markets
7		<b>Transit Signal Priority</b> – Add Transit Signal Priority to West Grand
8		<b>Commuter Parking</b> – Establish commuter parking in East Bay to encourage carpool and express bus ridership
9		<b>Higher Frequency Ferry Service</b> – Pilot increased Alameda, Oakland and Vallejo services
10		<b>Vanpooling</b> – Provide increased vanpooling opportunities in the Bay Bridge corridor
11		<b>Flexible On-Demand Transit</b> – Provide on-demand transit services between East Bay and San Francisco
12		<b>Shared Mobility</b> – Zero-dollar partnership with shared mobility providers to take advantage of improvements

## Staff Recommendation:

### 1. FAST Revenues — \$72 million (continued)

#### Housing Production Incentive

“80K by 2020 Challenge”

Direct **\$32 million** to reward housing production



Photo: Bridge Housing, Armstrong Place

- ▶ **Six year target** of low and moderate income housing production (2015 through 2020)
- ▶ **80,000 unit** target based on 2014-2022 RHNA
- ▶ **Grant funds awarded to jurisdictions** that contribute the most toward target (limited to top 10)
- ▶ Grants for eligible **transportation projects**
- ▶ Jurisdictions must have an adopted **Priority Development Area (PDA)** to be eligible

# Staff Recommendation:

## 2. Housing Investment

### Affordable Housing Pilot

Naturally Occurring Affordable Housing (NOAH)

Direct **\$10 million** for revolving loan for the preservation of existing affordable housing



- ▶ Complement current TOAH loan by buying apartment buildings to create **long-term affordability** where displacement risk is high & secure long-term affordability in currently subsidized units that are set to expire
- ▶ **\$10 million** in existing exchange account funds
- ▶ Investment **leveraged at least 5:1**, creating an investment pool of \$50 million
- ▶ Investments made in **PDAs or Transit Priority Areas**



## Staff Recommendation:

### 3. Base OBAG 2 Program Revisions

#### Regional PDA Planning

Program revisions related to planning for affordable housing and addressing anti-



- ▶ Current program includes technical assistance and planning support
- ▶ Revision to give additional weight to jurisdictions facing pressures of displacement and affordable housing
- ▶ Revision to direct \$1.5 million of the adopted PDA program (\$20 million total) to update Community Based Transportation Plans (CBTPs) in communities at-risk of displacement

## Staff Recommendation: Summary of Proposed Updates

### Recommended OBAG 2 Revisions

Millions \$, rounded

Program/Project	Amount	Fund Source	Additional Information
<b>Bay Bridge Corridor Capacity Project</b>	\$40	FAST	<ul style="list-style-type: none"> <li>Bay Bridge Corridor Capacity Project</li> </ul>
<b>Housing Production Incentive</b>	\$32	FAST	<ul style="list-style-type: none"> <li>80K by 2020 Challenge</li> <li>Top producers (up to 10)</li> <li>2015-2020 (6 years)</li> </ul>
<b>Affordable Housing Pilot Investment</b>	\$10	Exchange Acct.	<ul style="list-style-type: none"> <li>Naturally-Occurring Affordable Housing (NOAH)</li> <li>Pilot revolving fund for preservation of affordable housing</li> </ul>
<b>Regional PDA Planning</b>	\$20	OBAG 2, as adopted	<ul style="list-style-type: none"> <li>Technical assistance and planning support related to affordable housing/anti-displacement</li> <li>Direct portion of program to CBTP updates</li> </ul>

# Metropolitan Transportation Commission

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## Legislation Details (With Text)

<b>File #:</b>	15-1681	<b>Version:</b>	1	<b>Name:</b>	
<b>Type:</b>	Report	<b>Status:</b>		Informational	
<b>File created:</b>	5/27/2016	<b>In control:</b>		Bay Area Partnership Board	
<b>On agenda:</b>	6/1/2016	<b>Final action:</b>			
<b>Title:</b>	Plan Bay Area 2040: Scenarios, Performance Thresholds, and Investment Strategy Discussion*				
	Staff will provide an update of Plan Bay Area 2040 scenarios, a summary of results from the Project Performance Assessment, and an overview of key issues informing the Plan's upcoming investment strategy.				
<b>Sponsors:</b>					
<b>Indexes:</b>					
<b>Code sections:</b>					
<b>Attachments:</b>	<a href="#">3_PBA_Scenarios_Performance_Thresholds_Investment.pdf</a> <a href="#">3_PBA_Complete.pdf</a>				
<b>Date</b>	<b>Ver.</b>	<b>Action By</b>	<b>Action</b>		<b>Result</b>

### Subject:

Plan Bay Area 2040: Scenarios, Performance Thresholds, and Investment Strategy Discussion\*

*Staff will provide an update of Plan Bay Area 2040 scenarios, a summary of results from the Project Performance Assessment, and an overview of key issues informing the Plan's upcoming investment strategy.*

### Presenter:

Ken Kirkey



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TRANSPORTATION  
COMMISSION

Bay Area Metro Center  
375 Beale Street  
San Francisco, CA 94105  
TEL 415.778.6700  
WEB [www.mtc.ca.gov](http://www.mtc.ca.gov)

## Memorandum

TO: Bay Area Partnership Board

DATE: May 27, 2016

FR: Ken Kirkey, Director, Planning

RE: Plan Bay Area 2040: Scenarios, Performance Thresholds, and Investment Strategy Discussion

### Background

Plan Bay Area (PBA) 2040 has entered a critical phase in its development. MTC and ABAG have developed and evaluated three alternative land use and transportation scenarios illustrating the effects that different housing, land use and transportation strategies have on adopted goals and performance targets. MTC staff has also released final project performance results for major uncommitted projects and state of good repair investments. Lastly, staff has begun development of the Plan's investment strategy, which will apportion available regional discretionary revenues across operating and maintenance needs, system enhancements, and major projects.

### Alternative Scenarios Descriptions

The three scenarios describe different alternatives for how expected growth in population, jobs and housing units might be distributed, and the types of transportation investments needed to support these growth patterns. While the scenarios vary in terms of the intensity of development patterns and transportation investments, they maintain the same regional forecasts for jobs, population, households and transportation revenues. This evaluation will inform the development of the region's "preferred scenario," which will incorporate some of the best aspects of the three scenarios and form the framework for PBA 2040. Attachment A provides more background on the scenario evaluation.

### Project Performance Results and Thresholds

All major uncommitted investments, including projects that expand transit and road facilities, improve road or transit efficiency, and state of good repair investments, are subject to performance assessment per MTC Resolution No. 4182 and prioritization for the investment strategy of PBA 2040. The MTC Commission has adopted guidelines for applying the results. Staff has notified CMAs and sponsors of these guidelines and of the opportunity to submit a compelling case if project sponsors seek to include the "low performing" projects in the preferred transportation investment strategy. Attachment B provides more detail on the project performance results and thresholds.

### **Investment Strategy**

PBA 2040 forecasts \$298 billion of federal, state, regional and local transportation revenues over the 24-year period. Of this amount, approximately \$49 billion is assumed to be discretionary. Over the planning horizon, the region will also require significant investment to operate and maintain the existing system. Staff estimates that \$241 billion is required to achieve a state of good repair and \$217 billion is required to maintain existing conditions for transit operating, transit capital maintenance, regional and local bridges, state highways, and local streets and roads. Over the next several months, staff will be working to reconcile state of good repair needs with system enhancement and major project priorities through the development of the Plan's investment strategy. MTC staff will work closely with the CMAs and operators on the investment strategy, which will be presented concurrently with the Plan's preferred scenario in September 2016.

### **Next Steps**

MTC and ABAG are holding a series of public workshops through mid-June to discuss tradeoffs and gauge support among the land use scenarios and supportive transportation programs and projects. Input received will help us develop the region's draft preferred scenario (land use distribution and transportation investment strategy) for adoption by MTC and ABAG in September 2016. The draft preferred scenario will be subject to CEQA environmental review and other analyses throughout the remainder of 2016. PBA 2040 is slated for final adoption in summer 2017.

Attachments:      Presentation  
Attachment A:      Plan Bay Area 2040: Scenario Evaluation  
Attachment B:      Plan Bay Area 2040 Project Performance Assessment:  
                            Final Performance Results and Guidelines for Applying Results



# The Bay Area Partnership

Ken Kirkey, Planning Director, MTC  
June 1, 2016



METROPOLITAN  
TRANSPORTATION  
COMMISSION

# 3 SCENARIOS



**Main Streets**



**Connected  
Neighborhoods**



**Big Cities**

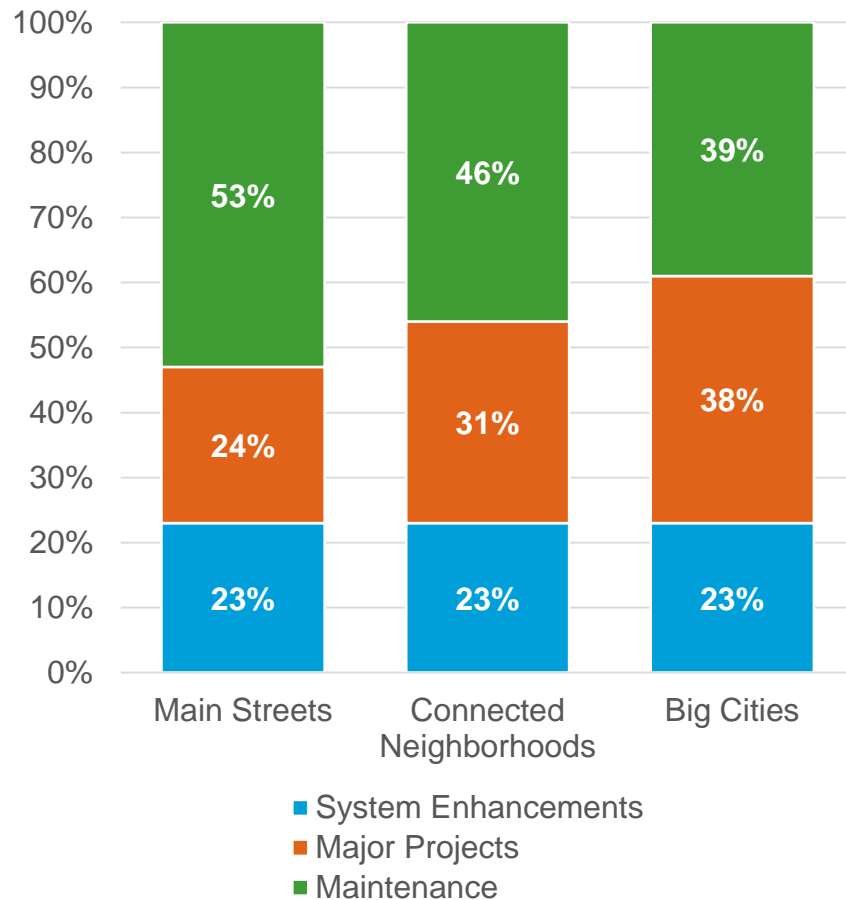
Share of Total Household  
Growth, 2040



- Main Streets- over a third of housing growth in inland, coastal, delta areas. Places most growth in high VMT parts of region, relative to other scenarios
- Big Cities- places most growth in big 3 cities and neighbors
- Connected Neighborhoods- places most growth in PDAs compared to other scenarios.

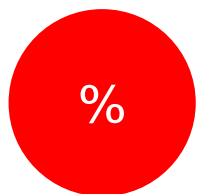


## Share of Discretionary Investments

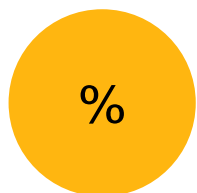


- Main Streets- over half the investment on state of good repair. More limited investment on major projects, especially highway capacity and express lanes
- Big Cities- makes largest investment in major capital projects, especially core capacity transit expansion
- Connected Neighborhoods- balanced focus on transit and highway efficiency improvements and state of good repair

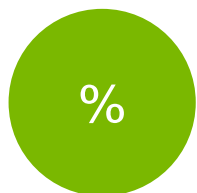
Symbols used in summary tables shown below:



*performance moving in wrong direction from target*








*performance moving in right direction, but falls short of target achievement*








*target achieved*

# TARGETS - SUMMARY




Goal	TARGET		No Project	Scenario 1	Scenario 2	Scenario 3
 Climate Projection	1 Reduce per-capita CO <sub>2</sub> emissions*	-15%	-3%	-15%	-18%	-20%
 Adequate Housing	2 House the region's population	100%	100%	100%	100%	100%
 Healthy and Safe Communities	3 Reduce adverse health impacts	-10%	-0%	-0%	-1%	-1%
 Open Space and Agricultural Preservation	4 Direct development within urban footprint	100%	71%	77%	100%	100%
 Equitable Access	5 Decrease H+T share for lower-income households	-10%	+15%	+13%	+13%	+13%

\* = includes Climate Initiatives in all three scenarios (-11.2% per-capita GHG reduction)

# TARGETS - SUMMARY

Goal	TARGET		No Project	Scenario 1	Scenario 2	Scenario 3
 Equitable Access	<b>6</b> Increase share of affordable housing	+15%	-0%	-0%	+1%	+0%
 Equitable Access	<b>7</b> Do not increase share of households at risk of displacement	+0%	+20%	+9%	+8%	+15%
 Economic Vitality	<b>8</b> Increase share of jobs accessible in congested conditions	+20%	-3%	-1%	-1%	-1%
 Economic Vitality	<b>9</b> Increase jobs in middle-wage industries	+38%	+43%	+43%	+43%	+43%
 Economic Vitality	<b>10</b> Reduce per-capita delay on freight network	-20%	+27%	-24%	-21%	-38%

# TARGETS - SUMMARY

Goal	TARGET	No Project	Scenario 1	Scenario 2	Scenario 3
 Transportation System Effectiveness	<b>11</b> Increase non-auto mode share +10%	+1%	+2%	+3%	+3%
 Transportation System Effectiveness	<b>12</b> Reduce vehicle O&M costs due to pavement conditions -100%	+57%	-65%	-7%	+20%
 Transportation System Effectiveness	<b>13</b> Reduce per-rider transit delay due to aged infrastructure -100%	-56%	-76%	-77%	-83%

- All three scenarios achieve the greenhouse gas target
- The public health target remains out of reach in all scenarios
- Strict urban growth boundaries are effective to focus growth within existing urban footprint
- Significant equity challenges exist across all three scenarios
- Goods movement will benefit from regional investment and smart land use decisions
- Increasing funding to “fix it first” leads to smoother streets and more reliable transit

## Potential approaches to achieve targets:

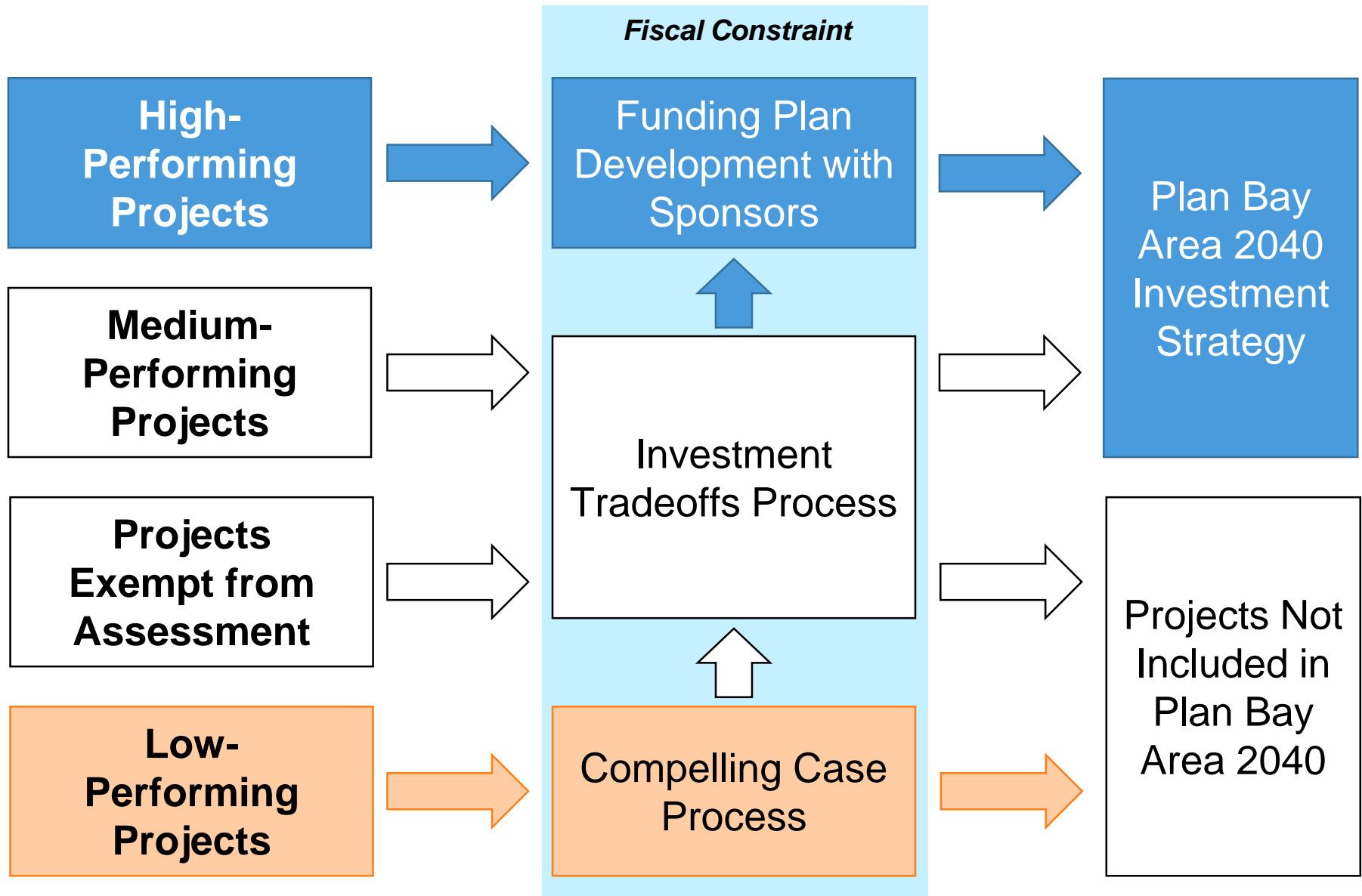
- Health: much more aggressive bike/ped investments to increase physical activity; wide-scale deployment of autonomous vehicles to reduce crashes (off-model/safety benefits)
- Equity: focus growth in communities with minimal lower-income population today; significant increase of housing subsidies (rental subsidies; additional deed-restricted unit production); understand and test the impacts of additional anti-displacement policies

## Potential approaches to achieve targets:

- Access to Jobs/Non-Auto Mode Share: transformative transportation investments (complete regional bus/carpool lane network; high-speed transit expansion across the region); much more aggressive bike/ped investments (off-model); and comprehensive housing and job growth in job centers
- State of Good Repair: greater funding for local streets and roads to bring all streets to at least fair conditions; greater funding for transit assets to replace assets besides vehicles and guideways



# DEVELOPING A PREFERRED SCENARIO



# PROJECT PERFORMANCE ASSESSMENT

Plan  
Bay Area  
2040

**High** benefit-cost ratio and **medium** targets score

- Plan Bay Area:  $B/C \geq 10$  and  $TS \geq 2$
- **Plan Bay Area 2040:  $B/C \geq 7$  and  $TS \geq 3$**



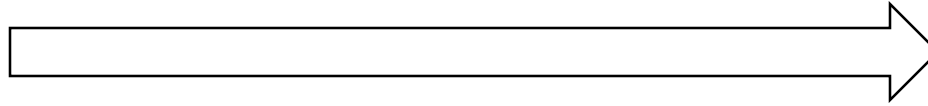
**Medium** benefit-cost ratio and **high** targets score

- Plan Bay Area:  $B/C \geq 5$  and  $TS \geq 6$
- **Plan Bay Area 2040:  $B/C \geq 3$  and  $TS \geq 7$**



**High-  
Performing  
Project**

All other projects



**Medium-  
Performing  
Project**

**Low** benefit-cost ratio or **low** targets score

- Plan Bay Area:  $B/C < 1$  or  $TS \leq -1$
- **Plan Bay Area 2040:  $B/C < 1$  or  $TS < 0$**



**Low-  
Performing  
Project**

PLAN BAY AREA 2040  
PROJECTS BREAKDOWN

**10**  
high-performers

**41**  
medium-performers

**18**  
low-performers

- 1 Rail Maintenance
- 2 Bus Maintenance
- 3 Columbus Day Initiative
- 4 Downtown San Francisco Congestion Pricing
- 5 Treasure Island Congestion Pricing
- 6 BART to Silicon Valley: Phase 2
- 7 Caltrain Modernization + Downtown Extension
- 8 BART Metro Program
- 9 San Pablo BRT
- 10 Geary BRT
- 11 El Camino BRT



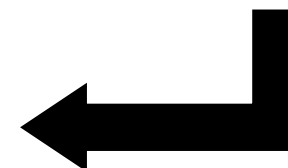
PLAN BAY AREA 2040  
PROJECTS BREAKDOWN

**10**  
high-performers

**41**  
medium-performers

**18**  
low-performers

## Compelling Case Framework

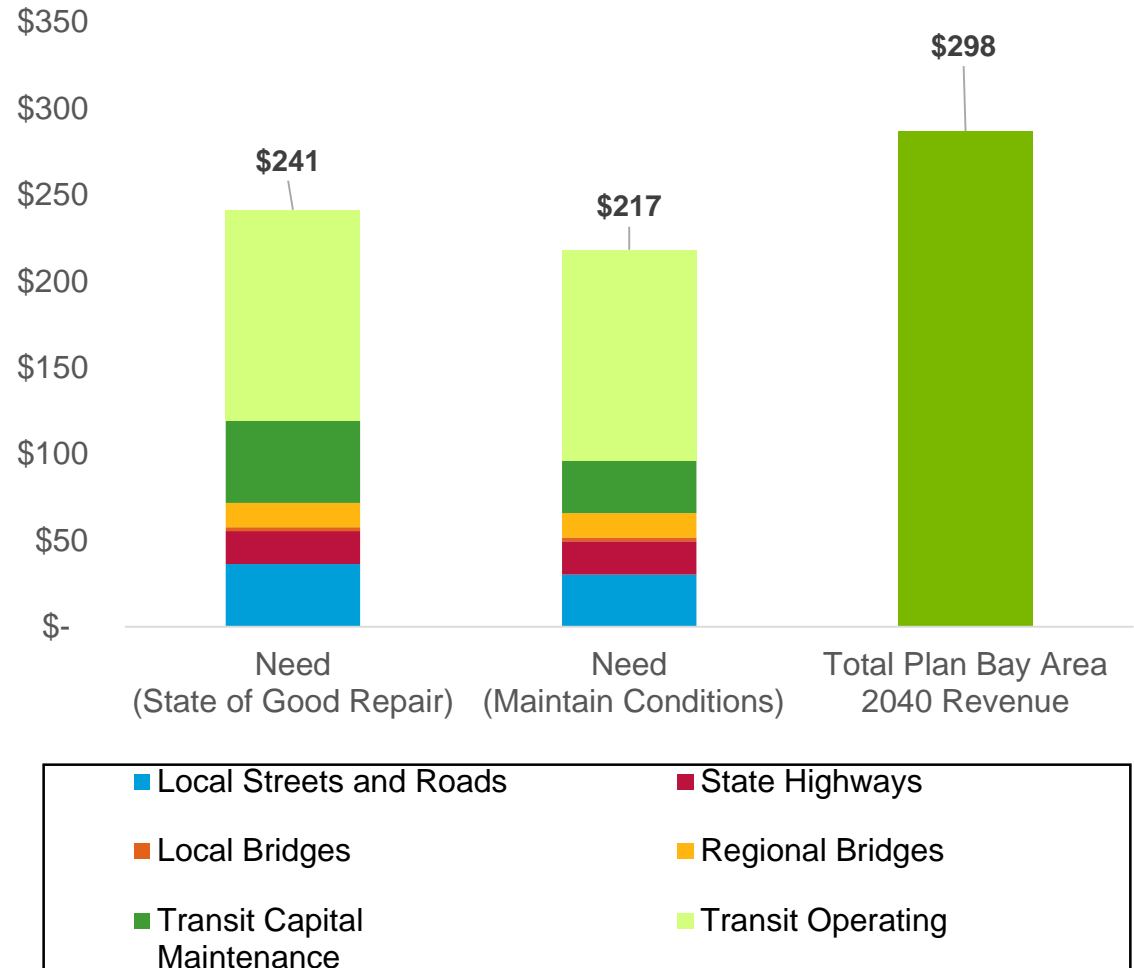


CATEGORY 1	CATEGORY 2
Benefits Not Captured by the Travel Model	Federal Requirements
<ul style="list-style-type: none"> <li>a) interregional or recreational corridor</li> <li>b) provides significant goods movement benefits</li> <li>c) project benefits accrue from reductions in weaving, transit vehicle crowding, or other travel behaviors not well represented in the travel model</li> <li>d) enhances system performance based on complementary new funded investments</li> </ul>	<ul style="list-style-type: none"> <li>a) cost-effective means of reducing CO<sub>2</sub>, PM, or ozone precursor emissions</li> <li>b) improves transportation mobility/reduces air toxics and PM emissions in communities of concern</li> </ul>

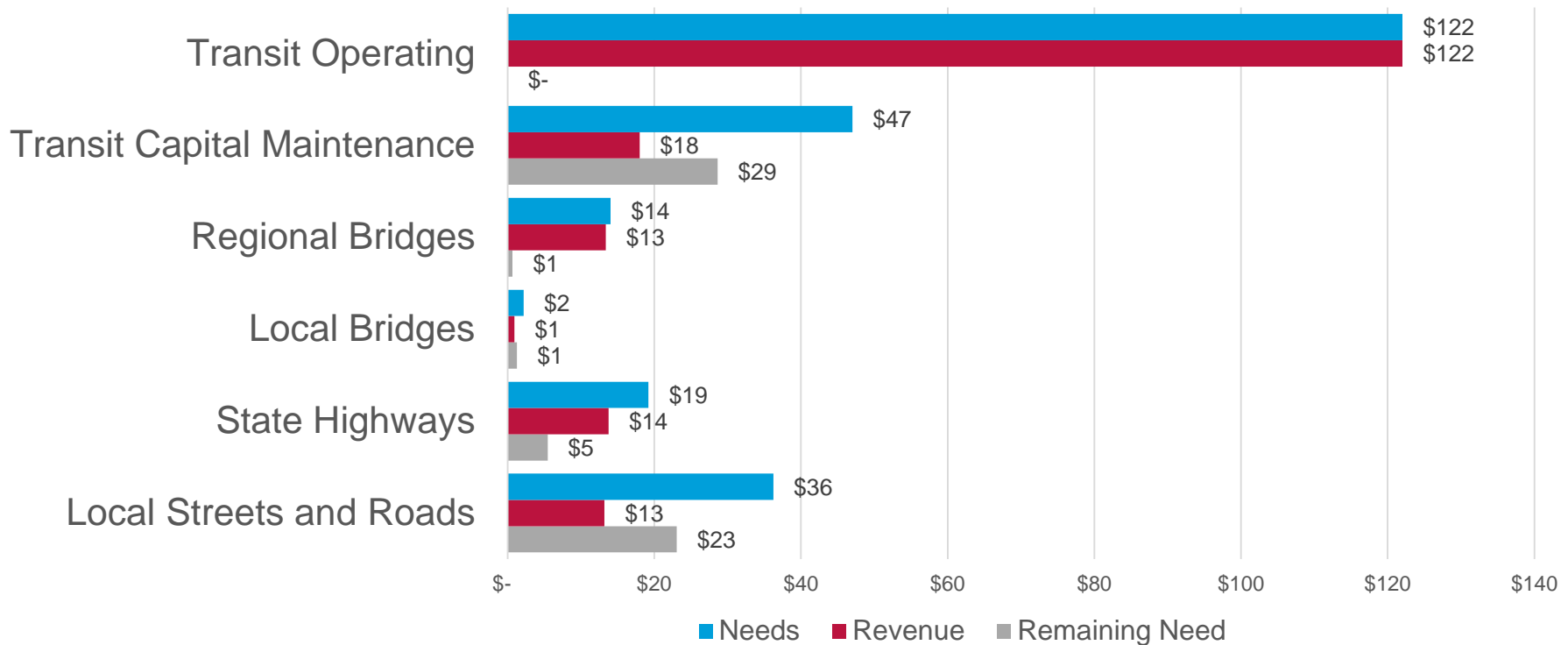
# REGIONAL NEEDS SUMMARY

- State of Good Repair Need = \$241 Billion
- Maintain Existing Conditions Need = \$217 Billion
- Total Draft Revenue Forecast for Plan Bay Area 2040 = \$298 Billion
- Approximately 16% (~\$49 billion) of Plan revenue is expected to be “discretionary”

Draft Plan Bay Area 2040 Operations and Maintenance Needs Financial Envelope (In Billions)



## Plan Bay Area 2040 24-Year Transit Operating & State of Good Repair Capital Maintenance Needs (In Billions)



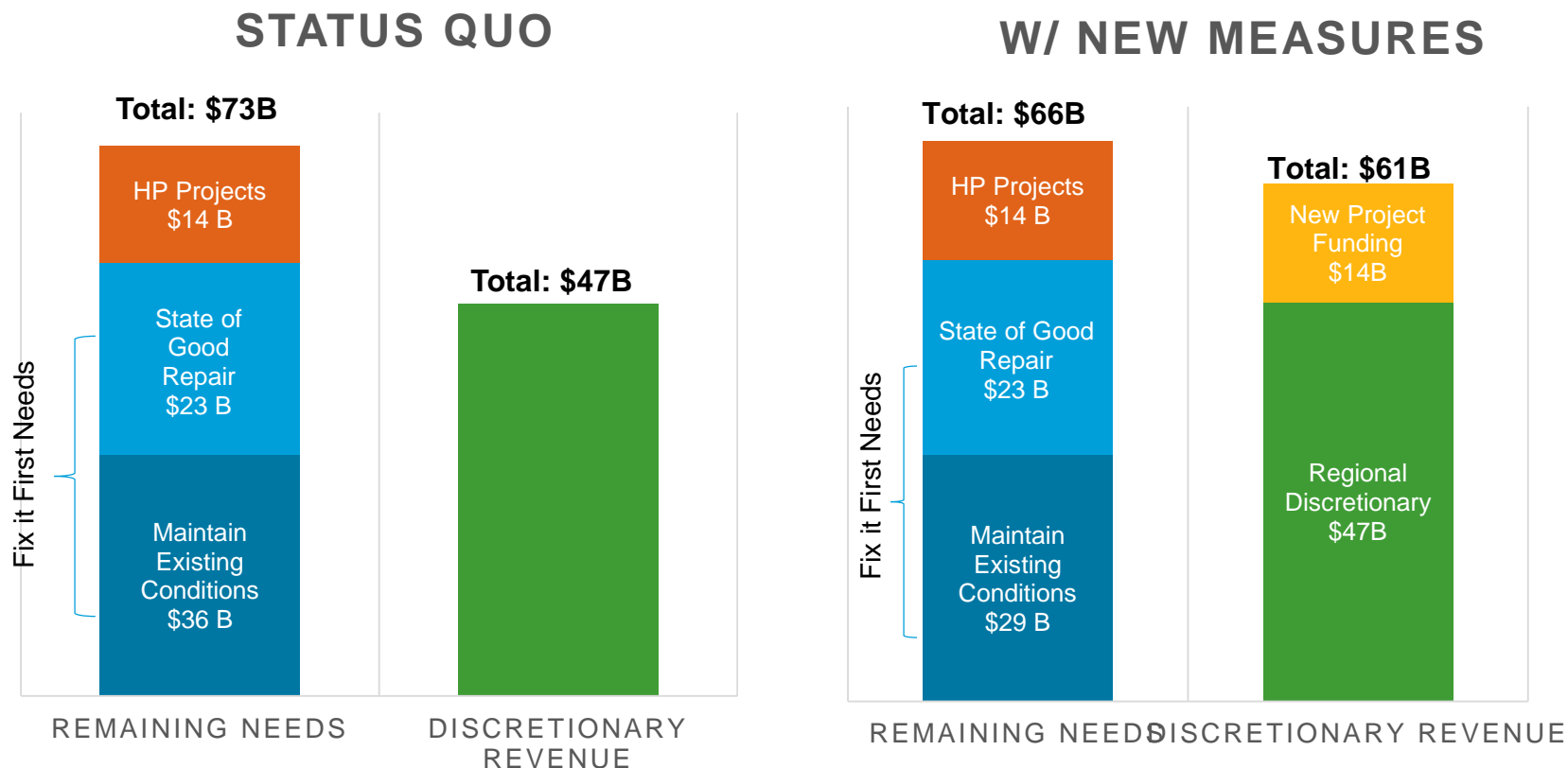
- Total “State of Good Repair” Remaining Need = \$59 Billion (shown above)
- Total “Maintain Existing Conditions” Remaining Need = \$36 Billion

Total Plan Revenues: \$298 Billion

Regional Discretionary Funding  
available: ~\$49 Billion

- Discretionary funding Required to Maintain Existing Conditions = \$36 Billion
- Discretionary funding required for High-Performing Projects = ~\$14 Billion

- Potential funding from upcoming ballot initiatives = \$21 Billion
  - Would reduce State of Repair remaining by \$7 Billion
  - Additional funding for new projects/programs = \$14 Billion





- Open Houses / Public Workshops
- Develop the Preferred Scenario
- Environmental Assessment (EIR)
  - Posted Notice of Preparation (NOP) on May 16
  - 3 scoping sessions beginning in late May and into early June

# Thank You





TO: Planning Committee

DATE: May 6, 2016

FR: Executive Director

RE: Plan Bay Area 2040: Scenario Evaluation

### **Background**

MTC and ABAG have developed and evaluated three alternative land use and transportation scenarios illustrating the effects that different housing, land use and transportation strategies have on our adopted Plan Bay Area (PBA) 2040 goals and performance targets. This evaluation will inform the development of the region's "preferred scenario," which will incorporate some of the best aspects of the three scenarios and form the framework for PBA 2040.

### **Alternative Scenarios Descriptions**

The three scenarios describe different alternatives for how expected growth in population, jobs and housing units might be distributed, and the types of transportation investments needed to support these growth patterns. While the scenarios vary in terms of the intensity of development patterns and transportation investments, they maintain the same regional forecasts for jobs, population, households and transportation revenues. The scenarios are described in more detail in **Attachment 1**.

### **Land Use Strategies**

ABAG forecasts an additional 1.3 million jobs, 2.4 million people and therefore the need for approximately 820,000 housing units between 2010 and 2040. The scenarios vary in terms of the different combinations of strategies that can be used to accommodate this future growth. The strategies can affect land use patterns by changing a community's capacity for new development or incentivizing a particular type or location of growth. Each scenario builds on the Bay Area's existing land use pattern and transportation network, while also taking into account local plans for growth, historical trends, the results of the most recent PDA assessment. **Attachment 1** also includes the specific strategies included under each scenario.

The differing land use strategies work to vary the intensity and location of the future growth of housing and jobs. The tables in **Attachment 2** highlight the growth distribution within three distinct geographic regions:

- Big 3 (the region's three largest cities – San Jose, San Francisco, and Oakland)
- Bayside (generally cities directly adjacent to San Francisco Bay – e.g., Hayward, San Mateo, and Richmond)
- Inland, Coastal, and Delta (generally cities just outside of Bayside – e.g., Walnut Creek, Dublin, Santa Rosa, Antioch, Brentwood, Dixon)

### **Transportation Strategies**

PBA 2040 forecasts \$299 billion of federal, state, regional and local transportation revenues over the 24-year period. Of this amount, approximately \$44 billion (15% of total PBA revenues) is assumed to be discretionary. The three scenarios vary in terms of how this \$44 billion is distributed across maintenance, system enhancement and major capital projects. This distribution is shown in **Attachment 3**.

Each of the scenarios assumes a varying distribution of funding for major projects versus maintenance and to roads versus public transit. In the Main Streets scenario (scenario 1), over half of all discretionary investments are directed towards state of good repair, fully funding state highway pavement needs and moving the region much closer to a state of good repair on local streets. Major projects are more focused on highway improvements – which feature lower operating and maintenance costs than public transit – and thus constitute a smaller share of the distribution. In Connected Neighborhoods (scenario 2) and Big Cities (scenario 3), there are significantly greater needs for transit frequency increases and new core capacity transit lines, resulting a smaller share of funding going towards maintenance (in particular, highway and local streets maintenance).

The three scenarios maintain a consistent level of investment in system enhancements, comprising several discretionary funding sources including One Bay Area Grant, Regional Transportation Improvement Program and other sources for active transportation and goods movement. MTC and the congestion management agencies are working to develop more specific projects and program categories for the preferred scenario.

**Attachment 4** describes the types of major projects included under each scenario. These comprise capacity-adding projects above \$100 million analyzed in the PBA 2040 project performance assessment. While major projects only comprise 24 to 38 percent of total transportation investment across the three scenarios, these investments typically have the most pronounced impact on a scenario alternative's performance.

### **Performance Targets Overview**

After six months of public engagement and deliberation, MTC and ABAG adopted goals and performance targets in fall 2015, establishing the foundation of PBA 2040. Each of the 13 performance targets compares baseline conditions with conditions in the future to understand better whether the region is expected to move in the right direction or the wrong direction under each scenario. Oftentimes, the targets are aspirational in nature, making them quite difficult to achieve. For example, a given scenario may implement a suite of policy measures to address a particular issue, but available tools and funding remain too constrained to move the needle in the right direction. Results<sup>1</sup> for the performance targets for all seven goals are included in **Attachment 5**.

Only two targets are mandatory for the region to achieve under Senate Bill 375 – Climate Protection and Adequate Housing. The remaining 11 targets are voluntary, meaning that the adopted PBA does not have to achieve them. That said, the targets provide a useful reference point for policymakers and the public to consider when weighing the pros and cons of each scenario. As these are draft scenarios, there will be future opportunities to refine the strategies incorporated into a preferred scenario – and perhaps move closer to achieving some of the performance targets.

### **Key Findings from Performance Targets Results**

- **While all three scenarios achieve the greenhouse gas target, lower levels of driving in Connected Neighborhoods and Big Cities result in stronger performance.** Compared to the more dispersed land use pattern in Main Streets, these two scenarios have higher non-auto mode shares that yield additional greenhouse gas benefits and build upon the foundation of the Climate Initiative Program (which is included in all three scenarios).

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<sup>1</sup> Note that scenario performance target results shown in the attachment remain in draft form. Select target results reflect year 2035 performance, while the final target results available later this year will reflect the adopted horizon year of 2040.

- **The region's ambitious public health target remains stubbornly out of reach across all scenarios.** Much higher levels of walking and bicycling, combined with significant reductions in traffic collisions, would be needed to improve residents' health outcomes. Slightly stronger performance in Connected Neighborhoods and Big Cities indicates that a denser land use pattern better supports active transportation, and therefore public health outcomes, in the region.
- **Strict urban growth boundaries are effective in focusing growth within the existing urban footprint.** Connected Neighborhoods and Big Cities nearly achieve the Open Space and Agricultural Preservation target due to their inclusion of strict urban growth boundaries, while No Project and Main Streets fare worse on the target.
- **Significant housing affordability challenges exist in all three scenarios.** Challenges related to affordability and displacement risk increase in all three scenarios, with No Project and Big Cities resulting in the greatest adverse impacts. Despite various housing and land use strategies included across all the scenarios to make the region more affordable, housing costs continue to rise, reflecting an increasingly expensive Bay Area housing market.
- **Goods movement will benefit from regional transportation investments and smart land use decisions.** Main Streets' investments in regional express lanes helps to reduce congestion on major truck corridors. Alternatively, Connected Neighborhoods and Big Cities succeed in improving goods movement by focusing growth in the urban core and encouraging use of non-auto modes through new transportation options.
- **Increasing funding to "Fix It First" leads to much smoother streets and more reliable transit.** Main Streets' funding brings state highway pavement to ideal conditions while improving local streets as well, saving residents a significant amount of money each year. Big Cities achieves the greatest reduction in transit system breakdowns, thanks to its higher funding level for transit maintenance compared to the other scenarios.

### Other Policies and Strategies

PBA 2040's scenario process uses only a small set of land use and transportation strategies to show different options for future land use patterns and the transportation investments and policies needed to support these distributions of future housing and employment growth. The combinations of strategies in the scenarios are included to enable a discussion about regional priorities, and do not represent all of the potential public policy interventions that regional, state, or local governments could use to accomplish the Plan's goals. For instance, the specific structure of many potential state and local tax and regulatory policies falls largely outside the analytic scope of the scenario process, and requires a separate, more robust public policy analysis to determine costs and benefits. Once the preferred scenario is adopted, the final PBA 2040 document will describe a wider range of policies to support the Plan's goals.

### Environmental Assessment

A programmatic Environmental Impact Report (EIR) will be prepared for PBA 2040, with the adoption of the preferred scenario as the basis for the California Environmental Quality Act (CEQA) "project." This environmental assessment fulfills the requirements of the CEQA and is designed to inform decision-makers, responsible and trustee agencies, and Bay Area residents of the range of potential environmental impacts that could result from implementation of the proposed Plan. This EIR will also analyze a range of reasonable alternatives to the proposed project that could feasibly attain most of PBA 2040's basic project objectives and would avoid or substantially lessen any of the significant environmental impacts. The three scenarios, as previously discussed, will be the basis for the initial CEQA alternatives.

Agency and public comments on the scope of the environmental analysis and project alternatives will be solicited through the Notice of Preparation to be issued in mid May 2016, for a 30-day review period and at three regional scoping meetings to be held starting in late May and into early June 2016.

### **Next Steps**

This release marks the beginning of a public process to review and comment on the alternative scenarios. MTC and ABAG will hold a series of public workshops in late May and into mid-June to discuss tradeoffs and gauge support among the land use scenarios and supportive transportation programs and projects. Input received will help us develop the region's draft preferred scenario (land use distribution and transportation investment strategy) for adoption by MTC and ABAG in September 2016. The draft preferred scenario will be subject to environmental review and other analyses throughout the remainder of 2016. PBA 2040 is slated for final adoption in summer 2017.



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Steve Heminger

### **Attachments:**

- **Attachment 1:** Scenario Descriptions and Strategies
- **Attachment 2:** Household Growth by Scenario; Employment Growth by Scenario; and Growth in PDAs by Scenario Tables
- **Attachment 3:** Summary of Discretionary Investments by Project Type by Scenario
- **Attachment 4:** Major Transportation Investments by Scenario
- **Attachment 5:** Goals and Performance Targets & Draft Targets Evaluation Scorecard
- **Attachment 6:** Presentation

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Plan  
Bay Area  
2040

# Major Projects by Scenario








The table below describes how major transportation projects are organized across the three scenarios. This list reflects the majority of projects analyzed in the Plan Bay Area 2040 project performance assessment, which is only a portion of total transportation investment in each scenario. In July, the Commission will consider a draft preferred scenario with a recommended list of investments.

	Class	System	ID	Name	Scenario 1	Scenario 2	Scenario 3
1	Highways	Exurban/Interregional Expansion	411	SR-4 Auxiliary Lanes - Phases 1 + 2 (Concord to Pittsburg)	1		
2	Highways	Exurban/Interregional Expansion	404	SR-4 Widening (Antioch to Discovery Bay)	1		
3	Highways	Exurban/Interregional Expansion	401	TriLink Tollway + Expressways (Brentwood to Tracy/Altamont Pass)	1		
4	Highways	Interchange Expansion	406	I-680/SR-4 Interchange Improvements	1		
5	Highways	Interchange Expansion	409	I-680/SR-4 Interchange Improvements + HOV Direct Connector	1		
6	Highways	Interchange Expansion	601	I-80/I-680/SR-12 Interchange Improvements	1		
7	Highways	Intraregional Expansion (Bottlenecks/Relievers)	519	Lawrence Freeway	1		
8	Highways	Intraregional Expansion (Bottlenecks/Relievers)	211	SR-262 Widening (I-680 to I-880)	1	2	
9	Highways	Intraregional Expansion (Bottlenecks/Relievers)	209	SR-84 Widening + I-680/SR-84 Interchange Improvements (Livermore to I-680)	1	2	
10	Highways	Intraregional Expansion (Bottlenecks/Relievers)	901	US-101 Marin-Sonoma Narrows HOV Lanes – Phase 2	1	2	
11	Other	Express Lanes	1302	MTC Express Lane Network	1		
12	Other	Express Lanes	502	VTA Express Lane Network	1		
13	Other	Express Lanes	201	ACTC Express Lane Network	1		
14	Other	Express Lanes	101	US-101 Express Lanes (San Francisco + San Mateo Counties)	1		
15	Other	ITS	210	I-580 ITS Improvements	1		
16	Other	ITS	1301	Columbus Day Initiative	1	2	3-mod
17	Other	Other	202	East-West Connector (Fremont to Union City)	1		
18	Other	Other	605	Jepson Parkway (Fairfield to Vacaville)	1		
19	Other	Pricing	306	Downtown San Francisco Congestion Pricing (Toll + Transit Improvements)		2	3
20	Other	Pricing	302	Treasure Island Congestion Pricing (Toll + Transit Improvements)		2	3
21	Local Transit	AC Transit	206	AC Transit Service Frequency Improvements		2	3
22	Local Transit	AC Transit	207	San Pablo BRT (San Pablo to Oakland)		2	3
23	Local Transit	Muni	301	Geary BRT	1	2	3
24	Local Transit	Muni	311	Muni Forward Program	1	2	3
25	Local Transit	Muni	304	Southeast Waterfront Transportation Improvements (Hunters Point Transit Center + New Express Bus Services)			3
26	Local Transit	Muni	303	Better Market Street		2	3
27	Local Transit	Muni	312	19th Avenue Subway (West Portal to Parkmerced)			3
28	Local Transit	Muni	104	Geneva-Harney BRT + Corridor Improvements			3
29	Local Transit	Muni	313	Muni Service Frequency Improvements			3
30	Local Transit	Other Local	903	Sonoma County Service Frequency Improvements	1	2	

31	Local Transit	Other Local	204	Broadway Streetcar			3
32	Local Transit	VTA	505	Capitol Expressway LRT – Phase 2 (Alum Rock to Eastridge)	2		3
33	Local Transit	VTA	522	VTA Service Frequency Improvements (10-Minute Frequencies)	2		3
34	Local Transit	VTA	506	El Camino Real BRT (Palo Alto to San Jose)	2		3
35	Local Transit	VTA	507	Vasona LRT – Phase 2 (Winchester to Vasona Junction)			3
36	Local Transit	VTA	510	Downtown San Jose Subway (Japantown to Convention Center)			3
37	Local Transit	VTA	513	North Bayshore LRT (NASA/Bayshore to Google)			3
38	Local Transit	VTA	504	Stevens Creek LRT			3
39	Local Transit	VTA	515	Tasman West LRT Realignment (Fair Oaks to Mountain View)			3
40	Local Transit	VTA	516	VTA Express Bus Frequency Improvements			3
41	Regional Transit	BART	501	BART to Silicon Valley – Phase 2 (Berryessa to Santa Clara)	2		3
42	Regional Transit	BART	1001	BART Metro Program (Service Frequency Increase + Bay Fair Operational Improvements + SFO Airport Express Train)	2		3
43	Regional Transit	BART	203	Irvington BART Infill Station	2		3
44	Regional Transit	Caltrain	1102	Caltrain Modernization - Phase 1 + Phase 2 (Electrification + Service Frequency Increase + Capacity Expansion)	2		3
45	Regional Transit	Caltrain	1101	Caltrain Modernization - Phase 1 (Electrification + Service Frequency Increase)	2		3
46	Regional Transit	Caltrain	307	Caltrain Modernization - Phase 1 (Electrification + Service Frequency Increase) + Caltrain to Transbay Transit Center	2		3
47	Regional Transit	Ferry	1206	Alameda Point-San Francisco Ferry			3
48	Regional Transit	Ferry	1202	Oakland-Alameda-San Francisco Ferry Frequency Improvements			3
49	Regional Transit	Ferry	1203	Vallejo-San Francisco + Richmond-San Francisco Ferry Frequency Improvements	2		3
50	Regional Transit	Ferry	1204	Berkeley-San Francisco Ferry			3
51	Regional Transit	Regional Express Bus	9999	Suburban Local Bus Service Frequency Improvements (concept)	1	2	
52	Regional Transit	Regional Express Bus	604	Solano County Express Bus Network	1		
53	Regional Transit	Regional Express Bus	308	San Francisco Express Bus Network			3
54	Regional Transit	Regional Express Bus	205	Express Bus Bay Bridge Contraflow Lane			3
55	Regional Transit	Regional Express Bus	801	Golden Gate Transit Frequency Improvements			3





# Draft Performance Target Results

Goal		Target*	%	No Project	Main Streets	Connected Neighborhoods	Big Cities
	Climate Protection	<b>1</b> Reduce per-capita CO2 emissions	-15%	-3%	-15%	-18%	-20%
	Adequate Housing	<b>2</b> House the region's population	100%	100%	100%	100%	100%
	Healthy and Safe Communities	<b>3</b> Reduce adverse health impacts	-10%	-0%	-0%	-1%	-1%
	Open Space and Agricultural Preservation	<b>4</b> Direct development within urban footprint	100%	71%	71%	100%	100%
	Equitable Access	<b>5</b> Decrease H+T share for lower-income households	-10%	+15%	+13%	+13%	+13%
		<b>6</b> Increase share of affordable housing	+15%	-0%	-0%	+1%	+0%
		<b>7</b> Do not increase share of households at risk of displacement	+0%	+20%	+9%	+8%	+15%
	Economic Vitality	<b>8</b> Increase share of jobs accessible in congested conditions	+20%	-3%	-1%	-1%	-1%
		<b>9</b> Increase jobs in middle-wage industries	+38%	+43%	+43%	+43%	+43%
		<b>10</b> Reduce per-capita delay on freight network	-20%	+27%	-24%	-21%	-38%
	Transportation System Effectiveness	<b>11</b> Increase non-auto mode share	+10%	+1%	+2%	+3%	+3%
		<b>12</b> Reduce vehicle O&M costs due to pavement conditions	-100%	+57%	-65%	-7%	+20%
		<b>13</b> Reduce per-rider transit delay due to aged infrastructure	-100%	-56%	-76%	-77%	-83%

Notes: \*Complete target language as adopted by the Commission and ABAG Executive Board can be found at <http://planbayarea.org/the-plan/plan-details/goals-and-targets.html>; target language shown above is summarized for brevity. Please note that scenario performance results remain in draft form until all scenarios are run for analysis year 2040 later this year.

Symbols used in summary tables:

 Performance moving in wrong direction from target

 Performance moving in right direction, but falls well short of target

 Target achieved

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# Scenario #1: Main Streets

## Description

Scenario 1 targets future population and employment growth to the downtowns of every city in the Bay Area to foster a region of moderately-sized, integrated town centers. This scenario emphasizes a dispersed distribution of households and jobs and limited growth in San Jose, San Francisco, and Oakland. As a result, a number of the region's cities would experience significant growth and different types of development compared to existing patterns. As in the other scenarios, most growth will be in locally-identified PDAs, but this scenario offers the most dispersed growth pattern, meaning that cities outside the region's core are likely to see higher levels of growth. Within cities, more growth will be accommodated outside of PDAs than in other scenarios, with an emphasis on high opportunity areas that have higher levels of educational opportunities, economic mobility, and neighborhood services.

To accommodate this growth, investments, including resources for affordable housing, will be dispersed across PDAs, Transit Priority Areas (TPAs), other transit-proximate locations outside PDAs, and underutilized transportation corridors across the region. This scenario comes closest to resembling a traditional suburban pattern, with an increase in greenfield development to accommodate the dispersed growth pattern. While an emphasis on multi-family and mixed-use development in downtowns will provide opportunities for households of all incomes to live near a mix of jobs, shopping, services, and other amenities, this scenario also assumes that many people will drive significant distances by automobile to get to work.

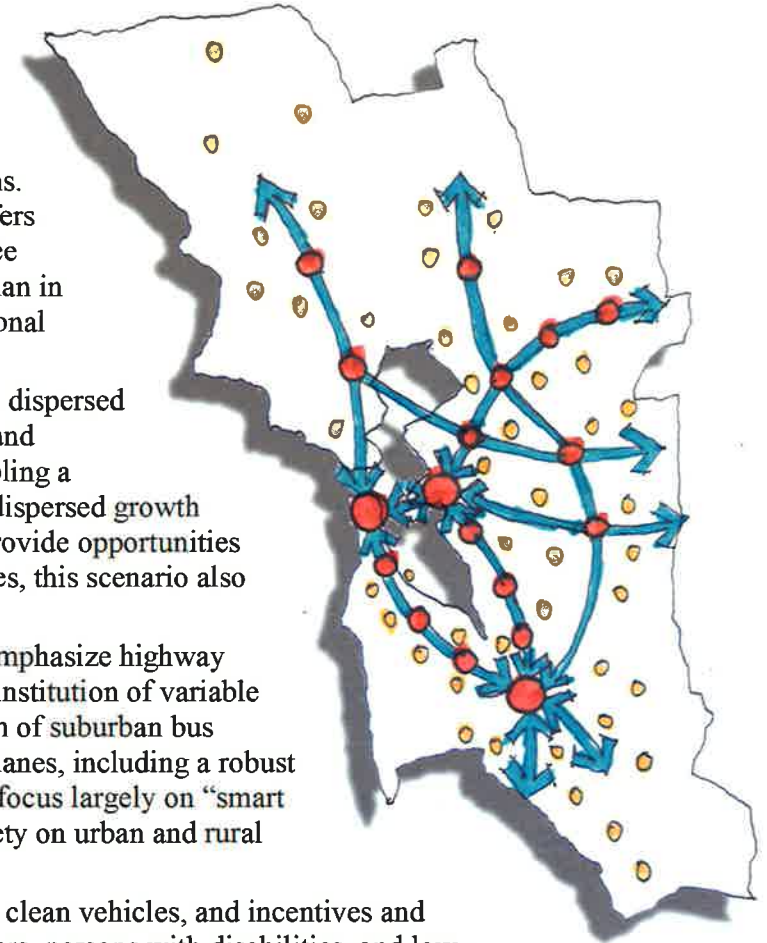
To support this scenario's dispersed growth pattern, transportation investment priorities will emphasize highway strategies, including the expansion of high-occupancy toll lanes on all regional highways, the institution of variable pricing, and highway widening at key bottlenecks. The scenario will also emphasize expansion of suburban bus service. Bicycle and pedestrian infrastructure will create a network of regional trails and bike lanes, including a robust regional network of bike sharing. To support industry and goods movement, the scenario will focus largely on "smart operations and deliveries"—technology and operations to reduce congestion and increase safety on urban and rural roads.

To reach our climate goals, this scenario sees heavy investments in technology advancements, clean vehicles, and incentives and pursues near-zero and zero emissions strategies wherever feasible. The mobility needs of seniors, persons with disabilities, and low-income communities will be addressed most centrally by "mobility management" solutions to link individuals to travel options that meet their specific needs, as well as the provision of demand-responsive strategies by the public, non-profit, and private sectors.

## Land Use Strategies

In this scenario, land use strategies emphasize a more dispersed growth pattern. Compared to the other scenarios, cities outside the region's core are likely to see higher levels of growth and, within cities, more growth will be accommodated outside PDAs, with an emphasis on high opportunity areas. Specific strategies include:

- Zoning: upzoning of select suburban areas to increase residential and commercial development capacity.



- Open space: allows urban growth boundaries to expand faster than expected (by 565 square miles) compared to past trends to accommodate more dispersed growth.
- Reduce parking minimums: in PDAs along regional rail transit (such as BART, Caltrain, Amtrak, Altamont Corridor Express, and SMART).
- Affordable housing: encourages more affordable housing choices through the following strategies:
  - Inclusionary zoning- assumes a low level of inclusionary units (deed-restricted) with a proportion of 5% in high-opportunity jurisdictions.
  - Assesses fees on commercial development in high VMT areas to subsidize deed-restricted housing.
  - Assumes imposition of other tax policies to subsidize over \$500 million annually of affordable units in PDAs.

### **Transportation Strategies**

Investments to increase the frequency of suburban bus operations, manage travel demand, and expand the capacity of our highway network will be critical to enable this pattern of growth. Since job growth is more dispersed throughout the region, major public transit expansions or extensions such as fixed-guideway extensions and core capacity enhancements will be a lower priority. Strategies include the following (see **Attachment 2** for specific major investments):

- Transit service expansion: Pursue strategic transit investments, especially bus improvements, to provide access to increasingly dispersed job centers.
- Express lanes: Leverage technological advances to use roadway capacity more efficiently, while emphasizing freeway-focused pricing like Express Lanes / Managed Lanes as complementary strategies.
- Highway capacity: Invest in strategic highway capacity increases to accommodate this scenario's growth pattern.
- State of good repair: Emphasize investment into both state of good repair (particularly for highways and local streets across all nine counties).
- Climate Strategies: includes technological advancements (e.g. clean vehicles) and incentive programs to encourage travel options that help meet GHG emissions reduction targets.



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## Scenario #2: Connected Neighborhoods

### Description

Scenario 2 targets future population and employment growth to locally-identified PDAs along major corridors, with an emphasis on growth in medium-sized cities with access to the region's major rail services, such as BART and Caltrain. Outside the PDAs, this scenario sees modest infill development, especially in high opportunity areas. As these communities grow over the next 25 years, compact development and strategic transportation investments will provide residents and workers access to a mix of housing, jobs, shopping, services, and amenities in proximity to transit traditionally offered by more urban environments. Resources for affordable housing will be dispersed across the Bay Area, with some concentration in PDAs to support the development of affordable housing where the most population and employment growth is targeted.

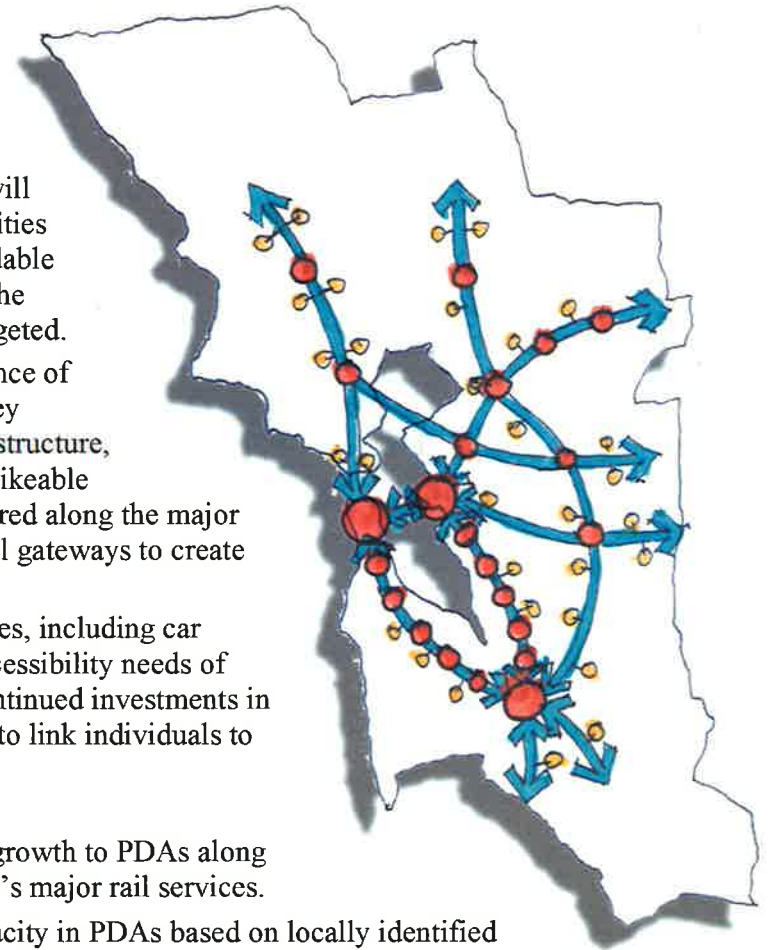
To support this scenario's growth pattern, transportation investments will prioritize maintenance of existing infrastructure. The region's transit system will be modernized and expanded along key corridors to improve commutes and add capacity. Investments in bicycle and pedestrian infrastructure, including the regional bike sharing network, will support the creation of more walkable and bikeable downtowns. To support industry and goods movement, particularly the industrial lands clustered along the major corridors, this scenario will support environmentally sustainable investments at our key global gateways to create local jobs, protect the community, and attract international commerce.

To protect the climate, this scenario prioritizes a number of innovative transportation initiatives, including car sharing and near-zero and zero emission goods movement technologies. The mobility and accessibility needs of seniors, persons with disabilities, and low-income communities will be addressed through continued investments in transit operations, transit capital, and a continued focus on "mobility management" solutions to link individuals to travel options that meet their specific needs.

### Land Use Strategies

In this scenario, land use strategies target capacity increases for population and employment growth to PDAs along major corridors, with an emphasis on growth in medium-sized cities with access to the region's major rail services.

- Zoning: Encourage new housing development by increasing residential development capacity in PDAs based on locally identified PDA place type.
- Development cap: Raises SF office cap to 1.5 million.
- Open space: Protect the region's natural resources by avoiding development on adopted PCAs and accommodating all new growth within existing urban growth boundaries or urban limit lines, using city boundaries as a limit when a jurisdiction has no expansion limit.
- Reduce parking minimums: in PDAs with high levels of transit access along El Camino Real and East Bay corridors.
- Affordable housing: Encourage more affordable housing choices through inclusionary zoning- Assumes a moderate level of inclusionary units (deed-restricted) with a proportion of 10% for jurisdictions with PDAs.



### **Transportation Investments**

Urban growth patterns will require increased investment in our regional rail systems like BART and Caltrain, as well as the expansion of express bus services, including bus rapid transit (BRT) to connect inner-ring suburban communities to major job centers. At the same time, a smaller share of suburban and exurban residents will continue to drive, necessitating sustained investment in freeways and arterials. Strategies include the following (see **Attachment 2** for specific major investments):

- **Transit efficiency:** Prioritize transit efficiency investments to improve frequencies and reduce travel times on core transit lines across the region.
- **Highway efficiency:** Focus on a limited set of high performing highway efficiency investments, including strategic highway capacity improvements to address bottlenecks and provide reliever routes to freeways within the urban core.
- **Transit expansion:** Fund the most cost-effective transit expansion projects that support the region's highest-growth PDAs.
- **State of good repair:** Balance state of good repair needs with expansion and efficiency priorities for all modes; identify opportunities to align state of good repair to support PDA growth by repaving streets and upgrading buses that serve these communities.
- **Climate Strategies:** includes technological advancements (e.g. clean vehicles) and incentive programs to encourage travel options that help meet GHG emissions reduction targets.

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## Scenario #3: Big Cities

### Description

Scenario 3 concentrates future population and employment growth in the locally-identified PDAs and TPAs within the Bay Area's three largest cities: San Jose, San Francisco, and Oakland. Neighboring cities that are already well-connected to these three cities by transit will see moderate to substandard increases in population and employment growth, particularly in their locally-identified PDAs and high opportunity areas. The amount of growth outside these areas is minimal, with limited infill development in PDAs and no greenfield development. Growth in the three biggest cities will require substantial investment to support transformational changes to accommodate households of all incomes. This scenario will prioritize strategies to make these existing urban neighborhoods even more compact and vibrant, and enable residents and workers to easily take transit, bike or walk to clusters of jobs, stores, services, and other amenities. Resources for affordable housing will likewise be directed to the cities taking on the most growth.

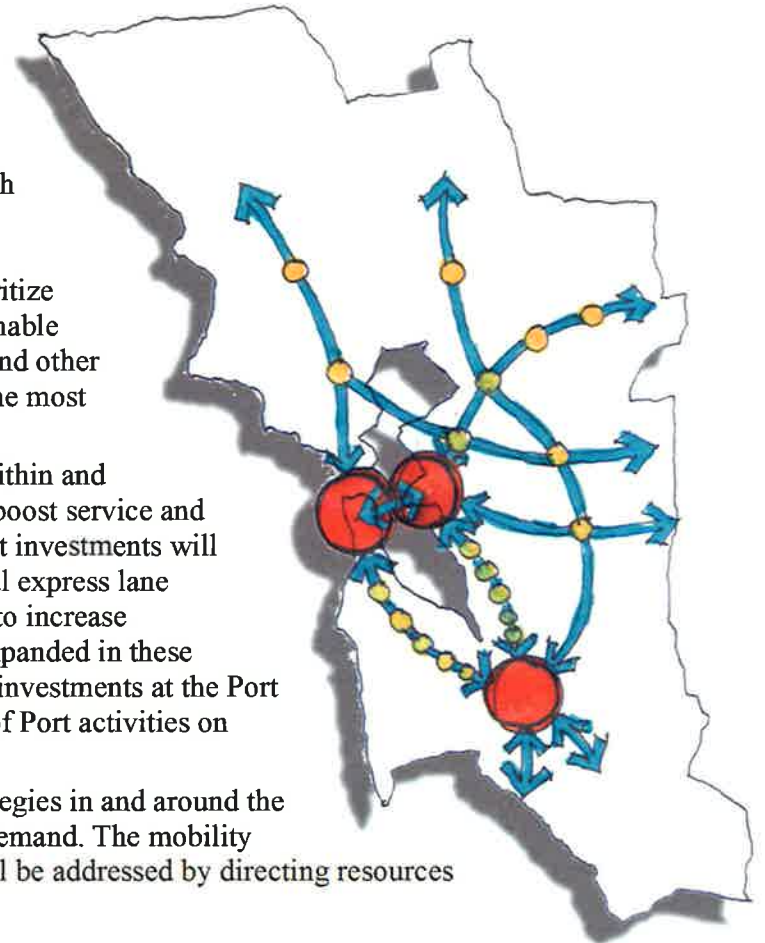
To support this scenario's big city-focused growth pattern, the transportation infrastructure within and directly serving the region's core will be maintained to a state of good repair, modernized to boost service and improve commutes and capacity, and expanded to meet increased demand. While these transit investments will take priority, the roadway network will also require significant investments, such as a regional express lane network to prioritize direct access to the three biggest cities and regional express bus service to increase connections to the region's core. Bicycle and pedestrian infrastructure will be dramatically expanded in these cities, including a robust network of bike sharing. To support industry and goods movement, investments at the Port of Oakland will be ramped up quickly to enable more efficiency and to mitigate the impacts of Port activities on nearby communities.

To reach our climate goals, this scenario will focus technological and financial incentive strategies in and around the three biggest cities, which will accommodate a significant increase in population and travel demand. The mobility and accessibility needs of seniors, persons with disabilities, and low-income communities will be addressed by directing resources for a robust increase in transit operations and capital within the region's core.

### Land Use Strategies

In this scenario, it is assumed that most of the region's population and employment growth will be located in San Francisco, San Jose, and Oakland—with the remainder primarily in cities directly proximate to the three biggest cities and areas well served by transit. Capacity for growth in these cities is emphasized in PDAs, TPAs, and other areas that are well served by transit.

- **Zoning:** Increases development capacity in areas with high transit access (with an emphasis on San Jose, San Francisco, Oakland, and their neighbors) by increasing residential densities in key PDAs, TPAs, and select opportunity sites.
- **Development caps:** Assumes elimination of caps on office development in San Francisco.



- Open space: Protect the region's natural resources by avoiding development on adopted PCAs and accommodating all new growth within existing urban growth boundaries or urban limit lines, using city boundaries as a limit when a jurisdiction has no expansion limit.
- Reduce parking minimums: in three big cities and neighboring communities.
- Affordable housing: Encourage more affordable housing choices through the following strategies:
  - Inclusionary zoning: Assumes a moderate level of inclusionary units (deed-restricted) with a proportion of 10% for jurisdictions with PDAs.
  - Assesses fees on residential development in high VMT areas to subsidize deed-restricted housing in low VMT areas.
- Other tax policy: encourages compact development through modifications to property tax assessment in three biggest cities.

### **Transportation Strategies**

In order to make this high-density growth pattern feasible without significantly worsening traffic congestion or overloading existing transit systems, transit capacity improvements and demand management strategies will be prioritized to accommodate travel to, from, and within the core cities. Strategies include the following (see **Attachment 2** for specific major investments):

- Core capacity and connectivity: Pursue expansion of the South Bay transit system to support high-density development across Silicon Valley, while at the same time prioritizing investment in core capacity projects in San Francisco and Oakland to enable high-density development.
- Transit enhancements and expansion: Link regional rail systems into the heart of the Bay Area's two largest cities – San Francisco and San Jose – while boosting service frequencies to support increasingly-urban commute patterns.
- Congestion pricing: Support urban development in San Francisco by implementing cordon pricing and leveraging motorists' tolls to pay for robust and time-competitive transit services.
- State of good repair: Align operating and maintenance funds to prioritize investments into high-growth cities and high-ridership systems;
- Climate Strategies: includes technological advancements (e.g. clean vehicles) and incentive programs to encourage travel options that help meet GHG emissions reduction targets.



METROPOLITAN  
TRANSPORTATION  
COMMISSION

Bay Area Metro Center  
375 Beale Street  
San Francisco, CA 94105  
TEL 415.778.6700  
WEB [www.mtc.ca.gov](http://www.mtc.ca.gov)

## *Memorandum*

TO: Planning Committee

DATE: May 6, 2016

FR: Executive Director

RE: Plan Bay Area 2040 Project Performance Assessment: Final Performance Results and Guidelines for Applying Results

At the April 2016 MTC Commission Workshop, staff presented performance results for major uncommitted transportation projects and state of good repair investments. This memorandum presents final performance results and proposes guidelines for applying the results in the transportation investment element of the preferred scenario for Plan Bay Area (PBA) 2040, which is slated for adoption in September 2016. Staff requests that the Commission approve the proposed Project Performance Assessment guidelines, which lay out thresholds for defining high and low performance results.

### **Background**

All major uncommitted investments, including projects that expand transit and road facilities, improve road or transit efficiency, and state of good repair investments, are subject to performance assessment per MTC Resolution No. 4182 and prioritization for the investment strategy of PBA 2040. This assessment applies the same framework as PBA 2013, the currently adopted plan, with updated targets and benefit-cost methodology. Staff worked with stakeholders (congestion management agencies, transit agencies, state agencies, local jurisdictions and non-profit organizations) across multiple months in 2015 to update the project performance methodology. For the first time, staff also extended the benefit-cost methodology to state of good repair investments of highways, local streets and roads, rail and bus networks.

The assessment evaluates the degree to which potential transportation investments:

1. Are cost-effective, based on best practices for benefit-cost analysis in which the aim is to consistently quantify and monetize as many reasonably related benefits as possible.
2. Advance the thirteen performance targets adopted by MTC and ABAG in November 2015 (MTC Resolution No. 4204, Revised); and

Staff released draft results to congestion management agencies, project sponsors, and stakeholders in mid-March and presented revised results to the Commission at the end of April. Staff made additional revisions to five projects between the end of April and the May Planning Committee. Final results, reflecting the last set of revisions, are included in Attachment A and a summary of changes are included in Attachment B.



### **Proposed Guidelines for Incorporating Performance Results for Plan Bay Area 2040**

For PBA 2013, the Planning Committee approved the following application guidelines for project performance:

1. Project performance assessment should be used to identify the highest and lowest performing projects.
2. The highest performing projects should be included in the preferred PBA 2040, subject to financial feasibility.
  - a. High performance requires high B/C and moderate targets score *or* high targets score and moderate B/C
3. The lowest performing projects may be considered if the sponsor or the congestion management agency (CMA) can make a compelling case and the project has a realistic funding plan.
  - a. Low performance requires low B/C *or* low targets score

Medium-performing projects and those not evaluated in the assessment are not subject to these guidelines; their inclusion in the draft preferred investment strategy will be based on county priorities, subject to financial feasibility. Attachment C illustrates the connection between performance status and inclusion in the draft preferred investment strategy.

Staff proposes to retain the framework and compelling case process from PBA 2013 and update the thresholds for defining high- and low-performance to reflect changes in performance results between PBA 2013 and PBA 2040. Attachment D includes the performance thresholds from PBA 2013 and the proposed updates for PBA 2040. Attachment E includes a draft list of the high- and low-performing projects using the thresholds in this memo.

Staff further proposes that a CMA or project **sponsor must make a compelling case in writing by June 10, 2016** why a low-performing project should be considered. Sponsors of low-performing projects have several options within the compelling case process:

- A project sponsor could drop their low-performing project.
- A project sponsor could modify their project into something that would be exempt from project assessment (e.g. funded with 100% local monies, request study funding or for a non-capacity increasing phase, scope the project to cost less than \$100 million).
- A project sponsor could submit a Compelling Case for consideration by the Planning Committee under a set of eligible Compelling Case criteria. Attachment F includes a more detailed description of the proposed Compelling Case criteria.

For the latter two options, it is important to note that all projects must eventually fit within the revenue envelope of PBA 2040 (e.g. subject to fiscal constraint).

### **Next Steps**

If the Committee approves this performance process and thresholds, staff will notify CMAs and sponsors of these guidelines and of the opportunity to submit a compelling case if project sponsors seek to include the “low performing” projects in the preferred transportation investment strategy. At the same time MTC staff will continue to work with CMAs and transit operators to develop funding plans for the “high performing” projects for inclusion in the draft preferred investment strategy. Key, near-term milestones for PBA 2040 include:

- May 2016 – MTC Planning Committee approve guidelines

- June 2016 – CMAs/Sponsors submit compelling cases in writing by June 10, 2016
- July 2016 – MTC staff reviews cases and presents recommendations to the Planning Committee for approval
- September 2016 – MTC/ABAG approves the preferred scenario for PBA 2040

### **Recommendation**

Staff requests that this Committee adopt the proposed performance guidance, performance thresholds to be forwarded to the Commission for approval, which will allow sponsors to start the compelling case process.



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Steve Heminger

### **Attachments**

- Attachment A: Final Performance Results Table
- Attachment B: Documentation of Revisions between April and May
- Attachment C: Connection between performance results and the investment strategy
- Attachment D: Proposed Performance Thresholds
- Attachment E: Project Performance Assessment: High-Performers and Low-Performers
- Attachment F : Plan Bay Area 2040 Compelling Case Criteria
- PowerPoint

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Attachments

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ROW	ID	PROJECT NAME	LOCATION (COUNTY)	PROJECT TYPE	ANNUAL BENEFIT	ANNUAL COST	B/C RATIO	TARGETS SCORE
1	1503	Highway Pavement Maintenance (Ideal Conditions vs. Preserve Conditions)	Multi-County	Highway Maintenance	\$638	(\$1)	> 50	 2.5
2	1502	Highway Pavement Maintenance (Preserve Conditions vs. No Funding)	Multi-County	Highway Maintenance	\$2,433	\$144	17	 2.5
3	302	Treasure Island Congestion Pricing (Toll + Transit Improvements)	San Francisco	Congestion Pricing	\$56	\$4	14	 4.5
4	1301	Columbus Day Initiative	Multi-County	ITS	\$421	\$38	11	 4.0
5	209	SR-84 Widening + I-680/SR-84 Interchange Improvements (Livermore to I-680)	Alameda	Intraregional Road Expansion	\$116	\$13	9	 1.0
6	501	BART to Silicon Valley – Phase 2 (Berryessa to Santa Clara)	Santa Clara	Rail Expansion	\$472	\$62	8	 8.0
7	306	Downtown San Francisco Congestion Pricing (Toll + Transit Improvements)	San Francisco	Congestion Pricing	\$84	\$11	7	 7.0
8	1651	Public Transit Maintenance - Rail Operators (Preserve Conditions vs. No Funding)	Multi-County	Rail Maintenance	\$1,351	\$198	7	 9.5
9	506	El Camino Real BRT (Palo Alto to San Jose)	Santa Clara	BRT	\$85	\$13	7	 6.5
10	301	Geary BRT	San Francisco	BRT	\$124	\$20	6	 7.0
11	505	Capitol Expressway LRT – Phase 2 (Alum Rock to Eastridge)	Santa Clara	Rail Expansion	\$77	\$12	6	 5.5
12	518	ACE Alviso Double-Tracking	Santa Clara	Rail Efficiency	\$36	\$6	6	 1.5
13	1650	Public Transit Maintenance - Bus Operators (Preserve Conditions vs. No Funding)	Multi-County	Bus Maintenance	\$623	\$103	6	 8.0
14	1203	Vallejo-San Francisco + Richmond-San Francisco Ferry Frequency Improvements	Multi-County	Ferry	\$29	\$5	6	 4.5
15	203	Irvington BART Infill Station	Alameda	Rail Efficiency	\$30	\$6	5	 3.5
16	101	Express Lane Network (US-101 San Mateo/San Francisco)	Multi-County	Express Lanes	\$48	\$10	5	 0.5
17	903	Sonoma County Service Frequency Improvements	Sonoma	Bus Frequency Improvements	\$75	\$15	5	 5.0
18	523	VTA Service Frequency Improvements (15-Minute Frequencies)	Santa Clara	Bus Frequency Improvements	\$103	\$23	4	 5.0
19	211	SR-262 Connector (I-680 to I-880)	Alameda	Intraregional Road Expansion	\$22	\$5	4	 -0.5
20	1403	Local Streets and Roads Maintenance (Preserve Conditions vs. No Funding)	Multi-County	Local Streets Maintenance	\$1,875	\$428	4	 3.5
21	207	San Pablo BRT (San Pablo to Oakland)	Multi-County	BRT	\$67	\$16	4	 7.0
22	210	I-580 ITS Improvements	Alameda	ITS	\$44	\$11	4	 1.0
23	504	Stevens Creek LRT	Santa Clara	Rail Expansion	\$144	\$38	4	 5.5
24	1001	BART Metro Program (Service Frequency Increase + Bay Fair Operational Improvements + SFO Airport Express Train)	Multi-County	Rail Efficiency	\$430	\$123	3	 9.0
25	1101	Caltrain Modernization - Phase 1 (Electrification + Service Frequency Increase)	Multi-County	Rail Efficiency	\$195	\$56	3	 6.5

all benefits and costs are in millions of 2017 dollars

ROW	ID	PROJECT NAME	LOCATION (COUNTY)	PROJECT TYPE	ANNUAL BENEFIT	ANNUAL COST	B/C RATIO	TARGETS SCORE
26	605	Jepson Parkway (Fairfield to Vacaville)	Solano	Intraregional Road Expansion	\$17	\$5	3	1.0
27	1202	Oakland-Alameda-San Francisco Ferry Frequency Improvements	Multi-County	Ferry	\$16	\$5	3	2.5
28	1102	Caltrain Modernization - Phase 1 + Phase 2 (Electrification + Service Frequency Increase + Capacity Expansion)	Multi-County	Rail Efficiency	\$236	\$77	3	6.5
29	411	SR-4 Auxiliary Lanes - Phases 1 + 2 (Concord to Pittsburg)	Contra Costa	Intraregional Road Expansion	\$44	\$15	3	2.0
30	507	Vasona LRT – Phase 2 (Winchester to Vasona Junction)	Santa Clara	Rail Expansion	\$30	\$11	3	5.0
31	515	Tasman West LRT Realignment (Fair Oaks to Mountain View)	Santa Clara	Rail Expansion	\$48	\$18	3	5.0
32	517	Stevens Creek BRT	Santa Clara	BRT	\$29	\$11	3	5.5
33	102	US-101 HOV Lanes (San Francisco + San Mateo Counties)	Multi-County	Express Lanes	\$63	\$25	3	2.0
34	503	SR-152 Tollway (Gilroy to Los Banos)	Multi-County	Interregional Road Expansion	\$95	\$37	3	-1.5
35	307	Caltrain Modernization - Phase 1 (Electrification + Service Frequency Increase) + Caltrain to Transbay Transit Center	Multi-County	Rail Expansion	\$290	\$113	3	7.0
36	331	Better Market Street	San Francisco	BRT	\$32	\$13	3	4.5
37	1206	Alameda Point-San Francisco Ferry	Multi-County	Ferry	\$12	\$5	2	3.0
38	1204	Berkeley-San Francisco Ferry	Multi-County	Ferry	\$10	\$4	2	5.0
39	1302	Express Lane Network (East and North Bay)	Multi-County	Express Lanes	\$214	\$91	2	3.0
40	206	AC Transit Service Frequency Improvements	Multi-County	Bus Frequency Improvements	\$248	\$120	2	6.5
41	513	North Bayshore LRT (NASA/Bayshore to Google)	Santa Clara	Rail Expansion	\$42	\$22	2	4.0
42	502	Express Lane Network (Silicon Valley)	Santa Clara	Express Lanes	\$69	\$38	2	3.0
43	604	Solano County Express Bus Network	Multi-County	Express Bus Network	\$21	\$12	2	2.5
44	522	VTA Service Frequency Improvements (10-Minute Frequencies)	Santa Clara	Bus Frequency Improvements	\$177	\$99	2	7.0
45	402	eBART – Phase 2 (Antioch to Brentwood)	Contra Costa	Rail Expansion	\$21	\$12	2	4.0
46	311	Muni Forward Program	San Francisco	Bus Frequency Improvements	\$60	\$36	2	6.5
47	901	US-101 Marin-Sonoma Narrows HOV Lanes – Phase 2	Multi-County	Intraregional Road Expansion	\$31	\$19	2	3.0
48	409	I-680/SR-4 Interchange Improvements + HOV Direct Connector	Contra Costa	Intraregional Road Expansion	\$42	\$27	2	3.0
49	103	El Camino Real Rapid Bus (Daly City to Palo Alto)	San Mateo	Bus Frequency Improvements	\$54	\$36	2	2.0
50	401	TriLink Tollway + Expressways (Brentwood to Tracy/Altamont Pass)	Multi-County	Interregional Road Expansion	\$75	\$51	1	-0.5

all benefits and costs are in millions of 2017 dollars

ROW	ID	PROJECT NAME	LOCATION (COUNTY)	PROJECT TYPE	ANNUAL BENEFIT	ANNUAL COST	B/C RATIO	TARGETS SCORE
51	312	19th Avenue Subway (West Portal to Parkmerced)	San Francisco	Rail Efficiency	\$39	\$27	1	7.5
52	801	Golden Gate Transit Frequency Improvements	Multi-County	Express Bus Network	\$11	\$8	1	4.5
53	313	Muni Service Frequency Improvements	San Francisco	Bus Frequency Improvements	\$89	\$79	1	6.0
54	1413	Local Streets and Roads Maintenance (Preserve Conditions vs. Local Funding)	Multi-County	Local Streets Maintenance	\$194	\$198	1	3.5
55	516	VTA Express Bus Frequency Improvements	Santa Clara	Express Bus Network	\$18	\$19	0.9	4.5
56	202	East-West Connector (Fremont to Union City)	Alameda	Intraregional Road Expansion	\$10	\$12	0.9	1.5
57	304	Southeast Waterfront Transportation Improvements (Hunters Point Transit Center + New Express Bus Services)	San Francisco	Express Bus Network	\$16	\$27	0.6	6.0
58	410	Antioch-Martinez-Hercules-San Francisco Ferry	Multi-County	Ferry	\$9	\$16	0.6	1.5
59	403	I-680 Express Bus Frequency Improvements	Multi-County	Express Bus Network	\$12	\$21	0.6	2.5
60	404	SR-4 Widening (Antioch to Discovery Bay)	Contra Costa	Interregional Road Expansion	\$9	\$17	0.5	-0.5
61	510	Downtown San Jose Subway (Japantown to Convention Center)	Santa Clara	Rail Efficiency	\$10	\$18	0.5	6.5
62	104	Geneva-Harney BRT + Corridor Improvements	Multi-County	BRT	\$15	\$46	0.3	5.0
63	508	SR-17 Tollway + Santa Cruz LRT (Los Gatos to Santa Cruz)	Multi-County	Interregional Road Expansion	\$57	\$200	0.3	1.0
64	519	Lawrence Freeway	Santa Clara	Intraregional Road Expansion	\$7	\$34	0.2	2.0
65	601	I-80/I-680/SR-12 Interchange Improvements	Solano	Intraregional Road Expansion	\$5	\$32	0.2	2.5
66	1304	Bay Bridge West Span Bike Path	San Francisco	Bike/Ped	\$4	\$30	0.1	2.0
67	905	SMART – Phase 3 (Santa Rosa Airport to Cloverdale)	Sonoma	Rail Expansion	\$0	\$12	0	4.0
68	1201	San Francisco-Redwood City + Oakland-Redwood City Ferry	Multi-County	Ferry	\$0	\$8	0	2.0
69	205_15	Express Bus Bay Bridge Contraflow Lane	Multi-County	Express Bus Network	\$0	\$10	0	5.0

all benefits and costs are in millions of 2017 dollars

May 2016

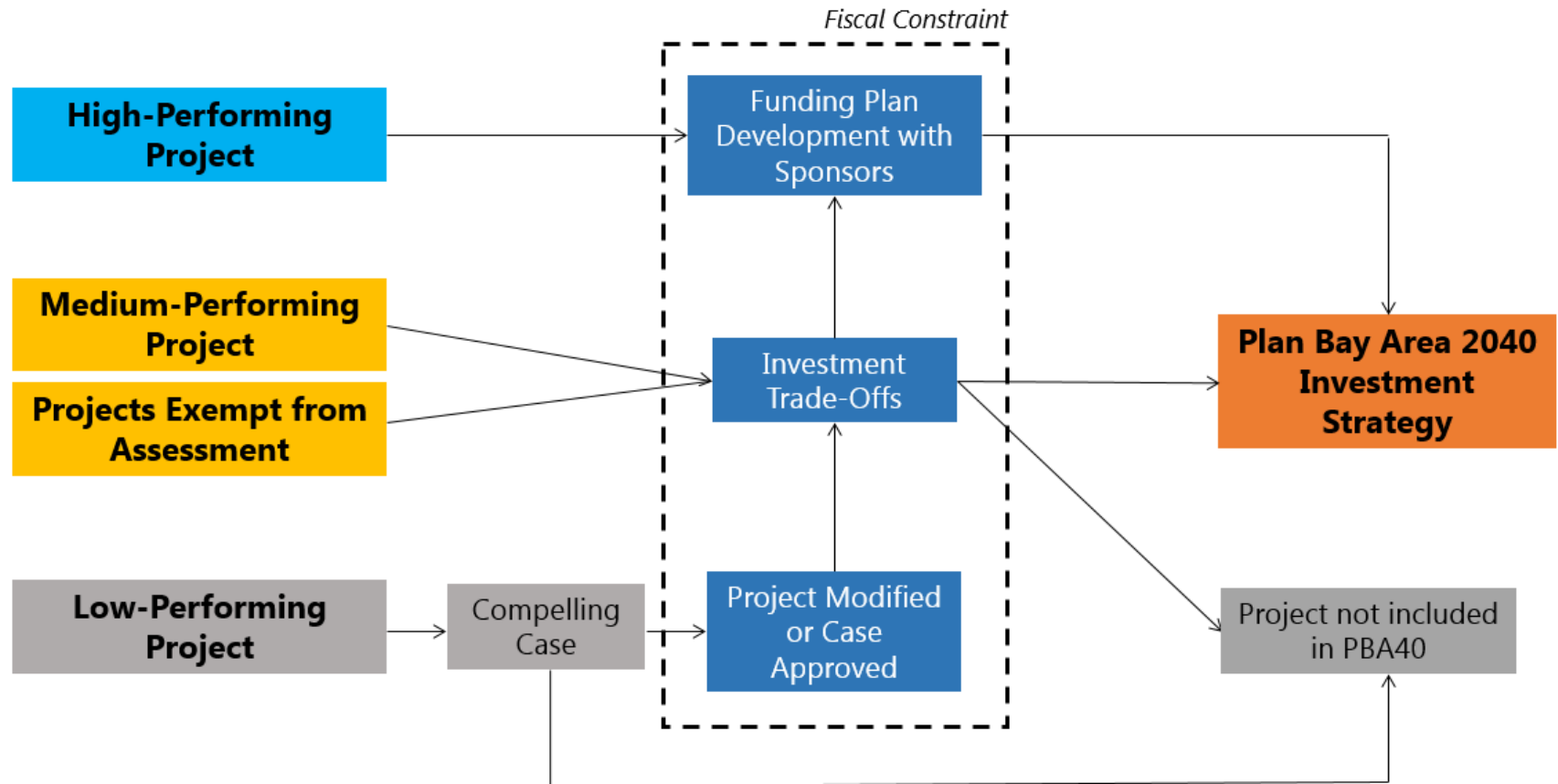
**Attachment B: Summary of Revisions between April and May**

Row #	Project ID	Project Name	Location (County)	Annual Benefit*	Annual Cost*	B/C Ratio
<i>Updated annual cost information</i>						
1	1001	BART Metro Program (Service Frequency Increase + Bay Fair Operational Improvements + SFO Airport Express Train)	Multi-County	\$430	\$123	3
<i>Project modeling refinements</i>						
2	207	San Pablo BRT (San Pablo to Oakland)	Multi-County	\$67	\$16	4
3	312	19th Avenue Subway (West Portal to Parkmerced)	San Francisco	\$39	\$27	1
4	502	Express Lane Network (Silicon Valley)	Santa Clara	\$69	\$38	2
<i>Project dropped from the assessment</i>						
5	1407	Local Streets and Roads Maintenance (Ideal Conditions vs. Preserve Conditions)	Multi-County	--	--	--

\*all benefits and costs are in millions of 2017 dollars

## Attachment C

### Connection between performance results and the investment strategy



**Attachment D**

**Proposed Performance Thresholds**

Performance Definition	Plan Bay Area			Plan Bay Area 2040		
<b><u>High-Performer</u></b>	Benefit-Cost Ratio		Targets Score	Benefit-Cost Ratio		Targets Score
High benefit-cost ratio <b>and</b> medium targets score	$\geq 10$	And	$\geq 2$	$\geq 7$	And	$\geq 3$
High targets score <b>and</b> medium benefit-cost ratio	$\geq 5$	And	$\geq 6$	$\geq 3$	And	$\geq 7$
<b><u>Low-Performer</u></b>						
Low benefit-cost ratio <b>or</b> low targets score	$< 1$	Or	$\leq -1$	$< 1$	Or	$< 0$



## Attachment E: Project Performance Assessment Draft High-Performers and Low-Performers\*\*

**DRAFT** High-Performing Projects: High B/C ( $\geq 10$ ) and Moderate Targets Score ( $\geq 3$ )  
OR High Targets Score ( $\geq 7$ ) and Moderate B/C (between 3 and 10)

Row #	Project ID	Project Name	Location (County)	B/C Ratio	Targets Score	Project Description
1	302	Treasure Island Congestion Pricing	San Francisco	14	4.5	Charges a toll for residents to exit Treasure Island with net revenues used to increase ferry and bus service to/from Treasure Island.
2	1301	Columbus Day Initiative	Multi-County	11	4.0	Increases capacity of freeways and arterials through adaptive ramp metering, signal coordination, and hard-shoulder running lanes for carpools and buses.
3	501	BART to Silicon Valley – Phase 2	Santa Clara	8	8.0	Extends BART from Berryessa through a new BART subway to Alum Rock, Downtown San Jose, Diridon Station, and Santa Clara.
4	306	Downtown San Francisco Congestion Pricing	San Francisco	7	7.0	Charges a toll to enter/exit the northeast quadrant of San Francisco with net revenues used to increase bus service, implement transit priority infrastructure, and pedestrian and bicycle improvements.
5	1651	Public Transit Maintenance – Rail Operators	Multi-County	7	9.5	Funds the maintenance of all assets related to providing existing rail service throughout the Bay Area.
6	301	Geary BRT	San Francisco	6	7.0	Constructs a bus rapid transit line with dedicated lanes along Geary Boulevard in San Francisco.
7	207	San Pablo BRT	Multi-County	4	7.0	Constructs a bus rapid transit line with dedicated lanes along San Pablo Avenue from San Pablo to downtown Oakland.
8	1650	Public Transit Maintenance – Bus Operators	Multi-County	6	8.0	Funds the maintenance of all assets related to providing existing bus service throughout the Bay Area.
9	1001	BART Metro Program	Multi-County	3	9.0	Increases frequency on all BART lines through infrastructure upgrades, new turnbacks and providing new express train service to SFO.
10	307	Caltrain Modernization + Caltrain to Transbay Transit Center	Multi-County	3	7.0	Electrifies the Caltrain line to support faster and more frequent high-capacity transit from San Jose to San Francisco and constructs a tunnel from the existing 4th and King terminus to the Transbay Terminal.

\*\*thresholds for high- and low-performing projects reflect staff proposals for May 2016 Planning Committee; results on this table are revised draft results and subject to change before final results are released in mid-May.

**DRAFT** Low-Performing Projects: Low B/C (<1) OR Low Targets Score (<0)\*\*

Row #	Project ID	Project Name	Location (County)	B/C Ratio	Targets Score	Project Description
1	211	SR-262 Connector	Alameda	4	-0.5	Upgrades existing facility to freeway standard from I-880 to I-680 and grade separates the facility.
2	401	TriLink Tollway + Expressways	Multi-County	1	-0.5	Constructs a new tollway from Brentwood to Tracy that would replace the existing Vasco Road, upgrades Byron Highway and constructs a new east-west facility at Byron Airport.
3	503	SR-152 Tollway	Multi-County	3	-1.5	Realigns SR-152 on a new facility east of Gilroy.
4	516	VTA Express Bus Frequency Improvements	Santa Clara	0.9	4.5	Increases frequency on VTA express bus routes from south to north Santa Clara County.
5	202	East-West Connector	Alameda	0.9	1.5	Constructs a new facility between I-880 and SR-238 in Fremont near the Union City BART station.
6	304	Southeast Waterfront Transportation Improvements	San Francisco	0.6	6.0	Increases transit service to a new Hunters Point Transit Center including new express bus service to downtown San Francisco.
7	410	Antioch-Martinez-Hercules-San Francisco Ferry	Multi-County	0.6	1.5	Implements ferry service between Antioch, Martinez, Hercules and downtown San Francisco.
8	403	I-680 Express Bus Frequency Improvements	Multi-County	0.6	2.5	Increases express bus frequencies along I-680 between the Tri-Valley and Central Contra Costa County.
9	404	SR-4 Widening	Contra Costa	0.5	-0.5	Widens SR-4 to six lanes from Laurel Road to Balfour Road and to four lanes from Balfour Road to the San Joaquin County Line.
10	510	Downtown San Jose Subway	Santa Clara	0.5	6.5	Constructs a subway in downtown San Jose that would replace four surface stations with two underground stations.
11	104	Geneva Harney BRT + Corridor Improvements	Multi-County	0.3	5.0	Constructs a full interchange at Candlestick/US-101, extends Geneva Avenue to US-101, constructs a bus bridge in Hunters Point and implements a bus rapid transit line from Hunters Point Transit Center to the Balboa Park BART Station.
12	508	SR-17 Tollway + Santa Cruz LRT	Multi-County	0.3	1.0	Replaces Highway 17 with a tolled tunnel from Los Gatos to Santa Cruz and extends light rail from Vasona Junction to downtown Santa Cruz on the new facility.
13	519	Lawrence Freeway	Santa Clara	0.2	2.0	Upgrades Lawrence Expressway to a freeway facility with grade separations and minor widening at interchanges.

Row #	Project ID	Project Name	Location (County)	B/C Ratio	Targets Score	Project Description
14	601	I-80/I-680/SR-12 Interchange Improvements	Solano	<b>0.2</b>	<b>2.5</b>	Widens I-80 and I-680 in the vicinity of the interchange and constructs direct-connectors, as well as HOV connector ramps, between I-80, I-680, and SR-12.
15	1304	Bay Bridge West Span Bike Path	San Francisco	<b>0.1</b>	<b>2.0</b>	Constructs a bike facility on the western span of the Bay Bridge between Treasure Island and San Francisco.
16	905	SMART – Phase 3	Sonoma	<b>0</b>	<b>4.0</b>	Extends SMART service from north of Santa Rosa to Windsor, Healdsburg, and Cloverdale.
17	1201	San Francisco-Redwood City Ferry + Oakland-Redwood City Ferry	Multi-County	<b>0</b>	<b>2.0</b>	Implements ferry service from San Francisco and Oakland to the Port of Redwood City.
18	205_15	Express Bus Bay Bridge Contraflow Lane	Multi-County	<b>0</b>	<b>5.0</b>	Implements a westbound bus-only lane on the eastbound deck of the Bay Bridge during the AM peak period.

\*\*thresholds for high- and low-performing projects reflect staff proposals for May 2016 Planning Committee; results on this table are revised draft results and subject to change before final results are released in mid-May.

## Attachment F: Project Performance Assessment Draft Compelling Case Criteria

A case can be made to include a low-performing project in the preferred Plan Bay Area 2040 transportation investment plan if the project is financially feasible and falls under one of the categories listed below. The first category, which applies to projects with a low benefit-cost ratio only, acknowledges that some benefits are not fully captured in the regional travel forecast model. The second category, which applies to all projects, acknowledges that federal requirements give special preference to certain kinds of investments, such as those that improve air quality or benefit low-income or minority communities.

Category 1: Benefits Not Captured by the Travel Model	Category 2: Federal Requirements
<ul style="list-style-type: none"><li>a) interregional or recreational corridor</li><li>b) provides significant goods movement benefits**</li><li>c) project benefits accrue from reductions in weaving, transit vehicle crowding, or other travel behaviors not well represented in the travel model</li><li>d) enhances system performance based on complementary new funded investments</li></ul>	<ul style="list-style-type: none"><li>a) cost-effective means of reducing CO<sub>2</sub>, PM, or ozone precursor emissions</li><li>b) improves transportation mobility/reduces air toxics and PM emissions in communities of concern</li></ul>

\*\*updated criteria from Plan Bay Area which replaces the criteria for accessing international airports with providing significant goods movement benefits



METROPOLITAN  
TRANSPORTATION  
COMMISSION

Bay Area Metro Center  
375 Beale Street  
San Francisco, CA 94105  
TEL 415.778.6700  
WEB [www.mtc.ca.gov](http://www.mtc.ca.gov)

## Memorandum

TO: Bay Area Partnership Board

DATE: May 27, 2016

FR: Ken Kirkey, Director, Planning

RE: Plan Bay Area 2040: Scenarios, Performance Thresholds, and Investment Strategy Discussion

### Background

Plan Bay Area (PBA) 2040 has entered a critical phase in its development. MTC and ABAG have developed and evaluated three alternative land use and transportation scenarios illustrating the effects that different housing, land use and transportation strategies have on adopted goals and performance targets. MTC staff has also released final project performance results for major uncommitted projects and state of good repair investments. Lastly, staff has begun development of the Plan's investment strategy, which will apportion available regional discretionary revenues across operating and maintenance needs, system enhancements, and major projects.

### Alternative Scenarios Descriptions

The three scenarios describe different alternatives for how expected growth in population, jobs and housing units might be distributed, and the types of transportation investments needed to support these growth patterns. While the scenarios vary in terms of the intensity of development patterns and transportation investments, they maintain the same regional forecasts for jobs, population, households and transportation revenues. This evaluation will inform the development of the region's "preferred scenario," which will incorporate some of the best aspects of the three scenarios and form the framework for PBA 2040. Attachment A provides more background on the scenario evaluation.

### Project Performance Results and Thresholds

All major uncommitted investments, including projects that expand transit and road facilities, improve road or transit efficiency, and state of good repair investments, are subject to performance assessment per MTC Resolution No. 4182 and prioritization for the investment strategy of PBA 2040. The MTC Commission has adopted guidelines for applying the results. Staff has notified CMAs and sponsors of these guidelines and of the opportunity to submit a compelling case if project sponsors seek to include the "low performing" projects in the preferred transportation investment strategy. Attachment B provides more detail on the project performance results and thresholds.

### **Investment Strategy**

PBA 2040 forecasts \$298 billion of federal, state, regional and local transportation revenues over the 24-year period. Of this amount, approximately \$49 billion is assumed to be discretionary. Over the planning horizon, the region will also require significant investment to operate and maintain the existing system. Staff estimates that \$241 billion is required to achieve a state of good repair and \$217 billion is required to maintain existing conditions for transit operating, transit capital maintenance, regional and local bridges, state highways, and local streets and roads. Over the next several months, staff will be working to reconcile state of good repair needs with system enhancement and major project priorities through the development of the Plan's investment strategy. MTC staff will work closely with the CMAs and operators on the investment strategy, which will be presented concurrently with the Plan's preferred scenario in September 2016.

### **Next Steps**

MTC and ABAG are holding a series of public workshops through mid-June to discuss tradeoffs and gauge support among the land use scenarios and supportive transportation programs and projects. Input received will help us develop the region's draft preferred scenario (land use distribution and transportation investment strategy) for adoption by MTC and ABAG in September 2016. The draft preferred scenario will be subject to CEQA environmental review and other analyses throughout the remainder of 2016. PBA 2040 is slated for final adoption in summer 2017.

Attachments:      Presentation  
Attachment A:      Plan Bay Area 2040: Scenario Evaluation  
Attachment B:      Plan Bay Area 2040 Project Performance Assessment:  
                            Final Performance Results and Guidelines for Applying Results



# The Bay Area Partnership

Ken Kirkey, Planning Director, MTC  
June 1, 2016



METROPOLITAN  
TRANSPORTATION  
COMMISSION

# 3 SCENARIOS



**Main Streets**



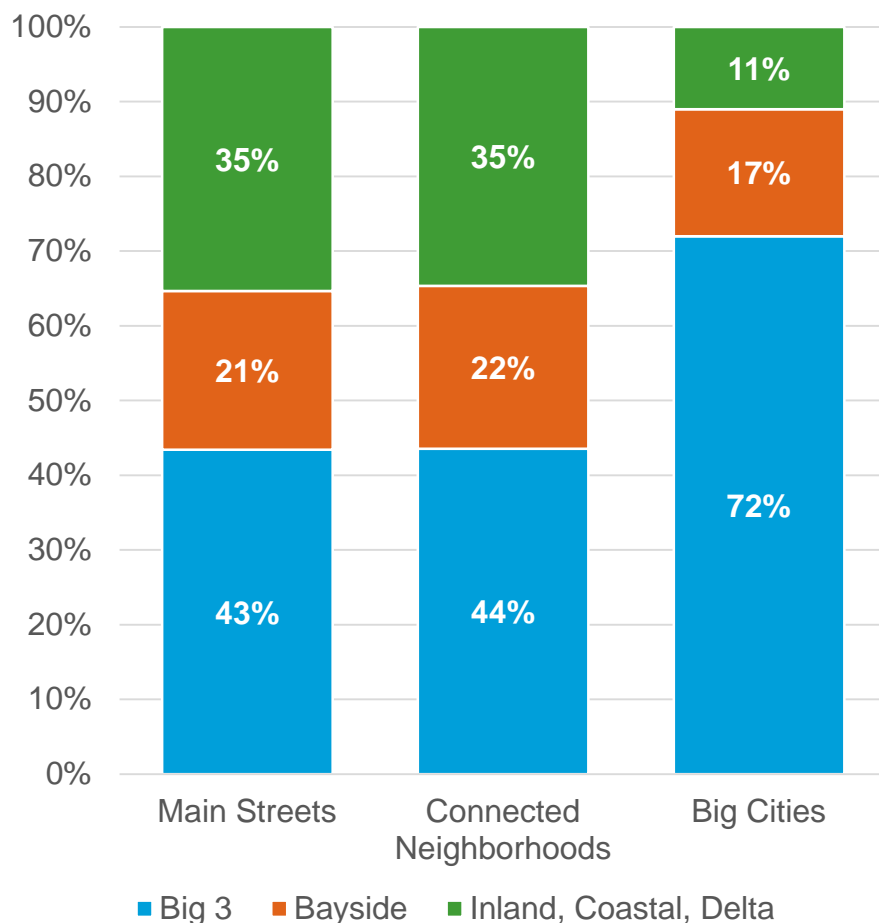
**Connected  
Neighborhoods**



**Big Cities**

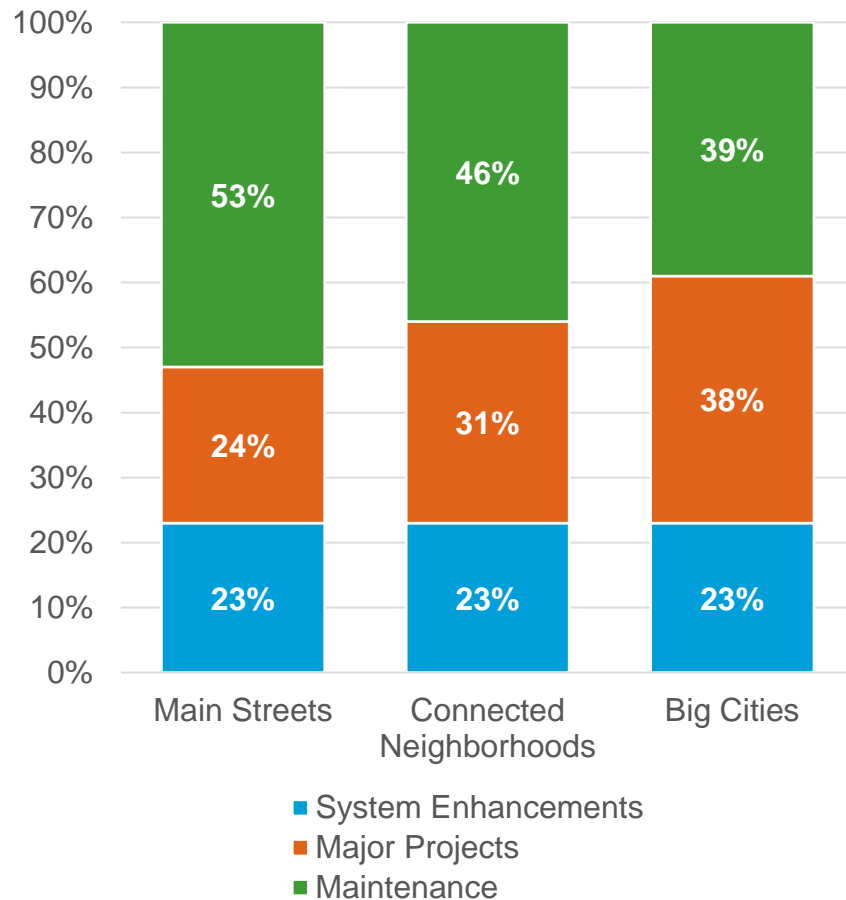


Share of Total Household  
Growth, 2040



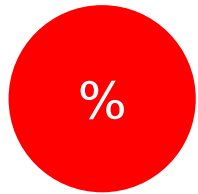
- Main Streets- over a third of housing growth in inland, coastal, delta areas. Places most growth in high VMT parts of region, relative to other scenarios
- Big Cities- places most growth in big 3 cities and neighbors
- Connected Neighborhoods- places most growth in PDAs compared to other scenarios.

## Share of Discretionary Investments

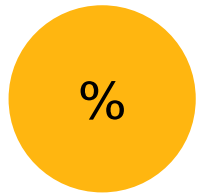


- Main Streets- over half the investment on state of good repair. More limited investment on major projects, especially highway capacity and express lanes
- Big Cities- makes largest investment in major capital projects, especially core capacity transit expansion
- Connected Neighborhoods- balanced focus on transit and highway efficiency improvements and state of good repair

Symbols used in summary tables shown below:



*performance moving in wrong direction from target*








*performance moving in right direction, but falls short of target achievement*








*target achieved*

# TARGETS - SUMMARY




Goal	TARGET		No Project	Scenario 1	Scenario 2	Scenario 3
 Climate Projection	1 Reduce per-capita CO <sub>2</sub> emissions*	-15%	-3%	-15%	-18%	-20%
 Adequate Housing	2 House the region's population	100%	100%	100%	100%	100%
 Healthy and Safe Communities	3 Reduce adverse health impacts	-10%	-0%	-0%	-1%	-1%
 Open Space and Agricultural Preservation	4 Direct development within urban footprint	100%	71%	77%	100%	100%
 Equitable Access	5 Decrease H+T share for lower-income households	-10%	+15%	+13%	+13%	+13%

\* = includes Climate Initiatives in all three scenarios (-11.2% per-capita GHG reduction)

# TARGETS - SUMMARY

Goal	TARGET		No Project	Scenario 1	Scenario 2	Scenario 3
 Equitable Access	<b>6</b> Increase share of affordable housing	+15%	-0%	-0%	+1%	+0%
 Equitable Access	<b>7</b> Do not increase share of households at risk of displacement	+0%	+20%	+9%	+8%	+15%
 Economic Vitality	<b>8</b> Increase share of jobs accessible in congested conditions	+20%	-3%	-1%	-1%	-1%
 Economic Vitality	<b>9</b> Increase jobs in middle-wage industries	+38%	+43%	+43%	+43%	+43%
 Economic Vitality	<b>10</b> Reduce per-capita delay on freight network	-20%	+27%	-24%	-21%	-38%

# TARGETS - SUMMARY

Goal	TARGET	No Project	Scenario 1	Scenario 2	Scenario 3
 Transportation System Effectiveness	<b>11</b> Increase non-auto mode share	+10%	+1%	+2%	+3%
 Transportation System Effectiveness	<b>12</b> Reduce vehicle O&M costs due to pavement conditions	-100%	+57%	-65%	-7%
 Transportation System Effectiveness	<b>13</b> Reduce per-rider transit delay due to aged infrastructure	-100%	-56%	-76%	-77%

- All three scenarios achieve the greenhouse gas target
- The public health target remains out of reach in all scenarios
- Strict urban growth boundaries are effective to focus growth within existing urban footprint
- Significant equity challenges exist across all three scenarios
- Goods movement will benefit from regional investment and smart land use decisions
- Increasing funding to “fix it first” leads to smoother streets and more reliable transit

## Potential approaches to achieve targets:

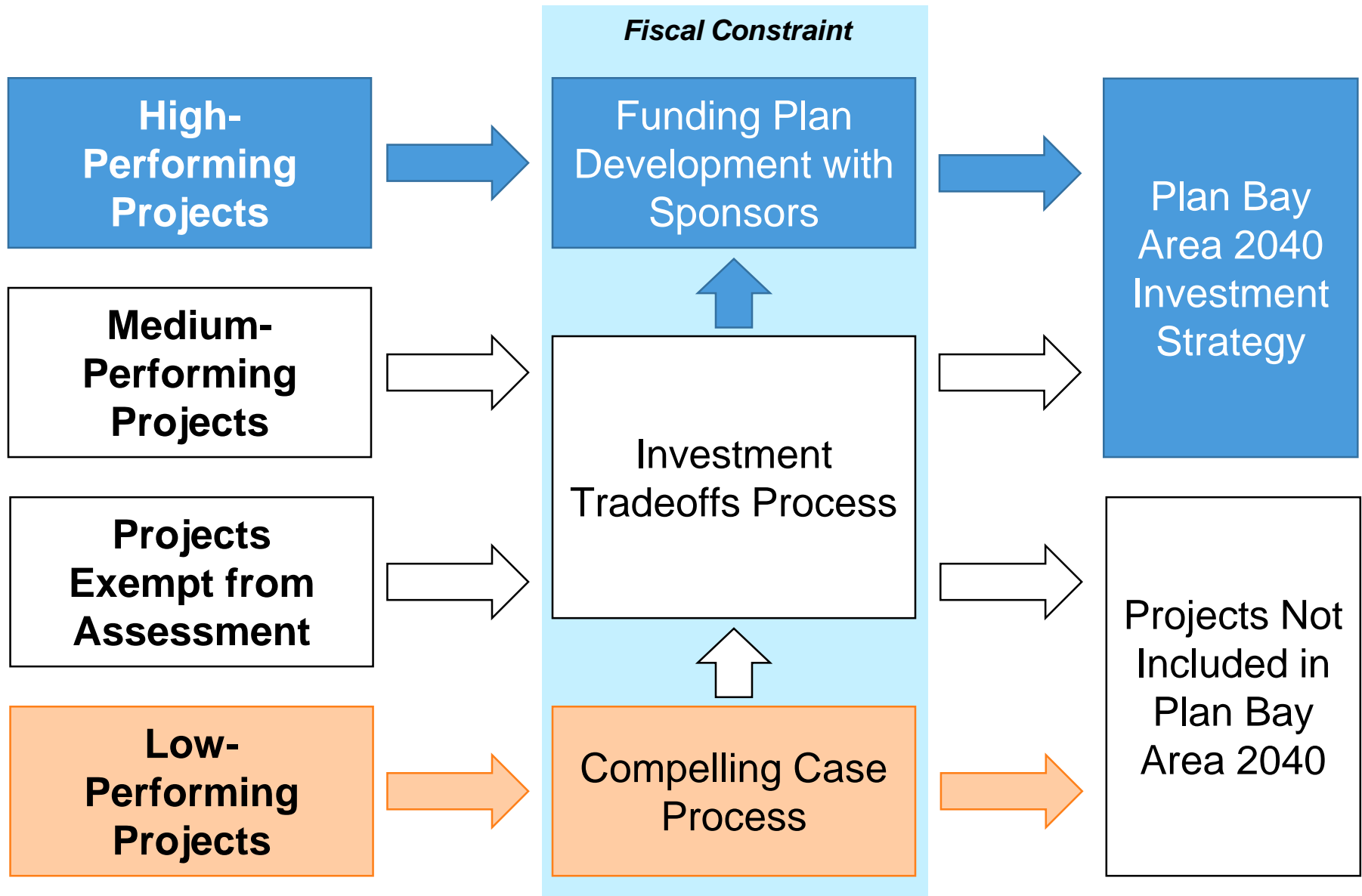
- Health: much more aggressive bike/ped investments to increase physical activity; wide-scale deployment of autonomous vehicles to reduce crashes (off-model/safety benefits)
- Equity: focus growth in communities with minimal lower-income population today; significant increase of housing subsidies (rental subsidies; additional deed-restricted unit production); understand and test the impacts of additional anti-displacement policies



## Potential approaches to achieve targets:

- Access to Jobs/Non-Auto Mode Share: transformative transportation investments (complete regional bus/carpool lane network; high-speed transit expansion across the region); much more aggressive bike/ped investments (off-model); and comprehensive housing and job growth in job centers
- State of Good Repair: greater funding for local streets and roads to bring all streets to at least fair conditions; greater funding for transit assets to replace assets besides vehicles and guideways

# DEVELOPING A PREFERRED SCENARIO



# PROJECT PERFORMANCE ASSESSMENT

Plan  
Bay Area  
2040

**High** benefit-cost ratio and **medium** targets score

- Plan Bay Area:  $B/C \geq 10$  and  $TS \geq 2$
- **Plan Bay Area 2040:  $B/C \geq 7$  and  $TS \geq 3$**



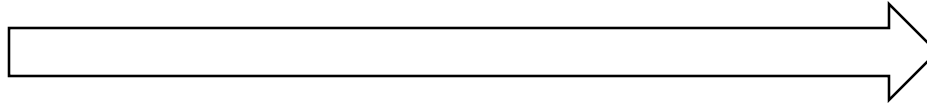
**Medium** benefit-cost ratio and **high** targets score

- Plan Bay Area:  $B/C \geq 5$  and  $TS \geq 6$
- **Plan Bay Area 2040:  $B/C \geq 3$  and  $TS \geq 7$**



**High-  
Performing  
Project**

All other projects



**Medium-  
Performing  
Project**

**Low** benefit-cost ratio or **low** targets score

- Plan Bay Area:  $B/C < 1$  or  $TS \leq -1$
- **Plan Bay Area 2040:  $B/C < 1$  or  $TS < 0$**



**Low-  
Performing  
Project**

PLAN BAY AREA 2040  
PROJECTS BREAKDOWN

**10**  
high-performers

**41**  
medium-performers

**18**  
low-performers

- 1 Rail Maintenance
- 2 Bus Maintenance
- 3 Columbus Day Initiative
- 4 Downtown San Francisco Congestion Pricing
- 5 Treasure Island Congestion Pricing
- 6 BART to Silicon Valley: Phase 2
- 7 Caltrain Modernization + Downtown Extension
- 8 BART Metro Program
- 9 San Pablo BRT
- 10 Geary BRT
- 11 El Camino BRT



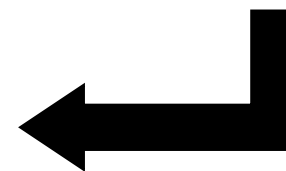
PLAN BAY AREA 2040  
PROJECTS BREAKDOWN

**11**  
high-performers

**40**  
medium-performers

**18**  
low-performers

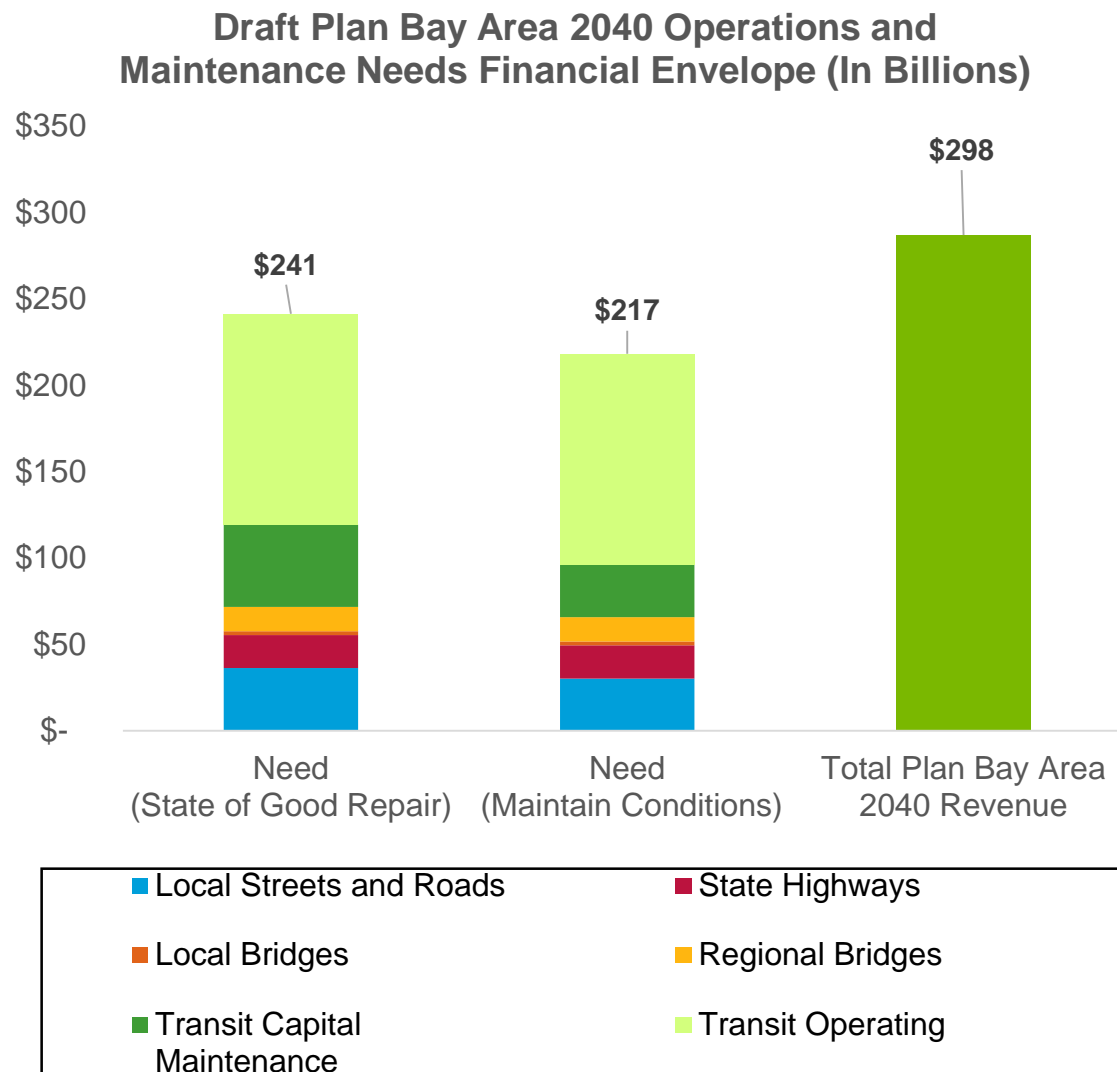
## Compelling Case Framework



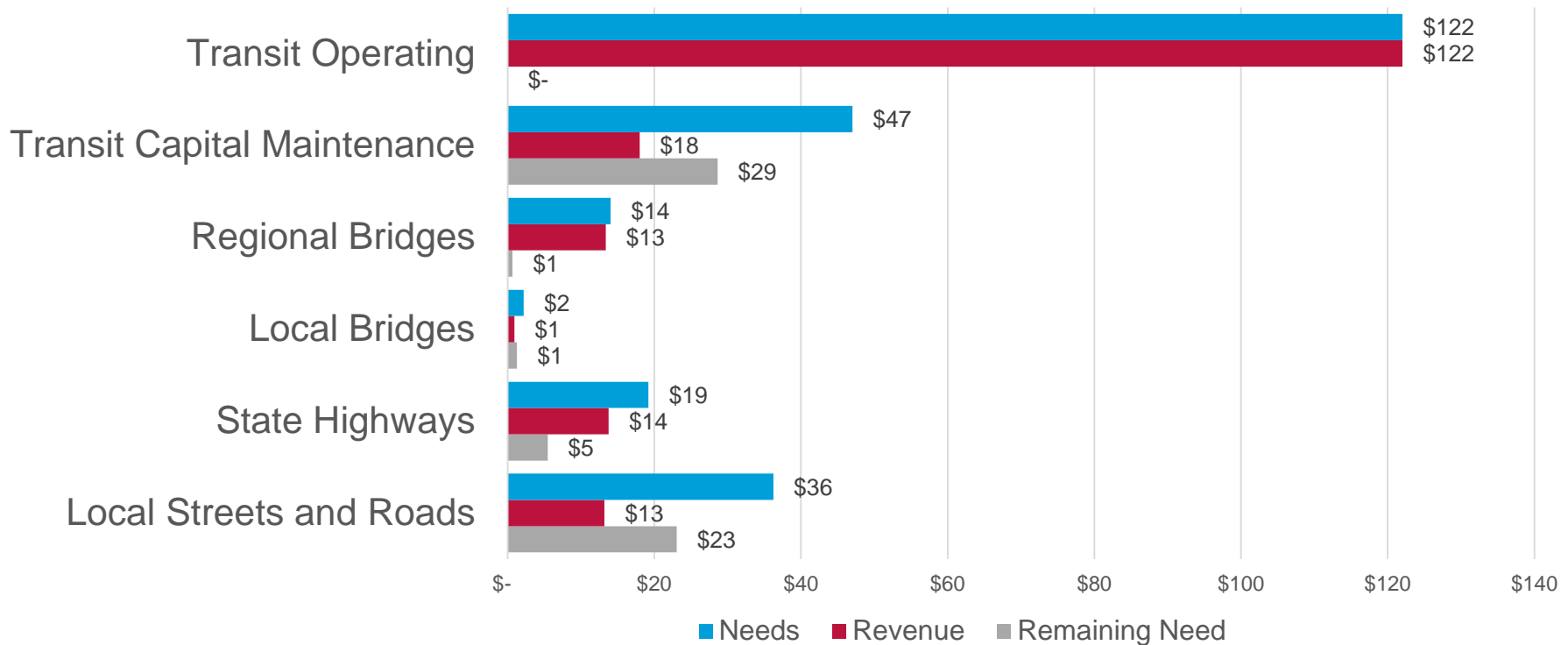
CATEGORY 1	CATEGORY 2
Benefits Not Captured by the Travel Model	Federal Requirements
<ul style="list-style-type: none"> <li>a) interregional or recreational corridor</li> <li>b) provides significant goods movement benefits</li> <li>c) project benefits accrue from reductions in weaving, transit vehicle crowding, or other travel behaviors not well represented in the travel model</li> <li>d) enhances system performance based on complementary new funded investments</li> </ul>	<ul style="list-style-type: none"> <li>a) cost-effective means of reducing CO<sub>2</sub>, PM, or ozone precursor emissions</li> <li>b) improves transportation mobility/reduces air toxics and PM emissions in communities of concern</li> </ul>

# REGIONAL NEEDS SUMMARY

- State of Good Repair Need = \$241 Billion
- Maintain Existing Conditions Need = \$217 Billion
- Total Draft Revenue Forecast for Plan Bay Area 2040 = \$298 Billion
- Approximately 16% (~\$47 billion) of Plan revenue is expected to be “discretionary”



## Plan Bay Area 2040 24-Year Transit Operating & State of Good Repair Capital Maintenance Needs (In Billions)



- Total “State of Good Repair” Remaining Need = \$59 Billion (shown above)
- Total “Maintain Existing Conditions” Remaining Need = \$36 Billion

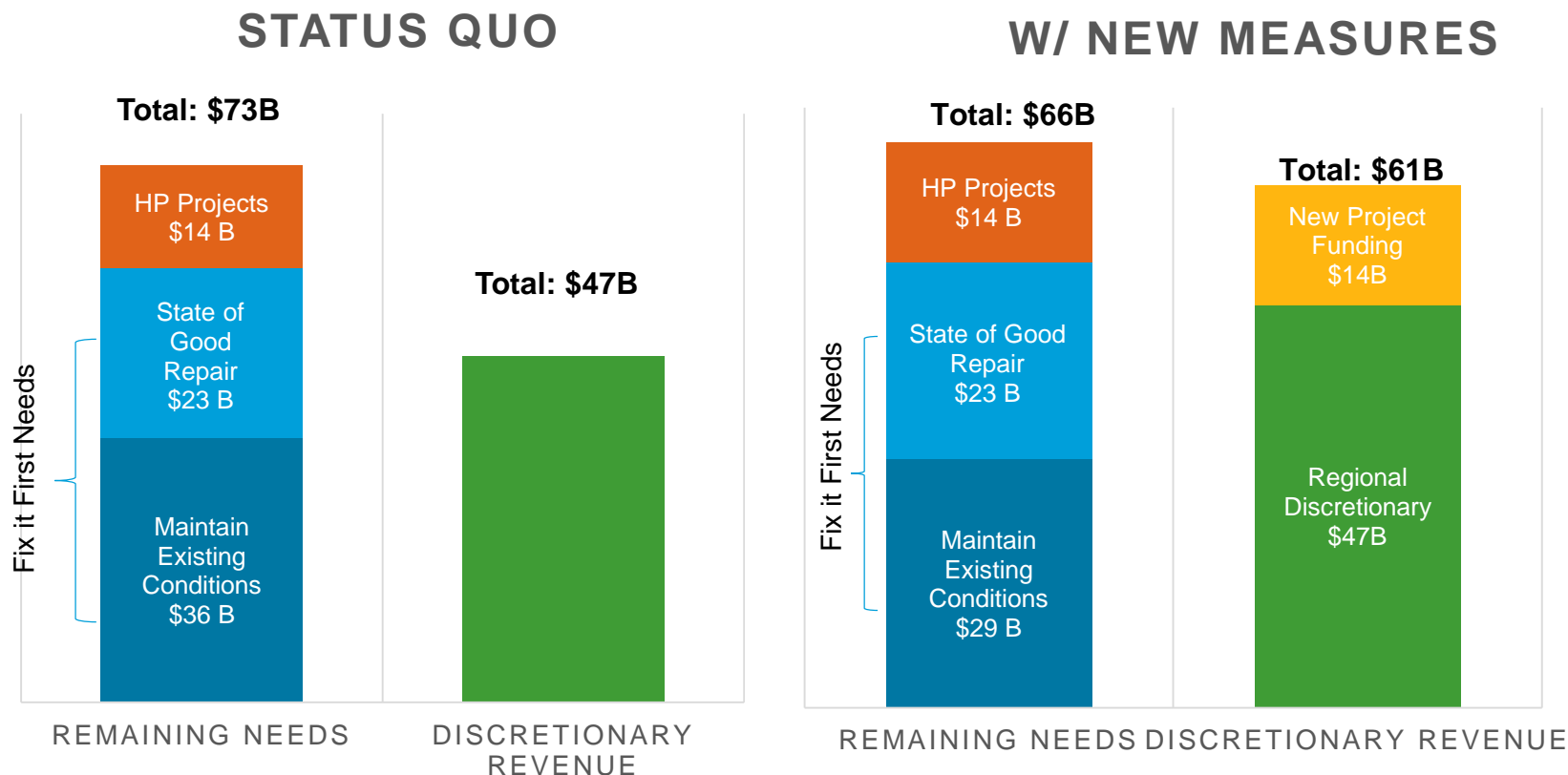
Total Plan Revenues: \$298 Billion

Regional Discretionary Funding  
available: ~\$47 Billion

- Discretionary funding Required to Maintain Existing Conditions = \$36 Billion
- Discretionary funding required for High-Performing Projects = ~\$14 Billion



- Potential funding from upcoming ballot initiatives = \$21 Billion
  - Would reduce State of Repair remaining need by \$7 Billion
  - Additional funding for new projects/programs = \$14 Billion



- Open Houses / Public Workshops
- Develop the Preferred Scenario
- Environmental Assessment (EIR)
  - Posted Notice of Preparation (NOP) on May 16
  - 3 scoping sessions beginning in late May and into early June

# Thank You





TO: Planning Committee

DATE: May 6, 2016

FR: Executive Director

RE: Plan Bay Area 2040: Scenario Evaluation

### **Background**

MTC and ABAG have developed and evaluated three alternative land use and transportation scenarios illustrating the effects that different housing, land use and transportation strategies have on our adopted Plan Bay Area (PBA) 2040 goals and performance targets. This evaluation will inform the development of the region's "preferred scenario," which will incorporate some of the best aspects of the three scenarios and form the framework for PBA 2040.

### **Alternative Scenarios Descriptions**

The three scenarios describe different alternatives for how expected growth in population, jobs and housing units might be distributed, and the types of transportation investments needed to support these growth patterns. While the scenarios vary in terms of the intensity of development patterns and transportation investments, they maintain the same regional forecasts for jobs, population, households and transportation revenues. The scenarios are described in more detail in **Attachment 1**.

### **Land Use Strategies**

ABAG forecasts an additional 1.3 million jobs, 2.4 million people and therefore the need for approximately 820,000 housing units between 2010 and 2040. The scenarios vary in terms of the different combinations of strategies that can be used to accommodate this future growth. The strategies can affect land use patterns by changing a community's capacity for new development or incentivizing a particular type or location of growth. Each scenario builds on the Bay Area's existing land use pattern and transportation network, while also taking into account local plans for growth, historical trends, the results of the most recent PDA assessment. **Attachment 1** also includes the specific strategies included under each scenario.

The differing land use strategies work to vary the intensity and location of the future growth of housing and jobs. The tables in **Attachment 2** highlight the growth distribution within three distinct geographic regions:

- Big 3 (the region's three largest cities – San Jose, San Francisco, and Oakland)
- Bayside (generally cities directly adjacent to San Francisco Bay – e.g., Hayward, San Mateo, and Richmond)
- Inland, Coastal, and Delta (generally cities just outside of Bayside – e.g., Walnut Creek, Dublin, Santa Rosa, Antioch, Brentwood, Dixon)

### **Transportation Strategies**

PBA 2040 forecasts \$299 billion of federal, state, regional and local transportation revenues over the 24-year period. Of this amount, approximately \$44 billion (15% of total PBA revenues) is assumed to be discretionary. The three scenarios vary in terms of how this \$44 billion is distributed across maintenance, system enhancement and major capital projects. This distribution is shown in **Attachment 3**.

Each of the scenarios assumes a varying distribution of funding for major projects versus maintenance and to roads versus public transit. In the Main Streets scenario (scenario 1), over half of all discretionary investments are directed towards state of good repair, fully funding state highway pavement needs and moving the region much closer to a state of good repair on local streets. Major projects are more focused on highway improvements – which feature lower operating and maintenance costs than public transit – and thus constitute a smaller share of the distribution. In Connected Neighborhoods (scenario 2) and Big Cities (scenario 3), there are significantly greater needs for transit frequency increases and new core capacity transit lines, resulting a smaller share of funding going towards maintenance (in particular, highway and local streets maintenance).

The three scenarios maintain a consistent level of investment in system enhancements, comprising several discretionary funding sources including One Bay Area Grant, Regional Transportation Improvement Program and other sources for active transportation and goods movement. MTC and the congestion management agencies are working to develop more specific projects and program categories for the preferred scenario.

**Attachment 4** describes the types of major projects included under each scenario. These comprise capacity-adding projects above \$100 million analyzed in the PBA 2040 project performance assessment. While major projects only comprise 24 to 38 percent of total transportation investment across the three scenarios, these investments typically have the most pronounced impact on a scenario alternative's performance.

#### **Performance Targets Overview**

After six months of public engagement and deliberation, MTC and ABAG adopted goals and performance targets in fall 2015, establishing the foundation of PBA 2040. Each of the 13 performance targets compares baseline conditions with conditions in the future to understand better whether the region is expected to move in the right direction or the wrong direction under each scenario. Oftentimes, the targets are aspirational in nature, making them quite difficult to achieve. For example, a given scenario may implement a suite of policy measures to address a particular issue, but available tools and funding remain too constrained to move the needle in the right direction. Results<sup>1</sup> for the performance targets for all seven goals are included in **Attachment 5**.

Only two targets are mandatory for the region to achieve under Senate Bill 375 – Climate Protection and Adequate Housing. The remaining 11 targets are voluntary, meaning that the adopted PBA does not have to achieve them. That said, the targets provide a useful reference point for policymakers and the public to consider when weighing the pros and cons of each scenario. As these are draft scenarios, there will be future opportunities to refine the strategies incorporated into a preferred scenario – and perhaps move closer to achieving some of the performance targets.

#### **Key Findings from Performance Targets Results**

- **While all three scenarios achieve the greenhouse gas target, lower levels of driving in Connected Neighborhoods and Big Cities result in stronger performance.** Compared to the more dispersed land use pattern in Main Streets, these two scenarios have higher non-auto mode shares that yield additional greenhouse gas benefits and build upon the foundation of the Climate Initiative Program (which is included in all three scenarios).

---

<sup>1</sup> Note that scenario performance target results shown in the attachment remain in draft form. Select target results reflect year 2035 performance, while the final target results available later this year will reflect the adopted horizon year of 2040.

- **The region's ambitious public health target remains stubbornly out of reach across all scenarios.** Much higher levels of walking and bicycling, combined with significant reductions in traffic collisions, would be needed to improve residents' health outcomes. Slightly stronger performance in Connected Neighborhoods and Big Cities indicates that a denser land use pattern better supports active transportation, and therefore public health outcomes, in the region.
- **Strict urban growth boundaries are effective in focusing growth within the existing urban footprint.** Connected Neighborhoods and Big Cities nearly achieve the Open Space and Agricultural Preservation target due to their inclusion of strict urban growth boundaries, while No Project and Main Streets fare worse on the target.
- **Significant housing affordability challenges exist in all three scenarios.** Challenges related to affordability and displacement risk increase in all three scenarios, with No Project and Big Cities resulting in the greatest adverse impacts. Despite various housing and land use strategies included across all the scenarios to make the region more affordable, housing costs continue to rise, reflecting an increasingly expensive Bay Area housing market.
- **Goods movement will benefit from regional transportation investments and smart land use decisions.** Main Streets' investments in regional express lanes helps to reduce congestion on major truck corridors. Alternatively, Connected Neighborhoods and Big Cities succeed in improving goods movement by focusing growth in the urban core and encouraging use of non-auto modes through new transportation options.
- **Increasing funding to "Fix It First" leads to much smoother streets and more reliable transit.** Main Streets' funding brings state highway pavement to ideal conditions while improving local streets as well, saving residents a significant amount of money each year. Big Cities achieves the greatest reduction in transit system breakdowns, thanks to its higher funding level for transit maintenance compared to the other scenarios.

#### **Other Policies and Strategies**

PBA 2040's scenario process uses only a small set of land use and transportation strategies to show different options for future land use patterns and the transportation investments and policies needed to support these distributions of future housing and employment growth. The combinations of strategies in the scenarios are included to enable a discussion about regional priorities, and do not represent all of the potential public policy interventions that regional, state, or local governments could use to accomplish the Plan's goals. For instance, the specific structure of many potential state and local tax and regulatory policies falls largely outside the analytic scope of the scenario process, and requires a separate, more robust public policy analysis to determine costs and benefits. Once the preferred scenario is adopted, the final PBA 2040 document will describe a wider range of policies to support the Plan's goals.

#### **Environmental Assessment**

A programmatic Environmental Impact Report (EIR) will be prepared for PBA 2040, with the adoption of the preferred scenario as the basis for the California Environmental Quality Act (CEQA) "project." This environmental assessment fulfills the requirements of the CEQA and is designed to inform decision-makers, responsible and trustee agencies, and Bay Area residents of the range of potential environmental impacts that could result from implementation of the proposed Plan. This EIR will also analyze a range of reasonable alternatives to the proposed project that could feasibly attain most of PBA 2040's basic project objectives and would avoid or substantially lessen any of the significant environmental impacts. The three scenarios, as previously discussed, will be the basis for the initial CEQA alternatives.

Agency and public comments on the scope of the environmental analysis and project alternatives will be solicited through the Notice of Preparation to be issued in mid May 2016, for a 30-day review period and at three regional scoping meetings to be held starting in late May and into early June 2016.

#### **Next Steps**

This release marks the beginning of a public process to review and comment on the alternative scenarios. MTC and ABAG will hold a series of public workshops in late May and into mid-June to discuss tradeoffs and gauge support among the land use scenarios and supportive transportation programs and projects. Input received will help us develop the region's draft preferred scenario (land use distribution and transportation investment strategy) for adoption by MTC and ABAG in September 2016. The draft preferred scenario will be subject to environmental review and other analyses throughout the remainder of 2016. PBA 2040 is slated for final adoption in summer 2017.

  
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Steve Heminger

#### **Attachments:**

- **Attachment 1:** Scenario Descriptions and Strategies
- **Attachment 2:** Household Growth by Scenario; Employment Growth by Scenario; and Growth in PDAs by Scenario Tables
- **Attachment 3:** Summary of Discretionary Investments by Project Type by Scenario
- **Attachment 4:** Major Transportation Investments by Scenario
- **Attachment 5:** Goals and Performance Targets & Draft Targets Evaluation Scorecard
- **Attachment 6:** Presentation

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# Major Projects by Scenario








The table below describes how major transportation projects are organized across the three scenarios. This list reflects the majority of projects analyzed in the Plan Bay Area 2040 project performance assessment, which is only a portion of total transportation investment in each scenario. In July, the Commission will consider a draft preferred scenario with a recommended list of investments.

	Class	System	ID	Name	Scenario 1	Scenario 2	Scenario 3
1	Highways	Exurban/Interregional Expansion	411	SR-4 Auxiliary Lanes - Phases 1 + 2 (Concord to Pittsburg)	1		
2	Highways	Exurban/Interregional Expansion	404	SR-4 Widening (Antioch to Discovery Bay)	1		
3	Highways	Exurban/Interregional Expansion	401	TriLink Tollway + Expressways (Brentwood to Tracy/Altamont Pass)	1		
4	Highways	Interchange Expansion	406	I-680/SR-4 Interchange Improvements	1		
5	Highways	Interchange Expansion	409	I-680/SR-4 Interchange Improvements + HOV Direct Connector	1		
6	Highways	Interchange Expansion	601	I-80/I-680/SR-12 Interchange Improvements	1		
7	Highways	Intraregional Expansion (Bottlenecks/Relievers)	519	Lawrence Freeway	1		
8	Highways	Intraregional Expansion (Bottlenecks/Relievers)	211	SR-262 Widening (I-680 to I-880)	1	2	
9	Highways	Intraregional Expansion (Bottlenecks/Relievers)	209	SR-84 Widening + I-680/SR-84 Interchange Improvements (Livermore to I-680)	1	2	
10	Highways	Intraregional Expansion (Bottlenecks/Relievers)	901	US-101 Marin-Sonoma Narrows HOV Lanes – Phase 2	1	2	
11	Other	Express Lanes	1302	MTC Express Lane Network	1		
12	Other	Express Lanes	502	VTA Express Lane Network	1		
13	Other	Express Lanes	201	ACTC Express Lane Network	1		
14	Other	Express Lanes	101	US-101 Express Lanes (San Francisco + San Mateo Counties)	1		
15	Other	ITS	210	I-580 ITS Improvements	1		
16	Other	ITS	1301	Columbus Day Initiative	1	2	3-mod
17	Other	Other	202	East-West Connector (Fremont to Union City)	1		
18	Other	Other	605	Jepson Parkway (Fairfield to Vacaville)	1		
19	Other	Pricing	306	Downtown San Francisco Congestion Pricing (Toll + Transit Improvements)		2	3
20	Other	Pricing	302	Treasure Island Congestion Pricing (Toll + Transit Improvements)		2	3
21	Local Transit	AC Transit	206	AC Transit Service Frequency Improvements		2	3
22	Local Transit	AC Transit	207	San Pablo BRT (San Pablo to Oakland)		2	3
23	Local Transit	Muni	301	Geary BRT	1	2	3
24	Local Transit	Muni	311	Muni Forward Program	1	2	3
25	Local Transit	Muni	304	Southeast Waterfront Transportation Improvements (Hunters Point Transit Center + New Express Bus Services)			3
26	Local Transit	Muni	303	Better Market Street		2	3
27	Local Transit	Muni	312	19th Avenue Subway (West Portal to Parkmerced)			3
28	Local Transit	Muni	104	Geneva-Harney BRT + Corridor Improvements			3
29	Local Transit	Muni	313	Muni Service Frequency Improvements			3
30	Local Transit	Other Local	903	Sonoma County Service Frequency Improvements	1	2	



31	Local Transit	Other Local	204	Broadway Streetcar			3
32	Local Transit	VTA	505	Capitol Expressway LRT – Phase 2 (Alum Rock to Eastridge)	2		3
33	Local Transit	VTA	522	VTA Service Frequency Improvements (10-Minute Frequencies)	2		3
34	Local Transit	VTA	506	El Camino Real BRT (Palo Alto to San Jose)	2		3
35	Local Transit	VTA	507	Vasona LRT – Phase 2 (Winchester to Vasona Junction)			3
36	Local Transit	VTA	510	Downtown San Jose Subway (Japantown to Convention Center)			3
37	Local Transit	VTA	513	North Bayshore LRT (NASA/Bayshore to Google)			3
38	Local Transit	VTA	504	Stevens Creek LRT			3
39	Local Transit	VTA	515	Tasman West LRT Realignment (Fair Oaks to Mountain View)			3
40	Local Transit	VTA	516	VTA Express Bus Frequency Improvements			3
41	Regional Transit	BART	501	BART to Silicon Valley – Phase 2 (Berryessa to Santa Clara)	2		3
42	Regional Transit	BART	1001	BART Metro Program (Service Frequency Increase + Bay Fair Operational Improvements + SFO Airport Express Train)	2		3
43	Regional Transit	BART	203	Irvington BART Infill Station	2		3
44	Regional Transit	Caltrain	1102	Caltrain Modernization - Phase 1 + Phase 2 (Electrification + Service Frequency Increase + Capacity Expansion)	2		3
45	Regional Transit	Caltrain	1101	Caltrain Modernization - Phase 1 (Electrification + Service Frequency Increase)	2		3
46	Regional Transit	Caltrain	307	Caltrain Modernization - Phase 1 (Electrification + Service Frequency Increase) + Caltrain to Transbay Transit Center	2		3
47	Regional Transit	Ferry	1206	Alameda Point-San Francisco Ferry			3
48	Regional Transit	Ferry	1202	Oakland-Alameda-San Francisco Ferry Frequency Improvements			3
49	Regional Transit	Ferry	1203	Vallejo-San Francisco + Richmond-San Francisco Ferry Frequency Improvements	2		3
50	Regional Transit	Ferry	1204	Berkeley-San Francisco Ferry			3
51	Regional Transit	Regional Express Bus	9999	Suburban Local Bus Service Frequency Improvements (concept)	1	2	
52	Regional Transit	Regional Express Bus	604	Solano County Express Bus Network	1		
53	Regional Transit	Regional Express Bus	308	San Francisco Express Bus Network			3
54	Regional Transit	Regional Express Bus	205	Express Bus Bay Bridge Contraflow Lane			3
55	Regional Transit	Regional Express Bus	801	Golden Gate Transit Frequency Improvements			3

# Draft Performance Target Results

Goal		Target*	%	No Project	Main Streets	Connected Neighborhoods	Big Cities
	Climate Protection	<b>1</b> Reduce per-capita CO2 emissions	-15%	-3%	-15%	-18%	-20%
	Adequate Housing	<b>2</b> House the region's population	100%	100%	100%	100%	100%
	Healthy and Safe Communities	<b>3</b> Reduce adverse health impacts	-10%	-0%	-0%	-1%	-1%
	Open Space and Agricultural Preservation	<b>4</b> Direct development within urban footprint	100%	71%	71%	100%	100%
	Equitable Access	<b>5</b> Decrease H+T share for lower-income households	-10%	+15%	+13%	+13%	+13%
		<b>6</b> Increase share of affordable housing	+15%	-0%	-0%	+1%	+0%
		<b>7</b> Do not increase share of households at risk of displacement	+0%	+20%	+9%	+8%	+15%
	Economic Vitality	<b>8</b> Increase share of jobs accessible in congested conditions	+20%	-3%	-1%	-1%	-1%
		<b>9</b> Increase jobs in middle-wage industries	+38%	+43%	+43%	+43%	+43%
		<b>10</b> Reduce per-capita delay on freight network	-20%	+27%	-24%	-21%	-38%
	Transportation System Effectiveness	<b>11</b> Increase non-auto mode share	+10%	+1%	+2%	+3%	+3%
		<b>12</b> Reduce vehicle O&M costs due to pavement conditions	-100%	+57%	-65%	-7%	+20%
		<b>13</b> Reduce per-rider transit delay due to aged infrastructure	-100%	-56%	-76%	-77%	-83%

Notes: \*Complete target language as adopted by the Commission and ABAG Executive Board can be found at <http://planbayarea.org/the-plan/plan-details/goals-and-targets.html>; target language shown above is summarized for brevity. Please note that scenario performance results remain in draft form until all scenarios are run for analysis year 2040 later this year.

Symbols used in summary tables:



Performance moving in wrong direction from target



Performance moving in right direction, but falls well short of target



Target achieved

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# Scenario #1: Main Streets

## Description

Scenario 1 targets future population and employment growth to the downtowns of every city in the Bay Area to foster a region of moderately-sized, integrated town centers. This scenario emphasizes a dispersed distribution of households and jobs and limited growth in San Jose, San Francisco, and Oakland. As a result, a number of the region's cities would experience significant growth and different types of development compared to existing patterns. As in the other scenarios, most growth will be in locally-identified PDAs, but this scenario offers the most dispersed growth pattern, meaning that cities outside the region's core are likely to see higher levels of growth. Within cities, more growth will be accommodated outside of PDAs than in other scenarios, with an emphasis on high opportunity areas that have higher levels of educational opportunities, economic mobility, and neighborhood services.

To accommodate this growth, investments, including resources for affordable housing, will be dispersed across PDAs, Transit Priority Areas (TPAs), other transit-proximate locations outside PDAs, and underutilized transportation corridors across the region. This scenario comes closest to resembling a traditional suburban pattern, with an increase in greenfield development to accommodate the dispersed growth pattern. While an emphasis on multi-family and mixed-use development in downtowns will provide opportunities for households of all incomes to live near a mix of jobs, shopping, services, and other amenities, this scenario also assumes that many people will drive significant distances by automobile to get to work.

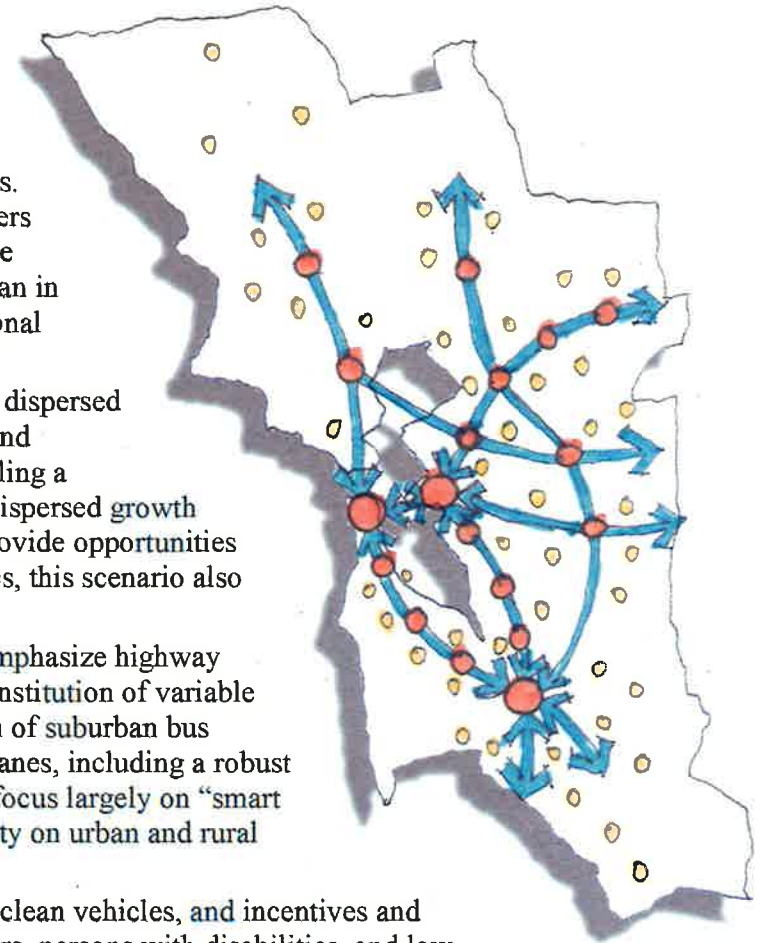
To support this scenario's dispersed growth pattern, transportation investment priorities will emphasize highway strategies, including the expansion of high-occupancy toll lanes on all regional highways, the institution of variable pricing, and highway widening at key bottlenecks. The scenario will also emphasize expansion of suburban bus service. Bicycle and pedestrian infrastructure will create a network of regional trails and bike lanes, including a robust regional network of bike sharing. To support industry and goods movement, the scenario will focus largely on "smart operations and deliveries"—technology and operations to reduce congestion and increase safety on urban and rural roads.

To reach our climate goals, this scenario sees heavy investments in technology advancements, clean vehicles, and incentives and pursues near-zero and zero emissions strategies wherever feasible. The mobility needs of seniors, persons with disabilities, and low-income communities will be addressed most centrally by "mobility management" solutions to link individuals to travel options that meet their specific needs, as well as the provision of demand-responsive strategies by the public, non-profit, and private sectors.

## Land Use Strategies

In this scenario, land use strategies emphasize a more dispersed growth pattern. Compared to the other scenarios, cities outside the region's core are likely to see higher levels of growth and, within cities, more growth will be accommodated outside PDAs, with an emphasis on high opportunity areas. Specific strategies include:

- Zoning: upzoning of select suburban areas to increase residential and commercial development capacity.



- Open space: allows urban growth boundaries to expand faster than expected (by 565 square miles) compared to past trends to accommodate more dispersed growth.
- Reduce parking minimums: in PDAs along regional rail transit (such as BART, Caltrain, Amtrak, Altamont Corridor Express, and SMART).
- Affordable housing: encourages more affordable housing choices through the following strategies:
  - Inclusionary zoning- assumes a low level of inclusionary units (deed-restricted) with a proportion of 5% in high-opportunity jurisdictions.
  - Assesses fees on commercial development in high VMT areas to subsidize deed-restricted housing.
  - Assumes imposition of other tax policies to subsidize over \$500 million annually of affordable units in PDAs.

### **Transportation Strategies**

Investments to increase the frequency of suburban bus operations, manage travel demand, and expand the capacity of our highway network will be critical to enable this pattern of growth. Since job growth is more dispersed throughout the region, major public transit expansions or extensions such as fixed-guideway extensions and core capacity enhancements will be a lower priority. Strategies include the following (see **Attachment 2** for specific major investments):

- Transit service expansion: Pursue strategic transit investments, especially bus improvements, to provide access to increasingly dispersed job centers.
- Express lanes: Leverage technological advances to use roadway capacity more efficiently, while emphasizing freeway-focused pricing like Express Lanes / Managed Lanes as complementary strategies.
- Highway capacity: Invest in strategic highway capacity increases to accommodate this scenario's growth pattern.
- State of good repair: Emphasize investment into both state of good repair (particularly for highways and local streets across all nine counties).
- Climate Strategies: includes technological advancements (e.g. clean vehicles) and incentive programs to encourage travel options that help meet GHG emissions reduction targets.



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## Scenario #2: Connected Neighborhoods

### Description

Scenario 2 targets future population and employment growth to locally-identified PDAs along major corridors, with an emphasis on growth in medium-sized cities with access to the region's major rail services, such as BART and Caltrain. Outside the PDAs, this scenario sees modest infill development, especially in high opportunity areas. As these communities grow over the next 25 years, compact development and strategic transportation investments will provide residents and workers access to a mix of housing, jobs, shopping, services, and amenities in proximity to transit traditionally offered by more urban environments. Resources for affordable housing will be dispersed across the Bay Area, with some concentration in PDAs to support the development of affordable housing where the most population and employment growth is targeted.

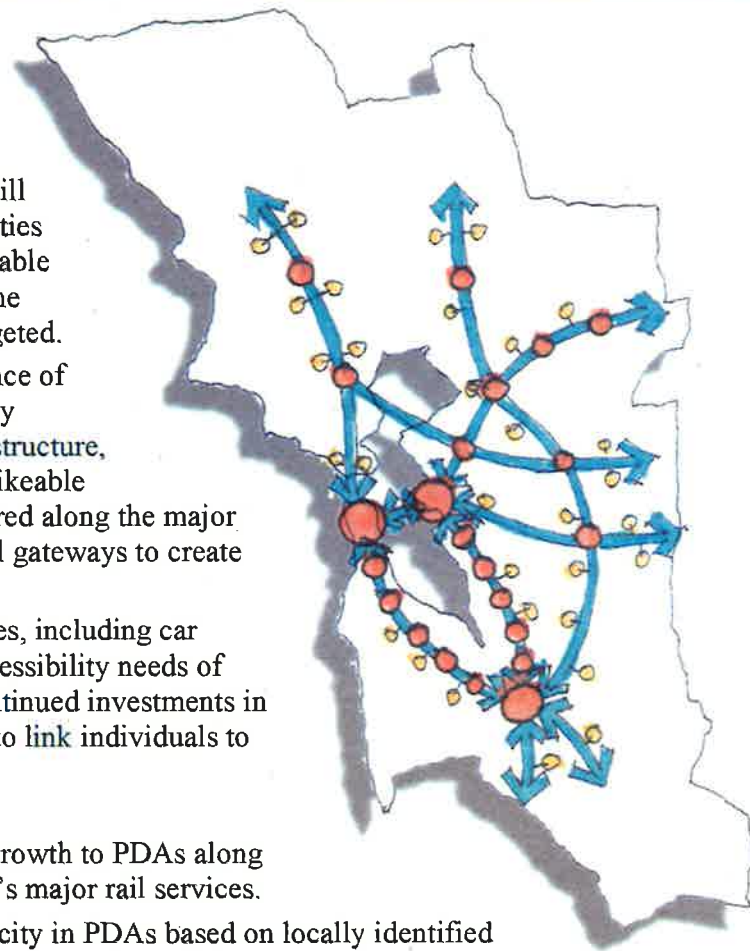
To support this scenario's growth pattern, transportation investments will prioritize maintenance of existing infrastructure. The region's transit system will be modernized and expanded along key corridors to improve commutes and add capacity. Investments in bicycle and pedestrian infrastructure, including the regional bike sharing network, will support the creation of more walkable and bikeable downtowns. To support industry and goods movement, particularly the industrial lands clustered along the major corridors, this scenario will support environmentally sustainable investments at our key global gateways to create local jobs, protect the community, and attract international commerce.

To protect the climate, this scenario prioritizes a number of innovative transportation initiatives, including car sharing and near-zero and zero emission goods movement technologies. The mobility and accessibility needs of seniors, persons with disabilities, and low-income communities will be addressed through continued investments in transit operations, transit capital, and a continued focus on "mobility management" solutions to link individuals to travel options that meet their specific needs.

### Land Use Strategies

In this scenario, land use strategies target capacity increases for population and employment growth to PDAs along major corridors, with an emphasis on growth in medium-sized cities with access to the region's major rail services.

- Zoning: Encourage new housing development by increasing residential development capacity in PDAs based on locally identified PDA place type.
- Development cap: Raises SF office cap to 1.5 million.
- Open space: Protect the region's natural resources by avoiding development on adopted PCAs and accommodating all new growth within existing urban growth boundaries or urban limit lines, using city boundaries as a limit when a jurisdiction has no expansion limit.
- Reduce parking minimums: in PDAs with high levels of transit access along El Camino Real and East Bay corridors.
- Affordable housing: Encourage more affordable housing choices through inclusionary zoning- Assumes a moderate level of inclusionary units (deed-restricted) with a proportion of 10% for jurisdictions with PDAs.



### **Transportation Investments**

Urban growth patterns will require increased investment in our regional rail systems like BART and Caltrain, as well as the expansion of express bus services, including bus rapid transit (BRT) to connect inner-ring suburban communities to major job centers. At the same time, a smaller share of suburban and exurban residents will continue to drive, necessitating sustained investment in freeways and arterials. Strategies include the following (see **Attachment 2** for specific major investments):

- **Transit efficiency:** Prioritize transit efficiency investments to improve frequencies and reduce travel times on core transit lines across the region.
- **Highway efficiency:** Focus on a limited set of high performing highway efficiency investments, including strategic highway capacity improvements to address bottlenecks and provide reliever routes to freeways within the urban core.
- **Transit expansion:** Fund the most cost-effective transit expansion projects that support the region's highest-growth PDAs.
- **State of good repair:** Balance state of good repair needs with expansion and efficiency priorities for all modes; identify opportunities to align state of good repair to support PDA growth by repaving streets and upgrading buses that serve these communities.
- **Climate Strategies:** includes technological advancements (e.g. clean vehicles) and incentive programs to encourage travel options that help meet GHG emissions reduction targets.

### **Transportation Investments**

Urban growth patterns will require increased investment in our regional rail systems like BART and Caltrain, as well as the expansion of express bus services, including bus rapid transit (BRT) to connect inner-ring suburban communities to major job centers. At the same time, a smaller share of suburban and exurban residents will continue to drive, necessitating sustained investment in freeways and arterials. Strategies include the following (see **Attachment 2** for specific major investments):

- **Transit efficiency:** Prioritize transit efficiency investments to improve frequencies and reduce travel times on core transit lines across the region.
- **Highway efficiency:** Focus on a limited set of high performing highway efficiency investments, including strategic highway capacity improvements to address bottlenecks and provide reliever routes to freeways within the urban core.
- **Transit expansion:** Fund the most cost-effective transit expansion projects that support the region's highest-growth PDAs.
- **State of good repair:** Balance state of good repair needs with expansion and efficiency priorities for all modes; identify opportunities to align state of good repair to support PDA growth by repaving streets and upgrading buses that serve these communities.
- **Climate Strategies:** includes technological advancements (e.g. clean vehicles) and incentive programs to encourage travel options that help meet GHG emissions reduction targets.

## Scenario #3: Big Cities

### Description

Scenario 3 concentrates future population and employment growth in the locally-identified PDAs and TPAs within the Bay Area's three largest cities: San Jose, San Francisco, and Oakland. Neighboring cities that are already well-connected to these three cities by transit will see moderate to substandard increases in population and employment growth, particularly in their locally-identified PDAs and high opportunity areas. The amount of growth outside these areas is minimal, with limited infill development in PDAs and no greenfield development. Growth in the three biggest cities will require substantial investment to support transformational changes to accommodate households of all incomes. This scenario will prioritize strategies to make these existing urban neighborhoods even more compact and vibrant, and enable residents and workers to easily take transit, bike or walk to clusters of jobs, stores, services, and other amenities. Resources for affordable housing will likewise be directed to the cities taking on the most growth.

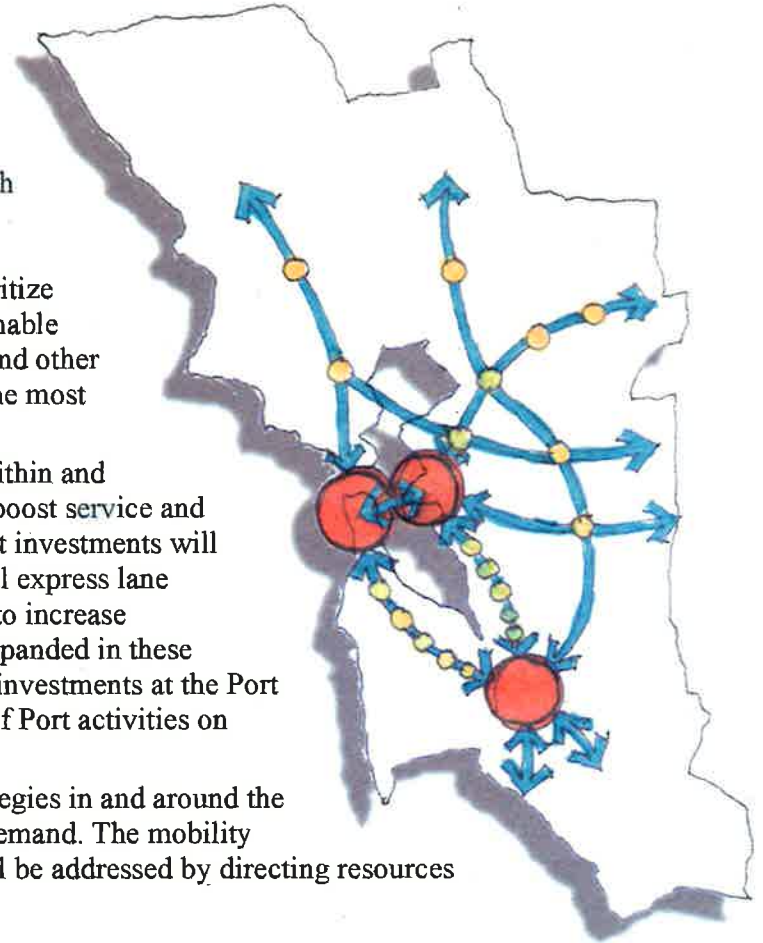
To support this scenario's big city-focused growth pattern, the transportation infrastructure within and directly serving the region's core will be maintained to a state of good repair, modernized to boost service and improve commutes and capacity, and expanded to meet increased demand. While these transit investments will take priority, the roadway network will also require significant investments, such as a regional express lane network to prioritize direct access to the three biggest cities and regional express bus service to increase connections to the region's core. Bicycle and pedestrian infrastructure will be dramatically expanded in these cities, including a robust network of bike sharing. To support industry and goods movement, investments at the Port of Oakland will be ramped up quickly to enable more efficiency and to mitigate the impacts of Port activities on nearby communities.

To reach our climate goals, this scenario will focus technological and financial incentive strategies in and around the three biggest cities, which will accommodate a significant increase in population and travel demand. The mobility and accessibility needs of seniors, persons with disabilities, and low-income communities will be addressed by directing resources for a robust increase in transit operations and capital within the region's core.

### Land Use Strategies

In this scenario, it is assumed that most of the region's population and employment growth will be located in San Francisco, San Jose, and Oakland—with the remainder primarily in cities directly proximate to the three biggest cities and areas well served by transit. Capacity for growth in these cities is emphasized in PDAs, TPAs, and other areas that are well served by transit.

- Zoning: Increases development capacity in areas with high transit access (with an emphasis on San Jose, San Francisco, Oakland, and their neighbors) by increasing residential densities in key PDAs, TPAs, and select opportunity sites.
- Development caps: Assumes elimination of caps on office development in San Francisco.





- Open space: Protect the region's natural resources by avoiding development on adopted PCAs and accommodating all new growth within existing urban growth boundaries or urban limit lines, using city boundaries as a limit when a jurisdiction has no expansion limit.
- Reduce parking minimums: in three big cities and neighboring communities.
- Affordable housing: Encourage more affordable housing choices through the following strategies:
  - Inclusionary zoning: Assumes a moderate level of inclusionary units (deed-restricted) with a proportion of 10% for jurisdictions with PDAs.
  - Assesses fees on residential development in high VMT areas to subsidize deed-restricted housing in low VMT areas.
- Other tax policy: encourages compact development through modifications to property tax assessment in three biggest cities.

### **Transportation Strategies**

In order to make this high-density growth pattern feasible without significantly worsening traffic congestion or overloading existing transit systems, transit capacity improvements and demand management strategies will be prioritized to accommodate travel to, from, and within the core cities. Strategies include the following (see **Attachment 2** for specific major investments):

- Core capacity and connectivity: Pursue expansion of the South Bay transit system to support high-density development across Silicon Valley, while at the same time prioritizing investment in core capacity projects in San Francisco and Oakland to enable high-density development.
- Transit enhancements and expansion: Link regional rail systems into the heart of the Bay Area's two largest cities – San Francisco and San Jose – while boosting service frequencies to support increasingly-urban commute patterns.
- Congestion pricing: Support urban development in San Francisco by implementing cordon pricing and leveraging motorists' tolls to pay for robust and time-competitive transit services.
- State of good repair: Align operating and maintenance funds to prioritize investments into high-growth cities and high-ridership systems;
- Climate Strategies: includes technological advancements (e.g. clean vehicles) and incentive programs to encourage travel options that help meet GHG emissions reduction targets.

- Open space: Protect the region's natural resources by avoiding development on adopted PCAs and accommodating all new growth within existing urban growth boundaries or urban limit lines, using city boundaries as a limit when a jurisdiction has no expansion limit.
- Reduce parking minimums: in three big cities and neighboring communities.
- Affordable housing: Encourage more affordable housing choices through the following strategies:
  - Inclusionary zoning: Assumes a moderate level of inclusionary units (deed-restricted) with a proportion of 10% for jurisdictions with PDAs.
  - Assesses fees on residential development in high VMT areas to subsidize deed-restricted housing in low VMT areas.
- Other tax policy: encourages compact development through modifications to property tax assessment in three biggest cities.

### **Transportation Strategies**

In order to make this high-density growth pattern feasible without significantly worsening traffic congestion or overloading existing transit systems, transit capacity improvements and demand management strategies will be prioritized to accommodate travel to, from, and within the core cities. Strategies include the following (see **Attachment 2** for specific major investments):

- Core capacity and connectivity: Pursue expansion of the South Bay transit system to support high-density development across Silicon Valley, while at the same time prioritizing investment in core capacity projects in San Francisco and Oakland to enable high-density development.
- Transit enhancements and expansion: Link regional rail systems into the heart of the Bay Area's two largest cities – San Francisco and San Jose – while boosting service frequencies to support increasingly-urban commute patterns.
- Congestion pricing: Support urban development in San Francisco by implementing cordon pricing and leveraging motorists' tolls to pay for robust and time-competitive transit services.
- State of good repair: Align operating and maintenance funds to prioritize investments into high-growth cities and high-ridership systems;
- Climate Strategies: includes technological advancements (e.g. clean vehicles) and incentive programs to encourage travel options that help meet GHG emissions reduction targets.



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COMMISSION

Bay Area Metro Center  
375 Beale Street  
San Francisco, CA 94105  
TEL 415.778.6700  
WEB [www.mtc.ca.gov](http://www.mtc.ca.gov)

## *Memorandum*

TO: Planning Committee

DATE: May 6, 2016

FR: Executive Director

RE: Plan Bay Area 2040 Project Performance Assessment: Final Performance Results and Guidelines for Applying Results

At the April 2016 MTC Commission Workshop, staff presented performance results for major uncommitted transportation projects and state of good repair investments. This memorandum presents final performance results and proposes guidelines for applying the results in the transportation investment element of the preferred scenario for Plan Bay Area (PBA) 2040, which is slated for adoption in September 2016. Staff requests that the Commission approve the proposed Project Performance Assessment guidelines, which lay out thresholds for defining high and low performance results.

### **Background**

All major uncommitted investments, including projects that expand transit and road facilities, improve road or transit efficiency, and state of good repair investments, are subject to performance assessment per MTC Resolution No. 4182 and prioritization for the investment strategy of PBA 2040. This assessment applies the same framework as PBA 2013, the currently adopted plan, with updated targets and benefit-cost methodology. Staff worked with stakeholders (congestion management agencies, transit agencies, state agencies, local jurisdictions and non-profit organizations) across multiple months in 2015 to update the project performance methodology. For the first time, staff also extended the benefit-cost methodology to state of good repair investments of highways, local streets and roads, rail and bus networks.

The assessment evaluates the degree to which potential transportation investments:

1. Are cost-effective, based on best practices for benefit-cost analysis in which the aim is to consistently quantify and monetize as many reasonably related benefits as possible.
2. Advance the thirteen performance targets adopted by MTC and ABAG in November 2015 (MTC Resolution No. 4204, Revised); and

Staff released draft results to congestion management agencies, project sponsors, and stakeholders in mid-March and presented revised results to the Commission at the end of April. Staff made additional revisions to five projects between the end of April and the May Planning Committee. Final results, reflecting the last set of revisions, are included in Attachment A and a summary of changes are included in Attachment B.

**Proposed Guidelines for Incorporating Performance Results for Plan Bay Area 2040**

For PBA 2013, the Planning Committee approved the following application guidelines for project performance:

1. Project performance assessment should be used to identify the highest and lowest performing projects.
2. The highest performing projects should be included in the preferred PBA 2040, subject to financial feasibility.
  - a. High performance requires high B/C and moderate targets score *or* high targets score and moderate B/C
3. The lowest performing projects may be considered if the sponsor or the congestion management agency (CMA) can make a compelling case and the project has a realistic funding plan.
  - a. Low performance requires low B/C *or* low targets score

Medium-performing projects and those not evaluated in the assessment are not subject to these guidelines; their inclusion in the draft preferred investment strategy will be based on county priorities, subject to financial feasibility. Attachment C illustrates the connection between performance status and inclusion in the draft preferred investment strategy.

Staff proposes to retain the framework and compelling case process from PBA 2013 and update the thresholds for defining high- and low-performance to reflect changes in performance results between PBA 2013 and PBA 2040. Attachment D includes the performance thresholds from PBA 2013 and the proposed updates for PBA 2040. Attachment E includes a draft list of the high- and low-performing projects using the thresholds in this memo.

Staff further proposes that a CMA or project **sponsor must make a compelling case in writing by June 10, 2016** why a low-performing project should be considered. Sponsors of low-performing projects have several options within the compelling case process:

- A project sponsor could drop their low-performing project.
- A project sponsor could modify their project into something that would be exempt from project assessment (e.g. funded with 100% local monies, request study funding or for a non-capacity increasing phase, scope the project to cost less than \$100 million).
- A project sponsor could submit a Compelling Case for consideration by the Planning Committee under a set of eligible Compelling Case criteria. Attachment F includes a more detailed description of the proposed Compelling Case criteria.

For the latter two options, it is important to note that all projects must eventually fit within the revenue envelope of PBA 2040 (e.g. subject to fiscal constraint).

**Next Steps**

If the Committee approves this performance process and thresholds, staff will notify CMAs and sponsors of these guidelines and of the opportunity to submit a compelling case if project sponsors seek to include the “low performing” projects in the preferred transportation investment strategy. At the same time MTC staff will continue to work with CMAs and transit operators to develop funding plans for the “high performing” projects for inclusion in the draft preferred investment strategy. Key, near-term milestones for PBA 2040 include:

- May 2016 – MTC Planning Committee approve guidelines

- June 2016 – CMAs/Sponsors submit compelling cases in writing by June 10, 2016
- July 2016 – MTC staff reviews cases and presents recommendations to the Planning Committee for approval
- September 2016 – MTC/ABAG approves the preferred scenario for PBA 2040

**Recommendation**

Staff requests that this Committee adopt the proposed performance guidance, performance thresholds to be forwarded to the Commission for approval, which will allow sponsors to start the compelling case process.

  
\_\_\_\_\_  
Steve Heminger

**Attachments**

- Attachment A: Final Performance Results Table
- Attachment B: Documentation of Revisions between April and May
- Attachment C: Connection between performance results and the investment strategy
- Attachment D: Proposed Performance Thresholds
- Attachment E: Project Performance Assessment: High-Performers and Low-Performers
- Attachment F : Plan Bay Area 2040 Compelling Case Criteria
- PowerPoint

SH:kc&dv  
Attachments

J:\COMMITTEE\Planning Committee\2016\05\_PLNG\_May 2016\3a\_1ProjectPerformanceThresholdsMemo\_PC.docx

ROW	ID	PROJECT NAME	LOCATION (COUNTY)	PROJECT TYPE	ANNUAL BENEFIT	ANNUAL COST	B/C RATIO	TARGETS SCORE
1	1503	Highway Pavement Maintenance (Ideal Conditions vs. Preserve Conditions)	Multi-County	Highway Maintenance	\$638	(\$1)	> 50	2.5
2	1502	Highway Pavement Maintenance (Preserve Conditions vs. No Funding)	Multi-County	Highway Maintenance	\$2,433	\$144	17	2.5
3	302	Treasure Island Congestion Pricing (Toll + Transit Improvements)	San Francisco	Congestion Pricing	\$56	\$4	14	4.5
4	1301	Columbus Day Initiative	Multi-County	ITS	\$421	\$38	11	4.0
5	209	SR-84 Widening + I-680/SR-84 Interchange Improvements (Livermore to I-680)	Alameda	Intraregional Road Expansion	\$116	\$13	9	1.0
6	501	BART to Silicon Valley – Phase 2 (Berryessa to Santa Clara)	Santa Clara	Rail Expansion	\$472	\$62	8	8.0
7	306	Downtown San Francisco Congestion Pricing (Toll + Transit Improvements)	San Francisco	Congestion Pricing	\$84	\$11	7	7.0
8	1651	Public Transit Maintenance - Rail Operators (Preserve Conditions vs. No Funding)	Multi-County	Rail Maintenance	\$1,351	\$198	7	9.5
9	506	El Camino Real BRT (Palo Alto to San Jose)	Santa Clara	BRT	\$85	\$13	7	6.5
10	301	Geary BRT	San Francisco	BRT	\$124	\$20	6	7.0
11	505	Capitol Expressway LRT – Phase 2 (Alum Rock to Eastridge)	Santa Clara	Rail Expansion	\$77	\$12	6	5.5
12	518	ACE Alviso Double-Tracking	Santa Clara	Rail Efficiency	\$36	\$6	6	1.5
13	1650	Public Transit Maintenance - Bus Operators (Preserve Conditions vs. No Funding)	Multi-County	Bus Maintenance	\$623	\$103	6	8.0
14	1203	Vallejo-San Francisco + Richmond-San Francisco Ferry Frequency Improvements	Multi-County	Ferry	\$29	\$5	6	4.5
15	203	Irvington BART Infill Station	Alameda	Rail Efficiency	\$30	\$6	5	3.5
16	101	Express Lane Network (US-101 San Mateo/San Francisco)	Multi-County	Express Lanes	\$48	\$10	5	0.5
17	903	Sonoma County Service Frequency Improvements	Sonoma	Bus Frequency Improvements	\$75	\$15	5	5.0
18	523	VTA Service Frequency Improvements (15-Minute Frequencies)	Santa Clara	Bus Frequency Improvements	\$103	\$23	4	5.0
19	211	SR-262 Connector (I-680 to I-880)	Alameda	Intraregional Road Expansion	\$22	\$5	4	-0.5
20	1403	Local Streets and Roads Maintenance (Preserve Conditions vs. No Funding)	Multi-County	Local Streets Maintenance	\$1,875	\$428	4	3.5
21	207	San Pablo BRT (San Pablo to Oakland)	Multi-County	BRT	\$67	\$16	4	7.0
22	210	I-580 ITS Improvements	Alameda	ITS	\$44	\$11	4	1.0
23	504	Stevens Creek LRT	Santa Clara	Rail Expansion	\$144	\$38	4	5.5
24	1001	BART Metro Program (Service Frequency Increase + Bay Fair Operational Improvements + SFO Airport Express Train)	Multi-County	Rail Efficiency	\$430	\$123	3	9.0
25	1101	Caltrain Modernization - Phase 1 (Electrification + Service Frequency Increase)	Multi-County	Rail Efficiency	\$195	\$56	3	6.5

all benefits and costs are in millions of 2017 dollars



ROW	ID	PROJECT NAME	LOCATION (COUNTY)	PROJECT TYPE	ANNUAL BENEFIT	ANNUAL COST	B/C RATIO	TARGETS SCORE
26	605	Jepson Parkway (Fairfield to Vacaville)	Solano	Intraregional Road Expansion	\$17	\$5	3	1.0
27	1202	Oakland-Alameda-San Francisco Ferry Frequency Improvements	Multi-County	Ferry	\$16	\$5	3	2.5
28	1102	Caltrain Modernization - Phase 1 + Phase 2 (Electrification + Service Frequency Increase + Capacity Expansion)	Multi-County	Rail Efficiency	\$236	\$77	3	6.5
29	411	SR-4 Auxiliary Lanes - Phases 1 + 2 (Concord to Pittsburg)	Contra Costa	Intraregional Road Expansion	\$44	\$15	3	2.0
30	507	Vasona LRT - Phase 2 (Winchester to Vasona Junction)	Santa Clara	Rail Expansion	\$30	\$11	3	5.0
31	515	Tasman West LRT Realignment (Fair Oaks to Mountain View)	Santa Clara	Rail Expansion	\$48	\$18	3	5.0
32	517	Stevens Creek BRT	Santa Clara	BRT	\$29	\$11	3	5.5
33	102	US-101 HOV Lanes (San Francisco + San Mateo Counties)	Multi-County	Express Lanes	\$63	\$25	3	2.0
34	503	SR-152 Tollway (Gilroy to Los Banos)	Multi-County	Interregional Road Expansion	\$95	\$37	3	-1.5
35	307	Caltrain Modernization - Phase 1 (Electrification + Service Frequency Increase) + Caltrain to Transbay Transit Center	Multi-County	Rail Expansion	\$290	\$113	3	7.0
36	331	Better Market Street	San Francisco	BRT	\$32	\$13	3	4.5
37	1206	Alameda Point-San Francisco Ferry	Multi-County	Ferry	\$12	\$5	2	3.0
38	1204	Berkeley-San Francisco Ferry	Multi-County	Ferry	\$10	\$4	2	5.0
39	1302	Express Lane Network (East and North Bay)	Multi-County	Express Lanes	\$214	\$91	2	3.0
40	206	AC Transit Service Frequency Improvements	Multi-County	Bus Frequency Improvements	\$248	\$120	2	6.5
41	513	North Bayshore LRT (NASA/Bayshore to Google)	Santa Clara	Rail Expansion	\$42	\$22	2	4.0
42	502	Express Lane Network (Silicon Valley)	Santa Clara	Express Lanes	\$69	\$38	2	3.0
43	604	Solano County Express Bus Network	Multi-County	Express Bus Network	\$21	\$12	2	2.5
44	522	VTA Service Frequency Improvements (10-Minute Frequencies)	Santa Clara	Bus Frequency Improvements	\$177	\$99	2	7.0
45	402	eBART - Phase 2 (Antioch to Brentwood)	Contra Costa	Rail Expansion	\$21	\$12	2	4.0
46	311	Muni Forward Program	San Francisco	Bus Frequency Improvements	\$60	\$36	2	6.5
47	901	US-101 Marin-Sonoma Narrows HOV Lanes - Phase 2	Multi-County	Intraregional Road Expansion	\$31	\$19	2	3.0
48	409	I-680/SR-4 Interchange Improvements + HOV Direct Connector	Contra Costa	Intraregional Road Expansion	\$42	\$27	2	3.0
49	103	El Camino Real Rapid Bus (Daly City to Palo Alto)	San Mateo	Bus Frequency Improvements	\$54	\$36	2	2.0
50	401	TriLink Tollway + Expressways (Brentwood to Tracy/Altamont Pass)	Multi-County	Interregional Road Expansion	\$75	\$51	1	-0.5

all benefits and costs are in millions of 2017 dollars

ROW	ID	PROJECT NAME	LOCATION (COUNTY)	PROJECT TYPE	ANNUAL BENEFIT	ANNUAL COST	B/C RATIO	TARGETS SCORE
51	312	19th Avenue Subway (West Portal to Parkmerced)	San Francisco	Rail Efficiency	\$39	\$27	1	7.5
52	801	Golden Gate Transit Frequency Improvements	Multi-County	Express Bus Network	\$11	\$8	1	4.5
53	313	Muni Service Frequency Improvements	San Francisco	Bus Frequency Improvements	\$89	\$79	1	6.0
54	1413	Local Streets and Roads Maintenance (Preserve Conditions vs. Local Funding)	Multi-County	Local Streets Maintenance	\$194	\$198	1	3.5
55	516	VTA Express Bus Frequency Improvements	Santa Clara	Express Bus Network	\$18	\$19	0.9	4.5
56	202	East-West Connector (Fremont to Union City)	Alameda	Intraregional Road Expansion	\$10	\$12	0.9	1.5
57	304	Southeast Waterfront Transportation Improvements (Hunters Point Transit Center + New Express Bus Services)	San Francisco	Express Bus Network	\$16	\$27	0.6	6.0
58	410	Antioch-Martinez-Hercules-San Francisco Ferry	Multi-County	Ferry	\$9	\$16	0.6	1.5
59	403	I-680 Express Bus Frequency Improvements	Multi-County	Express Bus Network	\$12	\$21	0.6	2.5
60	404	SR-4 Widening (Antioch to Discovery Bay)	Contra Costa	Interregional Road Expansion	\$9	\$17	0.5	-0.5
61	510	Downtown San Jose Subway (Japantown to Convention Center)	Santa Clara	Rail Efficiency	\$10	\$18	0.5	6.5
62	104	Geneva-Harney BRT + Corridor Improvements	Multi-County	BRT	\$15	\$46	0.3	5.0
63	508	SR-17 Tollway + Santa Cruz LRT (Los Gatos to Santa Cruz)	Multi-County	Interregional Road Expansion	\$57	\$200	0.3	1.0
64	519	Lawrence Freeway	Santa Clara	Intraregional Road Expansion	\$7	\$34	0.2	2.0
65	601	I-80/I-680/SR-12 Interchange Improvements	Solano	Intraregional Road Expansion	\$5	\$32	0.2	2.5
66	1304	Bay Bridge West Span Bike Path	San Francisco	Bike/Ped	\$4	\$30	0.1	2.0
67	905	SMART – Phase 3 (Santa Rosa Airport to Cloverdale)	Sonoma	Rail Expansion	\$0	\$12	0	4.0
68	1201	San Francisco-Redwood City + Oakland-Redwood City Ferry	Multi-County	Ferry	\$0	\$8	0	2.0
69	205_15	Express Bus Bay Bridge Contraflow Lane	Multi-County	Express Bus Network	\$0	\$10	0	5.0

all benefits and costs are in millions of 2017 dollars

May 2016



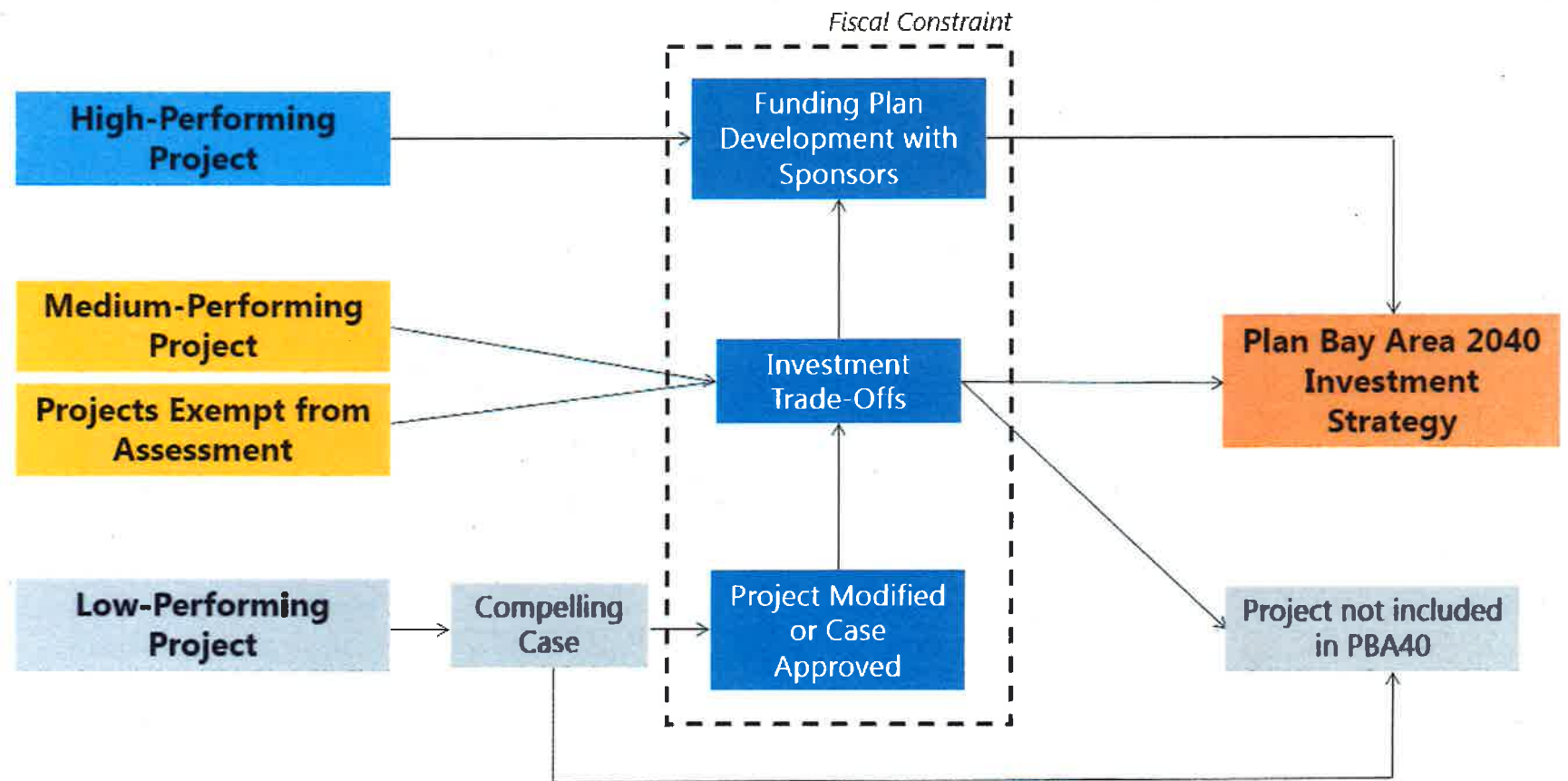
**Attachment B: Summary of Revisions between April and May**

Row #	Project ID	Project Name	Location (County)	Annual Benefit*	Annual Cost*	B/C Ratio
<i>Updated annual cost information</i>						
1	1001	BART Metro Program (Service Frequency Increase + Bay Fair Operational Improvements + SFO Airport Express Train)	Multi-County	\$430	\$123	3
<i>Project modeling refinements</i>						
2	207	San Pablo BRT (San Pablo to Oakland)	Multi-County	\$67	\$16	4
3	312	19th Avenue Subway (West Portal to Parkmerced)	San Francisco	\$39	\$27	1
4	502	Express Lane Network (Silicon Valley)	Santa Clara	\$69	\$38	2
<i>Project dropped from the assessment</i>						
5	1407	Local Streets and Roads Maintenance (Ideal Conditions vs. Preserve Conditions)	Multi-County	--	--	--

\*all benefits and costs are in millions of 2017 dollars

## Attachment C

### Connection between performance results and the investment strategy



## Attachment D

### Proposed Performance Thresholds

Performance Definition	Plan Bay Area			Plan Bay Area 2040		
<b><u>High-Performer</u></b>	Benefit-Cost Ratio		Targets Score	Benefit-Cost Ratio		Targets Score
High benefit-cost ratio <b>and</b> medium targets score	$\geq 10$	And	$\geq 2$	$\geq 7$	And	$\geq 3$
High targets score <b>and</b> medium benefit-cost ratio	$\geq 5$	And	$\geq 6$	$\geq 3$	And	$\geq 7$
<b><u>Low-Performer</u></b>						
Low benefit-cost ratio <b>or</b> low targets score	$< 1$	Or	$\leq -1$	$< 1$	Or	$< 0$

# Attachment E: Project Performance Assessment Draft High-Performers and Low-Performers\*\*

**DRAFT** High-Performing Projects: High B/C ( $\geq 10$ ) and Moderate Targets Score ( $\geq 3$ )  
OR High Targets Score ( $\geq 7$ ) and Moderate B/C (between 3 and 10)

Row #	Project ID	Project Name	Location (County)	B/C Ratio	Targets Score	Project Description
1	302	Treasure Island Congestion Pricing	San Francisco	14	4.5	Charges a toll for residents to exit Treasure Island with net revenues used to increase ferry and bus service to/from Treasure Island.
2	1301	Columbus Day Initiative	Multi-County	11	4.0	Increases capacity of freeways and arterials through adaptive ramp metering, signal coordination, and hard-shoulder running lanes for carpools and buses.
3	501	BART to Silicon Valley – Phase 2	Santa Clara	8	8.0	Extends BART from Berryessa through a new BART subway to Alum Rock, Downtown San Jose, Diridon Station, and Santa Clara.
4	306	Downtown San Francisco Congestion Pricing	San Francisco	7	7.0	Charges a toll to enter/exit the northeast quadrant of San Francisco with net revenues used to increase bus service, implement transit priority infrastructure, and pedestrian and bicycle improvements.
5	1651	Public Transit Maintenance – Rail Operators	Multi-County	7	9.5	Funds the maintenance of all assets related to providing existing rail service throughout the Bay Area.
6	301	Geary BRT	San Francisco	6	7.0	Constructs a bus rapid transit line with dedicated lanes along Geary Boulevard in San Francisco.
7	207	San Pablo BRT	Multi-County	4	7.0	Constructs a bus rapid transit line with dedicated lanes along San Pablo Avenue from San Pablo to downtown Oakland.
8	1650	Public Transit Maintenance – Bus Operators	Multi-County	6	8.0	Funds the maintenance of all assets related to providing existing bus service throughout the Bay Area.
9	1001	BART Metro Program	Multi-County	3	9.0	Increases frequency on all BART lines through infrastructure upgrades, new turnbacks and providing new express train service to SFO.
10	307	Caltrain Modernization + Caltrain to Transbay Transit Center	Multi-County	3	7.0	Electrifies the Caltrain line to support faster and more frequent high-capacity transit from San Jose to San Francisco and constructs a tunnel from the existing 4th and King terminus to the Transbay Terminal.

\*\*thresholds for high- and low-performing projects reflect staff proposals for May 2016 Planning Committee; results on this table are revised draft results and subject to change before final results are released in mid-May.

**DRAFT Low-Performing Projects: Low B/C (<1) OR Low Targets Score (<0)\*\***

Row #	Project ID	Project Name	Location (County)	B/C Ratio	Targets Score	Project Description
1	211	SR-262 Connector	Alameda	4	-0.5	Upgrades existing facility to freeway standard from I-880 to I-680 and grade separates the facility.
2	401	TriLink Tollway + Expressways	Multi-County	1	-0.5	Constructs a new tollway from Brentwood to Tracy that would replace the existing Vasco Road, upgrades Byron Highway and constructs a new east-west facility at Byron Airport.
3	503	SR-152 Tollway	Multi-County	3	-1.5	Realigns SR-152 on a new facility east of Gilroy.
4	516	VTA Express Bus Frequency Improvements	Santa Clara	0.9	4.5	Increases frequency on VTA express bus routes from south to north Santa Clara County.
5	202	East-West Connector	Alameda	0.9	1.5	Constructs a new facility between I-880 and SR-238 in Fremont near the Union City BART station.
6	304	Southeast Waterfront Transportation Improvements	San Francisco	0.6	6.0	Increases transit service to a new Hunters Point Transit Center including new express bus service to downtown San Francisco.
7	410	Antioch-Martinez-Hercules-San Francisco Ferry	Multi-County	0.6	1.5	Implements ferry service between Antioch, Martinez, Hercules and downtown San Francisco.
8	403	I-680 Express Bus Frequency Improvements	Multi-County	0.6	2.5	Increases express bus frequencies along I-680 between the Tri-Valley and Central Contra Costa County.
9	404	SR-4 Widening	Contra Costa	0.5	-0.5	Widens SR-4 to six lanes from Laurel Road to Balfour Road and to four lanes from Balfour Road to the San Joaquin County Line.
10	510	Downtown San Jose Subway	Santa Clara	0.5	6.5	Constructs a subway in downtown San Jose that would replace four surface stations with two underground stations.
11	104	Geneva Harney BRT + Corridor Improvements	Multi-County	0.3	5.0	Constructs a full interchange at Candlestick/US-101, extends Geneva Avenue to US-101, constructs a bus bridge in Hunters Point and implements a bus rapid transit line from Hunters Point Transit Center to the Balboa Park BART Station.
12	508	SR-17 Tollway + Santa Cruz LRT	Multi-County	0.3	1.0	Replaces Highway 17 with a tolled tunnel from Los Gatos to Santa Cruz and extends light rail from Vasona Junction to downtown Santa Cruz on the new facility.
13	519	Lawrence Freeway	Santa Clara	0.2	2.0	Upgrades Lawrence Expressway to a freeway facility with grade separations and minor widening at interchanges.

Row #	Project ID	Project Name	Location (County)	B/C Ratio	Targets Score	Project Description
14	601	I-80/I-680/SR-12 Interchange Improvements	Solano	0.2	2.5	Widens I-80 and I-680 in the vicinity of the interchange and constructs direct-connectors, as well as HOV connector ramps, between I-80, I-680, and SR-12.
15	1304	Bay Bridge West Span Bike Path	San Francisco	0.1	2.0	Constructs a bike facility on the western span of the Bay Bridge between Treasure Island and San Francisco.
16	905	SMART – Phase 3	Sonoma	0	4.0	Extends SMART service from north of Santa Rosa to Windsor, Healdsburg, and Cloverdale.
17	1201	San Francisco-Redwood City Ferry + Oakland-Redwood City Ferry	Multi-County	0	2.0	Implements ferry service from San Francisco and Oakland to the Port of Redwood City.
18	205_15	Express Bus Bay Bridge Contraflow Lane	Multi-County	0	5.0	Implements a westbound bus-only lane on the eastbound deck of the Bay Bridge during the AM peak period.

**\*\*thresholds for high- and low-performing projects reflect staff proposals for May 2016 Planning Committee; results on this table are revised draft results and subject to change before final results are released in mid-May.**

## Attachment F: Project Performance Assessment Draft Compelling Case Criteria

A case can be made to include a low-performing project in the preferred Plan Bay Area 2040 transportation investment plan if the project is financially feasible and falls under one of the categories listed below. The first category, which applies to projects with a low benefit-cost ratio only, acknowledges that some benefits are not fully captured in the regional travel forecast model. The second category, which applies to all projects, acknowledges that federal requirements give special preference to certain kinds of investments, such as those that improve air quality or benefit low-income or minority communities.

Category 1: Benefits Not Captured by the Travel Model	Category 2: Federal Requirements
<ul style="list-style-type: none"><li>a) interregional or recreational corridor</li><li>b) provides significant goods movement benefits**</li><li>c) project benefits accrue from reductions in weaving, transit vehicle crowding, or other travel behaviors not well represented in the travel model</li><li>d) enhances system performance based on complementary new funded investments</li></ul>	<ul style="list-style-type: none"><li>a) cost-effective means of reducing CO<sub>2</sub>, PM, or ozone precursor emissions</li><li>b) improves transportation mobility/reduces air toxics and PM emissions in communities of concern</li></ul>

\*\*updated criteria from Plan Bay Area which replaces the criteria for accessing international airports with providing significant goods movement benefits

# Metropolitan Transportation Commission

101 Eighth Street,  
Joseph P. Bort MetroCenter  
Oakland, CA

## Legislation Details (With Text)

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<b>File #:</b>	15-1682	<b>Version:</b>	1	<b>Name:</b>	
<b>Type:</b>	Report	<b>Status:</b>		Informational	
<b>File created:</b>	5/27/2016	<b>In control:</b>		Bay Area Partnership Board	
<b>On agenda:</b>	6/1/2016	<b>Final action:</b>			
<b>Title:</b>	FTA Finance Concept*				

Staff will provide information regarding concepts for financing against Federal Transit Administration formula funds, to support the region's transit capital program.

**Sponsors:**

**Indexes:**

**Code sections:**

**Attachments:** [4\\_TCP Financing.pdf](#)

Date	Ver.	Action By	Action	Result
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**Subject:**

FTA Finance Concept\*

*Staff will provide information regarding concepts for financing against Federal Transit Administration formula funds, to support the region's transit capital program.*

**Presenter:**

Anne Richman





METROPOLITAN  
TRANSPORTATION  
COMMISSION

Agenda Item 4

Bay Area Metro Center  
375 Beale Street  
San Francisco, CA 94105  
TEL 415.778.6700  
WEB [www.mtc.ca.gov](http://www.mtc.ca.gov)

## *Memorandum*

TO: Bay Area Partnership Board

DATE: May 27, 2016

FR: Anne Richman, Director, Programming and Allocations

RE: FTA Finance Concept

MTC staff, working with financial and legal advisors, and transit operator staff through the Partnership's Transit Finance Working Group, has been developing plans to finance one or more transit capital projects by borrowing against future Federal Transit Administration (FTA) formula funds. The projects would be funded with proceeds of the financing, rather than annual FTA apportionments programmed through the Transit Capital Priorities (TCP) program. A portion of the region's apportionments would be used to make debt service payments. The objective of financing is to accelerate the funding and delivery of critical capital projects by advancing FTA funds from future years when annual apportionments are projected to exceed high-priority needs, to the next four-year TCP programming cycle, when needs are projected to exceed annual apportionments.

The need for financing was anticipated when MTC adopted the Core Capacity Challenge Grant Program (Resolution 4123) in 2013, which established a \$7.5 billion, 16-year funding framework for a set of key projects designed to increase capacity and improve the state of good repair of transit service in the urban core of the region, including fleet replacement and expansion for BART, SFMTA and AC Transit, and related infrastructure projects. The Core Capacity funding plan includes \$3.5 billion in FTA and other federal funds, of which a portion would be advanced through financing to accelerate completion of the projects.

While many of the details of financing remain to be worked out, following are some key concepts:

**Size of issue:** Staff is working toward a debt issue in the range of \$700-800 million, which is roughly the amount by which high-scoring needs for the TCP program between FY2016-17 and FY2020-21 are projected to exceed FTA apportionments over the same period. After FY21, FTA revenues are expected to exceed high-scoring needs. See Attachment A for a "mountain chart" illustrating the mismatch in timing between needs and revenues.

**Term: The debt would be repaid over a period of 10 to 15 years.**

**Debt service:** Annual debt service payments are projected to average between \$65 million and \$100 million per year, depending on the size and term of the issue. Structures designed to defer debt service payments to the later years of the term are being explored. Funding for debt service would be programmed to the issuer of the debt, and would have first claim on FTA apportionments.

**Issuer:** The planning work has focused on MTC as the issuer of the debt, using the Bay Area Infrastructure Financing authority as a conduit, but staff is also considering as an alternative having one of the transit operators issue the debt to finance its projects.

**Projects to be financed:** The planning work has focused on the BART Car Replacement project as a prime candidate for financing because it is the largest single project in the TCP program, and because a contract for the cars has been awarded, so the cash flow needs are well defined. However, other projects could also be good candidates for financing, such as SFMTA light rail vehicles (LRVs) and Caltrain electric railcars.

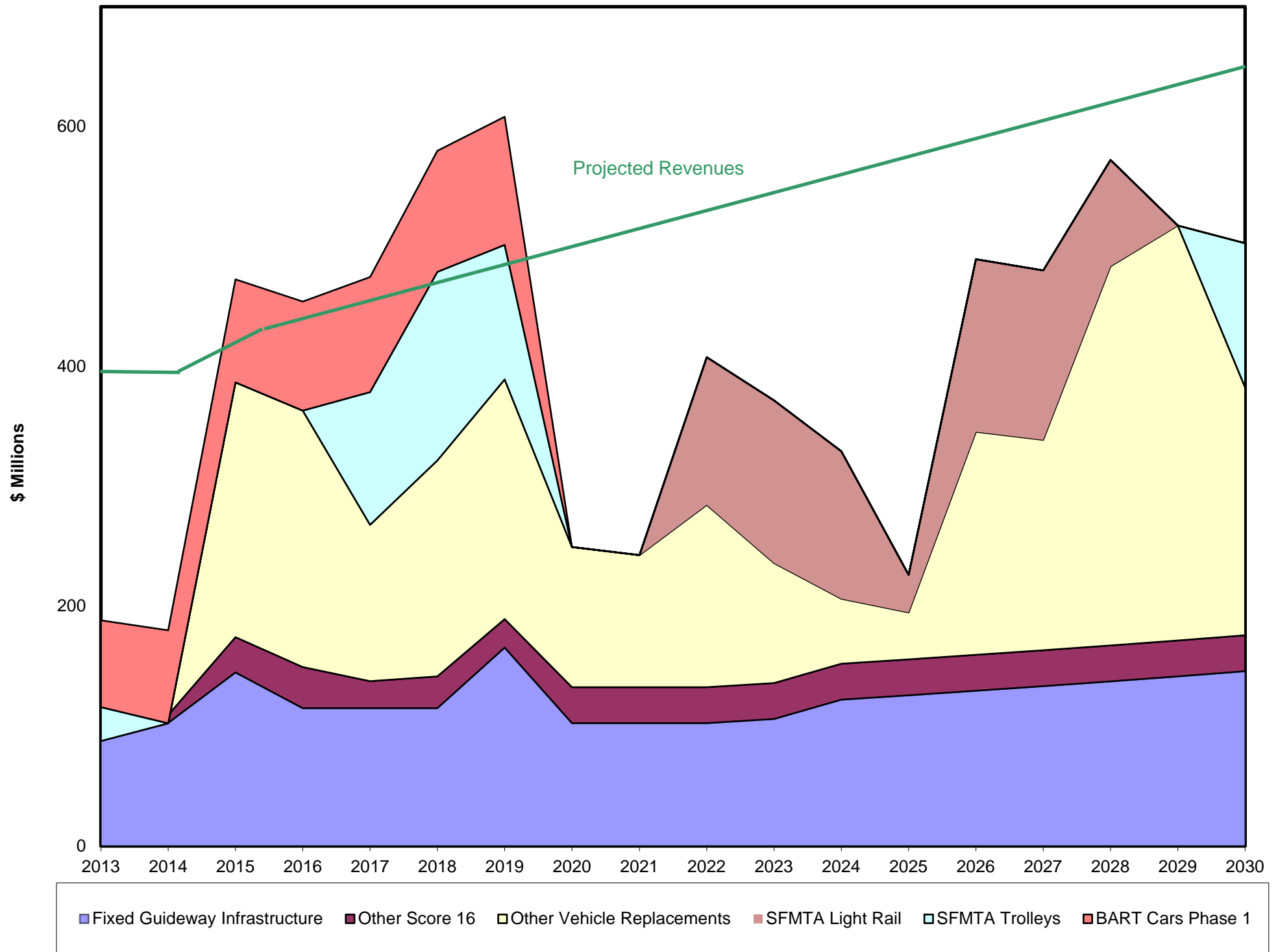
**Urbanized areas:** A key concept is that debt service would be paid only from apportionments to urbanized areas where the operator whose project is being financed is eligible for TCP funds. For example, if the SFMTA LRVs were financed, debt service would be paid only from San Francisco-Oakland urbanized area apportionments.

**Agreements:** Projects would be financed only by agreement with the affected transit operator. Completing the financing would require agreements between the operator and MTC, MTC and FTA, and MTC and the bondholders.

**Timing:** Because of the significant shortfall expected in the FY17 TCP program, we are anticipating the need for financing to start as soon as next year. Therefore the details of a financing would need to be worked out in the coming months. We expect to work closely with the Transit Finance Working Group, Partnership Board, particular transit operators, and FTA as the structure is developed.

Attachment A – Mountain Chart FY15-FY30 TCP Projections

AR:gt



# Metropolitan Transportation Commission

101 Eighth Street,  
Joseph P. Bort MetroCenter  
Oakland, CA

## Legislation Details (With Text)

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<b>File #:</b>	15-1683	<b>Version:</b>	1	<b>Name:</b>	
<b>Type:</b>	Report	<b>Status:</b>		Informational	
<b>File created:</b>	5/27/2016	<b>In control:</b>		Bay Area Partnership Board	
<b>On agenda:</b>	6/1/2016	<b>Final action:</b>			
<b>Title:</b>	Regional Gas Tax Update*				

Staff seeks feedback regarding MTC's consideration of placing a 5-cent per gallon regional gas tax on the November 2016 ballot with the funds to be focused on local road repairs, including eligibility for bicycle and pedestrian improvements.

**Sponsors:**

**Indexes:**

**Code sections:**

**Attachments:** [5 Regional Gas Tax.pdf](#)

Date	Ver.	Action By	Action	Result
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**Subject:**

Regional Gas Tax Update\*

*Staff seeks feedback regarding MTC's consideration of placing a 5-cent per gallon regional gas tax on the November 2016 ballot with the funds to be focused on local road repairs, including eligibility for bicycle and pedestrian improvements.*

**Presenter:**

Rebecca Long



METROPOLITAN  
TRANSPORTATION  
COMMISSION

Agenda Item 5

Bay Area Metro Center  
375 Beale Street  
San Francisco, CA 94105  
TEL 415.778.6700  
WEB [www.mtc.ca.gov](http://www.mtc.ca.gov)

## *Memorandum*

TO: Partnership Board

DATE: May 27, 2016

FR: Rebecca Long, Legislation and Public Affairs

RE: Regional Gas Tax Update: Request for Input for Possible Expenditure Plan

### **Background**

Recent polling in the nine Bay Area counties found that almost two-thirds of Bay Area likely voters support a 5-cent per gallon regional gas tax to fund local street and road repairs (including bicycle and pedestrian improvements). Regionwide, the response was 65 percent support, with support only varying considerably in Solano County at 50%. This matter was discussed at the Commission Workshop in April and MTC's Legislation Committee meeting in May. Excerpts from the presentations at those meetings is included as Attachment A.

To better inform the Commission's decision about whether to place a measure on the November ballot, MTC staff is seeking your input on an expenditure plan that would primarily fund local street and road repairs, while also providing eligibility for bicycle and pedestrian improvements, consistent with the way in which the measure was described in the poll.

The statute requires that revenue be returned to the counties based on population, but does not specify how the funds are distributed within each county. Given the concept is a program focused on local streets and roads, staff believes a formula program makes the most sense. Attachment B details a number of options, including:

1. A population-based distribution;
2. A 50/50 county/city split, with the city share further distributed based on population;
3. A combination formula that takes into account population, road miles and pavement needs with each factor counting 33%. MTC used a similar distribution method for a portion of federal Surface Transportation Funds prior to the One Bay Area Grant Program based on the recommendation of Bay Area Public Works Directors.

The remainder of this memo provides an overview of the regional gas tax statute with respect to project eligibility and development of the expenditure plan, provides a rough timeline for placement on the ballot, and highlights the competing statewide and local measures that are confirmed or likely to be on the November 2016 ballot.

### **Key Provisions of the Bay Area's Regional Gas Tax Statute**

MTC has the authority to request that Bay Area counties place a regional gas tax on the ballot in any amount *up to* 10 cents per gallon for up to 20 years. The statute authorizing this tax specifies the exact wording of the ballot question, as shown in Attachment C. Staff estimates a 5-cent per gallon tax would raise approximately \$140 million annually region wide. The statute requires that each county receive at least 95 percent of its population share in proceeds from the tax. While the statute provides for broad eligibility, MTC proposes to pursue a “pennies for potholes” program focused on local road repairs. With respect to process, the statute requires that MTC adopt a Regional Transportation Expenditure Plan (RTEP) in consultation with “cities, counties, transit operators, congestion management agencies, and other interested groups.”

### **Election Process: Timeline & Other Key Requirements**

- To place the measure on the ballot, MTC must make a request of the Board of Supervisors in each of the nine counties. A county can opt out of the regional measure if it submits another countywide transportation funding measure to the voters at the same election.
- Election costs are to be paid out of proceeds from tax or other MTC funds if the measure fails.
- Election law requires MTC to submit a measure to each Board of Supervisors 88 days prior to the election — by August 12, 2016 if it is to be on the November 2016 ballot.

### **Competing Funding Measures**

An important consideration about whether or not to pursue a regional gas tax this fall is the potential for the measure to negatively affect (and be affected by) other local transportation and affordable housing measures, as well as statewide revenue measures. A number of Bay Area jurisdictions, including the BART, AC Transit, Contra Costa Transportation Authority, SFCTA, and the Santa Clara Valley Transportation Authority, are expected to place revenue measures before the voters this November.

### **Next Steps**

Staff is seeking input through various key stakeholder meetings over the next several weeks. We look forward to hearing your feedback at the June Partnership Board meeting.

### **Attachments**

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# Bay Area Gas Tax

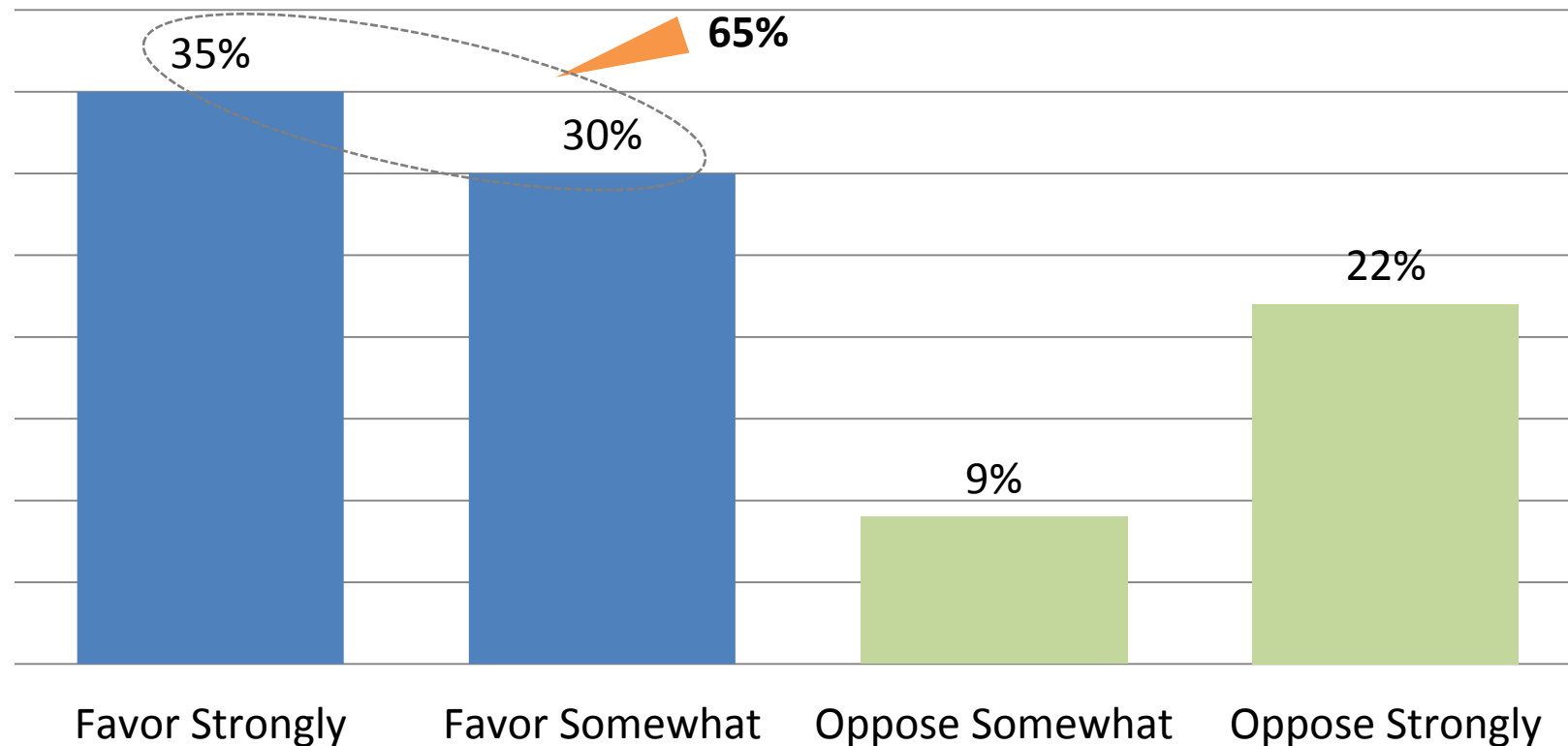
A ballot measure is being proposed to establish a gas tax which would increase the cost of gasoline by \_\_\_\_\_\* per gallon in all Bay Area counties. The revenue would directly fund local road repairs, as well as improvements for bicycle and pedestrian routes.

- **Overall, do you favor or oppose this measure? Is that strongly or somewhat?**

\*question was asked at 5 cents and 10 cents per gallon

# Bay Area Gas Tax – 5 cents/gallon

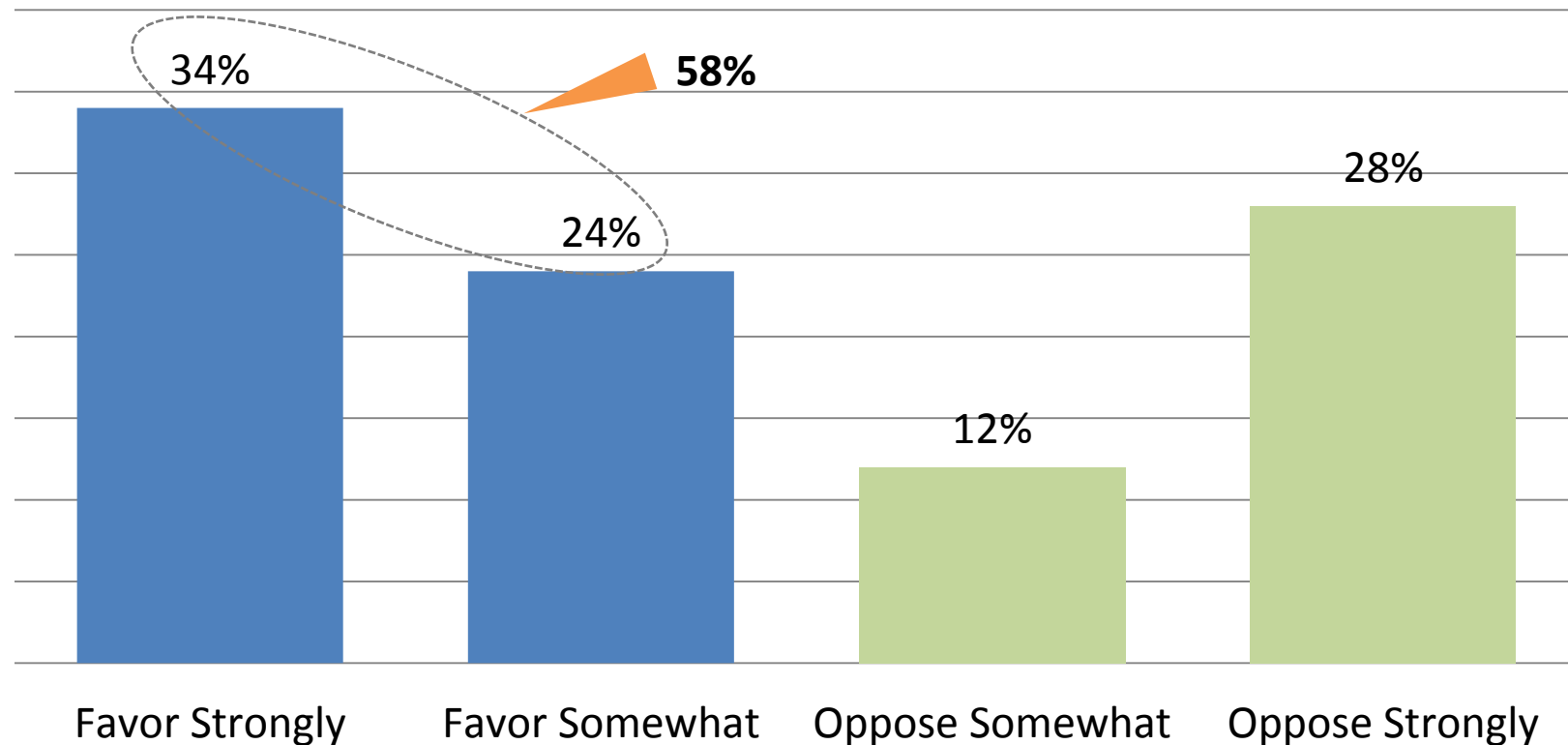
If this tax increased the cost of gasoline by 5 cents per gallon, rather than 10 cents, would you favor or oppose this measure?





# Bay Area Gas Tax – 10 cents/gallon

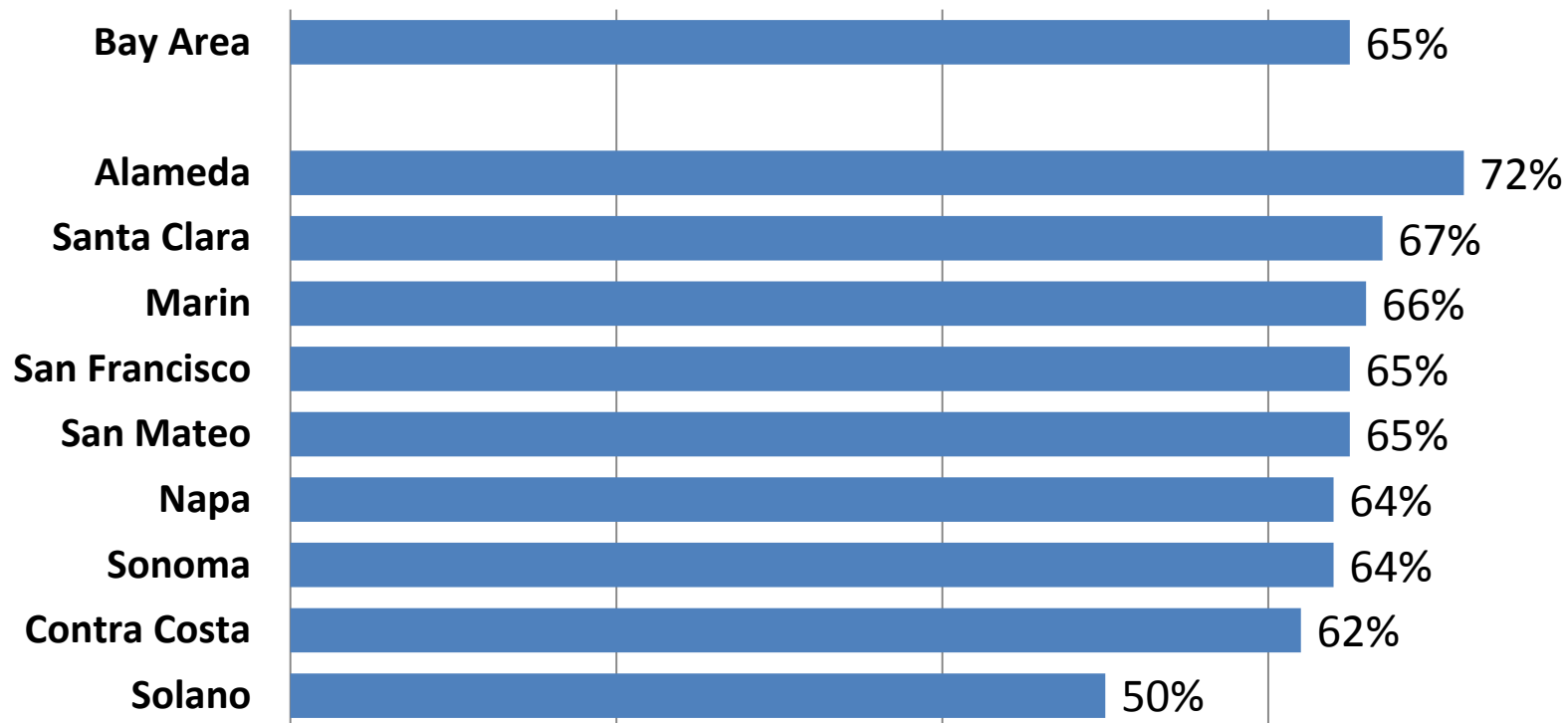
Overall, do you favor or oppose this measure?...Is that strongly or somewhat?



Percentages above do not include don't know responses (2% of total)

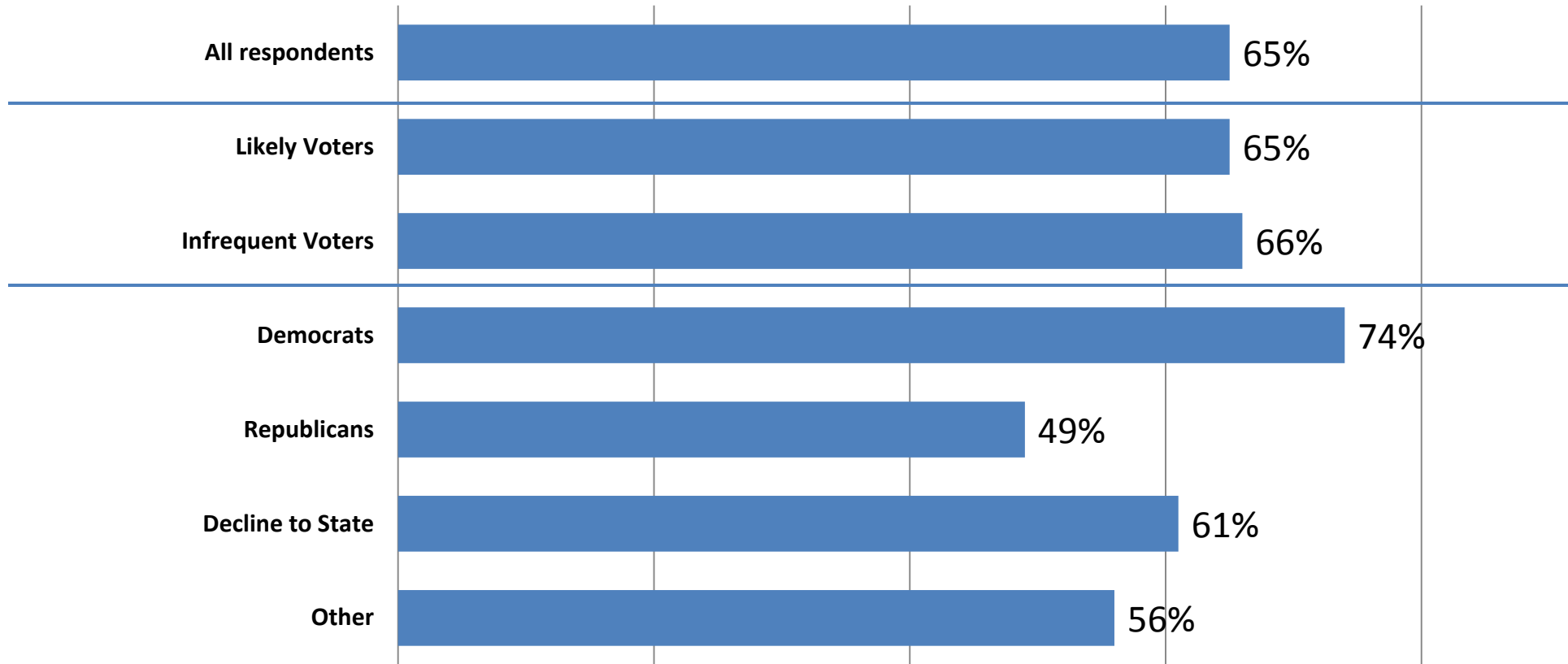
# Support by County – 5 cents/gal

Share who support gas tax strongly or somewhat...



# Support for Gas Tax – 5 cents/gal

Share who favor strongly or somewhat ...



# Statements and Impact

- Following initial gas tax question (at 10 cents), voters were read statements in favor and opposed to measure.
- Some statements resonated more than others with voters.
- However, there was no change in overall support for measure when voters were re-asked the measure (at 10 cents) after hearing statements.
- Support DID increase when asked about a 5 cent gas tax

**Annual Regional Gas Tax Revenue (2017) Distribution Scenarios**

Regional Gas Tax (5 cents/gallon)	
Total	\$ 141,975,208
BOE 1% Takedown	\$ 1,419,752
Net after BOE	\$ 140,555,456
MTC 1% Admin Takedown	\$ 1,405,555
Net after MTC	\$ 139,149,901
5% Regional Discretionary Funding	\$ 6,957,495
<b>Net 95% for County Distribution</b>	<b>\$ 132,192,406</b>

Total Bay Area Revenue (2017 Estimate)	County Shares
Alameda	\$ 28,064,378
Contra Costa	\$ 19,410,504
Marin	\$ 4,557,901
Napa	\$ 2,470,368
San Francisco	\$ 14,882,576
San Mateo	\$ 13,254,947
Santa Clara	\$ 33,257,585
Solano	\$ 7,560,105
Sonoma	\$ 8,734,041
<b>Bay Area Subtotal</b>	<b>\$ 132,192,406</b>

Local Jurisdiction	Population	Gas Tax Subvention (50% County, 50% Pop) *	DIFFERENCE: Gas Tax Subvention vs. Pop. Distribution	Combo Formula: (1/3 Pop., 1/3 Miles, 1/3 Road Maint. Need)**	DIFFERENCE: Combo Formula vs. Pop Distribution
Alameda County (Unincorporated)	\$ 2,583,448	\$ 14,032,189	\$ 11,448,741	\$ 3,055,211	\$ 471,763
Alameda	\$ 1,348,827	\$ 742,791	\$ (606,036)	\$ 1,137,958	\$ (210,869)
Albany	\$ 326,744	\$ 179,936	\$ (146,808)	\$ 272,177	\$ (54,567)
Berkeley	\$ 2,090,525	\$ 1,151,239	\$ (939,286)	\$ 1,923,869	\$ (166,656)
Dublin	\$ 982,853	\$ 541,251	\$ (441,602)	\$ 767,703	\$ (215,150)
Emeryville	\$ 186,032	\$ 102,447	\$ (83,585)	\$ 151,366	\$ (34,666)
Fremont	\$ 3,987,292	\$ 2,195,777	\$ (1,791,515)	\$ 4,037,948	\$ 50,655
Hayward	\$ 2,690,843	\$ 1,481,830	\$ (1,209,013)	\$ 2,451,846	\$ (238,997)
Livermore	\$ 1,513,422	\$ 833,432	\$ (679,990)	\$ 1,997,800	\$ 484,378
Newark	\$ 777,989	\$ 428,434	\$ (349,555)	\$ 792,679	\$ 14,689
Oakland	\$ 7,226,603	\$ 3,979,645	\$ (3,246,958)	\$ 7,152,609	\$ (73,994)
Piedmont	\$ 195,589	\$ 107,709	\$ (87,879)	\$ 238,937	\$ 43,348
Pleasanton	\$ 1,317,358	\$ 725,461	\$ (591,897)	\$ 1,435,262	\$ 117,904
San Leandro	\$ 1,556,560	\$ 857,188	\$ (699,372)	\$ 1,629,059	\$ 72,499
Union City	\$ 1,280,293	\$ 705,049	\$ (575,244)	\$ 1,019,954	\$ (260,339)
<b>Alameda County Total</b>	<b>\$ 28,064,378</b>	<b>\$ 28,064,378</b>	<b>\$ -</b>	<b>\$ 28,064,378</b>	<b>\$ -</b>

Local Jurisdiction	Population	Gas Tax Subvention (50% County, 50% Pop)	Gas Tax Subvention vs. Pop. Distribution	Combo Formula: (1/3 Pop., 1/3 Miles, 1/3 Road Maint. Need)	Combo Formula vs. Pop Distribution
Contra Costa County (Unincorporated)	\$ 2,962,481	\$ 9,705,252	\$ 6,742,771	\$ 3,268,403	\$ 305,922
Antioch	\$ 1,906,042	\$ 1,124,671	\$ (781,371)	\$ 1,902,537	\$ (3,505)
Brentwood	\$ 994,275	\$ 586,678	\$ (407,597)	\$ 888,770	\$ (105,506)
Clayton	\$ 198,669	\$ 117,226	\$ (81,443)	\$ 202,227	\$ 3,558
Concord	\$ 2,218,811	\$ 1,309,223	\$ (909,589)	\$ 2,161,980	\$ (56,832)
Danville	\$ 768,961	\$ 453,730	\$ (315,231)	\$ 819,752	\$ 50,791
El Cerrito	\$ 427,468	\$ 252,230	\$ (175,238)	\$ 321,931	\$ (105,537)
Hercules	\$ 436,039	\$ 257,288	\$ (178,752)	\$ 354,611	\$ (81,428)
Lafayette	\$ 442,710	\$ 261,224	\$ (181,486)	\$ 432,740	\$ (9,970)
Martinez	\$ 657,958	\$ 388,232	\$ (269,726)	\$ 809,347	\$ 151,390
Moraga	\$ 289,801	\$ 170,999	\$ (118,802)	\$ 338,425	\$ 48,624
Oakley	\$ 682,686	\$ 402,823	\$ (279,863)	\$ 700,261	\$ 17,576
Orinda	\$ 327,571	\$ 193,285	\$ (134,286)	\$ 488,070	\$ 160,499
Pinole	\$ 333,449	\$ 196,754	\$ (136,696)	\$ 334,496	\$ 1,047
Pittsburg	\$ 1,190,251	\$ 702,315	\$ (487,937)	\$ 1,046,401	\$ (143,850)
Pleasant Hill	\$ 601,250	\$ 354,771	\$ (246,479)	\$ 638,357	\$ 37,107
Richmond	\$ 1,889,287	\$ 1,114,785	\$ (774,502)	\$ 1,833,450	\$ (55,838)
San Pablo	\$ 523,247	\$ 308,745	\$ (214,502)	\$ 329,236	\$ (194,012)
San Ramon	\$ 1,382,672	\$ 815,854	\$ (566,818)	\$ 1,201,042	\$ (181,629)
Walnut Creek	\$ 1,176,875	\$ 694,422	\$ (482,453)	\$ 1,338,468	\$ 161,593
<b>Contra Costa County Total</b>	<b>\$ 19,410,504</b>	<b>\$ 19,410,504</b>	<b>\$ -</b>	<b>\$ 19,410,504</b>	<b>\$ -</b>
Marin County (Unincorporated)	\$ 1,205,387	\$ 2,278,951	\$ 1,073,563	\$ 1,737,274	\$ 531,887
Belvedere	\$ 37,330	\$ 25,376	\$ (11,954)	\$ 34,974	\$ (2,356)
Corte Madera	\$ 167,041	\$ 113,550	\$ (53,491)	\$ 147,226	\$ (19,815)
Fairfax	\$ 134,358	\$ 91,333	\$ (43,025)	\$ 115,527	\$ (18,831)
Larkspur	\$ 217,307	\$ 147,720	\$ (69,587)	\$ 205,032	\$ (12,275)
Mill Valley	\$ 254,126	\$ 172,748	\$ (81,378)	\$ 260,472	\$ 6,346
Novato	\$ 942,919	\$ 640,971	\$ (301,947)	\$ 768,154	\$ (174,765)
Ross	\$ 43,877	\$ 29,826	\$ (14,050)	\$ 39,866	\$ (4,011)
San Anselmo	\$ 222,992	\$ 151,584	\$ (71,408)	\$ 184,646	\$ (38,345)
San Rafael	\$ 1,042,165	\$ 708,436	\$ (333,729)	\$ 820,385	\$ (221,780)
Sausalito	\$ 128,480	\$ 87,337	\$ (41,143)	\$ 112,380	\$ (16,099)
Tiburon	\$ 161,920	\$ 110,069	\$ (51,851)	\$ 131,964	\$ (29,956)
<b>Marin County Total</b>	<b>\$ 4,557,901</b>	<b>\$ 4,557,901</b>	<b>\$ -</b>	<b>\$ 4,557,901</b>	<b>\$ -</b>
Napa County (Unincorporated)	\$ 473,422	\$ 1,235,184	\$ 761,762	\$ 1,071,102	\$ 597,680
American Canyon	\$ 354,622	\$ 219,347	\$ (135,275)	\$ 240,115	\$ (114,507)
Calistoga	\$ 92,593	\$ 57,272	\$ (35,321)	\$ 68,251	\$ (24,343)
Napa	\$ 1,389,888	\$ 859,696	\$ (530,192)	\$ 962,182	\$ (427,706)
St Helena	\$ 106,744	\$ 66,025	\$ (40,719)	\$ 95,639	\$ (11,105)
Yountville	\$ 53,099	\$ 32,844	\$ (20,255)	\$ 33,079	\$ (20,021)
<b>Napa County Total</b>	<b>\$ 2,470,368</b>	<b>\$ 2,470,368</b>	<b>\$ -</b>	<b>\$ 2,470,368</b>	<b>\$ -</b>
San Francisco	\$ 14,882,576	\$ 14,882,576	\$ -	\$ 14,882,576	\$ -
<b>San Francisco Total</b>	<b>\$ 14,882,576</b>	<b>\$ 14,882,576</b>	<b>\$ -</b>	<b>\$ 14,882,576</b>	<b>\$ -</b>

Local Jurisdiction	Population	Gas Tax Subvention (50% County, 50% Pop.)	Gas Tax Subvention vs. Pop. Distribution	Combo Formula: (1/3 Pop., 1/3 Miles, 1/3 Road Maint. Need)	Combo Formula vs. Pop Distribution
San Mateo County (Unincorporated)	\$ 1,137,223	\$ 6,627,474	\$ 5,490,251	\$ 2,025,594	\$ 888,372
Atherton	\$ 122,056	\$ 66,755	\$ (55,301)	\$ 333,057	\$ 211,001
Belmont	\$ 470,764	\$ 257,472	\$ (213,292)	\$ 549,142	\$ 78,378
Brisbane	\$ 79,921	\$ 43,711	\$ (36,211)	\$ 159,463	\$ 79,542
Burlingame	\$ 526,063	\$ 287,717	\$ (238,347)	\$ 567,270	\$ 41,207
Colma	\$ 26,048	\$ 14,246	\$ (11,802)	\$ 65,387	\$ 39,339
Daly City	\$ 1,862,254	\$ 1,018,511	\$ (843,743)	\$ 836,455	\$ (1,025,798)
East Palo Alto	\$ 512,811	\$ 280,468	\$ (232,342)	\$ 359,989	\$ (152,822)
Foster City	\$ 570,063	\$ 311,781	\$ (258,282)	\$ 341,751	\$ (228,312)
Half Moon Bay	\$ 212,097	\$ 116,001	\$ (96,096)	\$ 204,177	\$ (7,921)
Hillsborough	\$ 200,992	\$ 109,927	\$ (91,065)	\$ 530,670	\$ 329,679
Menlo Park	\$ 585,604	\$ 320,281	\$ (265,323)	\$ 650,861	\$ 65,257
Millbrae	\$ 403,004	\$ 220,413	\$ (182,592)	\$ 480,290	\$ 77,286
Pacifica	\$ 678,497	\$ 371,086	\$ (307,411)	\$ 794,450	\$ 115,953
Portola Valley	\$ 79,675	\$ 43,576	\$ (36,099)	\$ 221,859	\$ 142,184
Redwood City	\$ 1,440,347	\$ 787,760	\$ (652,587)	\$ 1,066,240	\$ (374,107)
San Bruno	\$ 781,597	\$ 427,474	\$ (354,123)	\$ 729,300	\$ (52,298)
San Carlos	\$ 518,302	\$ 283,472	\$ (234,830)	\$ 696,991	\$ 178,690
San Mateo	\$ 1,785,148	\$ 976,340	\$ (808,808)	\$ 1,295,051	\$ (490,097)
South San Francisco	\$ 1,164,995	\$ 637,164	\$ (527,831)	\$ 1,030,555	\$ (134,440)
Woodside	\$ 97,486	\$ 53,318	\$ (44,169)	\$ 316,394	\$ 218,908
<b>San Mateo County Total</b>	<b>\$ 13,254,947</b>	<b>\$ 13,254,947</b>	<b>\$ -</b>	<b>\$ 13,254,947</b>	<b>\$ -</b>
Santa Clara County (Unincorporated)	\$ 1,534,401	\$ 16,628,793	\$ 15,094,391	\$ 3,862,892	\$ 2,328,491
Campbell	\$ 736,682	\$ 386,157	\$ (350,525)	\$ 681,800	\$ (54,882)
Cupertino	\$ 1,051,704	\$ 551,287	\$ (500,417)	\$ 1,021,476	\$ (30,228)
Gilroy	\$ 932,799	\$ 488,958	\$ (443,840)	\$ 924,307	\$ (8,491)
Los Altos	\$ 528,633	\$ 277,101	\$ (251,532)	\$ 573,500	\$ 44,867
Los Altos Hills	\$ 146,801	\$ 76,951	\$ (69,850)	\$ 262,006	\$ 115,204
Los Gatos	\$ 536,887	\$ 281,428	\$ (255,459)	\$ 656,461	\$ 119,573
Milpitas	\$ 1,277,864	\$ 669,836	\$ (608,028)	\$ 1,080,982	\$ (196,882)
Monte Sereno	\$ 60,738	\$ 31,838	\$ (28,900)	\$ 77,665	\$ 16,928
Morgan Hill	\$ 735,309	\$ 385,438	\$ (349,872)	\$ 819,724	\$ 84,414
Mountain View	\$ 1,371,285	\$ 718,806	\$ (652,479)	\$ 1,125,796	\$ (245,489)
Palo Alto	\$ 1,178,002	\$ 617,490	\$ (560,512)	\$ 1,314,751	\$ 136,750
San Jose	\$ 17,890,007	\$ 9,377,659	\$ (8,512,348)	\$ 16,121,123	\$ (1,768,884)
Santa Clara	\$ 2,129,122	\$ 1,116,052	\$ (1,013,070)	\$ 1,876,117	\$ (253,005)
Saratoga	\$ 542,062	\$ 284,140	\$ (257,922)	\$ 811,507	\$ 269,445
Sunnyvale	\$ 2,605,289	\$ 1,365,652	\$ (1,239,638)	\$ 2,047,479	\$ (557,810)
<b>Santa Clara County Total</b>	<b>\$ 33,257,585</b>	<b>\$ 33,257,585</b>	<b>\$ -</b>	<b>\$ 33,257,585</b>	<b>\$ -</b>
Solano County (Unincorporated)	\$ 340,524	\$ 3,780,053	\$ 3,439,528	\$ 1,148,124	\$ 807,599
Benicia	\$ 487,326	\$ 255,156	\$ (232,170)	\$ 498,687	\$ 11,361
Dixon	\$ 337,180	\$ 176,542	\$ (160,638)	\$ 301,436	\$ (35,744)
Fairfield	\$ 1,969,279	\$ 1,031,082	\$ (938,197)	\$ 1,625,452	\$ (343,827)
Rio Vista	\$ 144,197	\$ 75,499	\$ (68,698)	\$ 122,405	\$ (21,792)
Suisun City	\$ 508,428	\$ 266,205	\$ (242,224)	\$ 444,449	\$ (63,979)
Vacaville	\$ 1,666,753	\$ 872,684	\$ (794,069)	\$ 1,414,404	\$ (252,349)
Vallejo	\$ 2,106,418	\$ 1,102,885	\$ (1,003,533)	\$ 2,005,148	\$ (101,270)
<b>Solano County Total</b>	<b>\$ 7,560,105</b>	<b>\$ 7,560,105</b>	<b>\$ -</b>	<b>\$ 7,560,105</b>	<b>\$ -</b>

Local Jurisdiction	Population	Gas Tax Subvention (50% County, 50% Pop.)	Gas Tax Subvention vs. Pop. Distribution	Combo Formula: (1/3 Pop., 1/3 Miles, 1/3 Road Maint. Need)	Combo Formula vs. Pop Distribution
Sonoma County (Unincorporated)	\$ 2,623,259	\$ 4,367,021	\$ 1,743,762	\$ 4,154,412	\$ 1,531,153
Cloverdale	\$ 153,261	\$ 109,526	\$ (43,734)	\$ 124,360	\$ (28,900)
Cotati	\$ 129,289	\$ 92,396	\$ (36,894)	\$ 104,951	\$ (24,339)
Healdsburg	\$ 205,691	\$ 146,995	\$ (58,696)	\$ 183,715	\$ (21,975)
Petaluma	\$ 1,047,903	\$ 748,875	\$ (299,028)	\$ 879,643	\$ (168,259)
Rohnert Park	\$ 722,954	\$ 516,653	\$ (206,301)	\$ 485,129	\$ (237,826)
Santa Rosa	\$ 3,046,046	\$ 2,176,832	\$ (869,214)	\$ 2,232,215	\$ (813,830)
Sebastopol	\$ 132,123	\$ 94,421	\$ (37,702)	\$ 99,676	\$ (32,448)
Sonoma	\$ 192,421	\$ 137,512	\$ (54,909)	\$ 138,326	\$ (54,095)
Windsor	\$ 481,095	\$ 343,811	\$ (137,284)	\$ 331,615	\$ (149,480)
<b>Sonoma County Total</b>	<b>\$ 8,734,041</b>	<b>\$ 8,734,041</b>	<b>\$ -</b>	<b>\$ 8,734,041</b>	<b>\$ -</b>

Notes:

**\* Gas Tax Subvention (50% County, 50% Pop).** This distribution method apportions the funds by population to each county first (as required by statute) and then splits the funds 50/50 with 50% apportioned to the county for county-owned roads and the remainder split between cities based on population. This is the same formula used in the state's gas tax subvention formula for local streets and roads.

**\*\* Combo Formula: (1/3 Pop., 1/3 Miles, 1/3 Road Maint. Need).** This version distributes the funds using a combination formula that incorporates population, road miles and pavement needs with each factor counting 33%. MTC used a similar distribution method to this for federal Surface Transportation Funds prior to OBAG based on the recommendation of Bay Area Public Works directors. The best approach (and the one we used prior to OBAG) would add a fourth "performance" factor to reward jurisdictions that spend their local road funds in the most cost-effective manner - prioritizing an appropriate share for preventive maintenance based on StreetSaver data unique to each jurisdiction. In a four-part formula, each criteria would be worth 25%.



## **Regional Gas Tax Ballot Question**

### **Revenue & Taxation Code 8504**

- (a) Following the adoption by the commission of a regional transportation expenditure plan, the board of supervisors of each county and city and county in the region shall, upon the request of the commission, submit to the voters at a local election consolidated with a statewide primary or general election specified by the commission, a measure, adopted by the commission, authorizing the commission to impose the tax throughout the region.
- (b) The measure may not be grouped with state or local measures on the ballot, but shall be set forth in a separate category and shall be identified as Regional Measure 2.
- (c) Regardless of the system of voting used, the wording of the measure shall read as follows:  
“Shall The Metropolitan Transportation Commission be authorized to impose a tax of \_\_\_\_ per gallon on the sale of gasoline to build and operate transportation projects identified in the expenditure plan adopted by the commission?”
- (d) The commission shall reimburse each county and city and county in the region for the cost of submitting the measure to the voters. These costs shall be reimbursed from revenues derived from the tax if the measure is approved by the voters or, if the measure is not approved, from any funds of the commission that are available for general transportation planning.
- (e) The board of supervisors of a county or city and county may elect not to submit the measure adopted by the commission to the voters if it submits an alternative countywide transportation funding measure to the voters at the same election.
- (Amended by Stats. 1999, Ch. 724, Sec. 13. Effective January 1, 2000.)*