

Agenda Item 5



METROPOLITAN  
TRANSPORTATION  
COMMISSION

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## Memorandum

TO: Bay Area Partnership

DATE: July 15, 2016

FR: Deputy Executive Director, Policy

RE: Plan Bay Area 2040 Draft Investment Strategy

MTC staff have developed Plan Bay Area 2040's draft investment strategy, a set of fiscally constrained transportation activities to cover the 24-year planning horizon of FY 2016-17 to FY 2039-40. We are seeking feedback from the Partnership on the proposed strategy, especially in terms of draft investment levels by category. In October, the Commission will consider this item for approval, alongside the adoption of the Plan Bay Area 2040 preferred scenario.

The draft investment strategy forecasts a total of **\$313 billion** of federal, state, regional, and local transportation revenues over the planning period. This figure includes **\$19 billion** of revenue from upcoming transportation ballot measures (Contra Costa county, Santa Clara county, San Francisco county, BART, and AC Transit). Of this total, staff proposes to invest **\$221 billion (71%)** toward operations and maintenance of the existing system. Additionally, staff proposes to invest **\$56 billion (18%)** to modernize the system, and **\$36 billion (11%)** to expand the system.

### Key Takeaways

- 1. The proposed investment strategy funds preservation of the existing system for all modes, an improvement from Plan Bay Area 2013, but still comes up short on achieving an ideal state of repair.*

The proposed Plan's \$221 billion dollar investment in operations and maintenance includes roughly 40% of both the regional trade-off revenues and upcoming November ballot measures. This funding would slightly improve transit asset condition and pavement condition of local streets and roads, and reflects an increase in funding over the amount in Plan Bay Area 2013. Without the \$7 billion-dollar contribution from the November measures, the region will face a serious challenge simply to operate and maintain the existing system. While \$221 billion fully funds existing transit operations, transit maintenance, and day-to-day operations of local streets and roads, achieving a state-of-good repair (meaning no assets are beyond their useful life) would require an additional \$32 billion.

2. *Compared to Plan Bay Area 2013, the proposed investment strategy substantially increases funding toward transit operations and maintenance, requiring nearly half of the proposed Plan's revenues.*

The proposed Plan's single largest investment is in transit operations and maintenance, comprising \$153 billion. The vast majority of this amount (\$122 billion) is devoted to transit operations, reflecting increases in service since 2010 and increasing costs required to deliver service. Compared to Plan Bay Area (2013), Plan Bay Area 2040 funds 7.5% more revenue vehicle hours, including sizable increases for Caltrain (16%), VTA (15%), small operators (13.2%), and SFMTA (7.1%). This increase in service also requires 25% more revenue.

3. *The proposed investment strategy makes nearly double the investment in modernizing the existing system compared to expanding it, reflecting the growing capacity pressures on our aging infrastructure.*

Staff's current proposal makes a sizable investment- \$56 billion- to modernize the system, comprising enhancements to the existing system to improve the travel experience of hundreds of thousands of travelers. This includes investments in core capacity to increase person throughput and improve reliability, bus rapid transit, climate policy initiatives, bicycle and pedestrian projects, and the adoption of next generation technologies. The draft strategy also makes an important, but considerably lesser investment (\$36 billion) to expand the system, comprising extensions of the transit system and highway and local road expansions.

### **Process for Developing the Investment Strategy**

MTC issued a Plan Bay Area 2040 Call for Projects in September 2015. Subsequently, staff worked with transit operators, local jurisdictions, and Caltrans to develop the Operating and Needs Assessment, an estimation of costs and available revenues for the preservation of the existing transportation system. Staff also worked to develop the plan's revenue forecast, including the breakdown of committed and discretionary revenues.

Most recently, MTC staff evaluated the largest, capacity-increasing projects in the project performance assessment. This assessment identified 11 high-performing projects, which were then prioritized for regional discretionary revenue (e.g. the regional trade-off revenue). MTC staff also worked with congestion management agencies to prioritize local revenue for the remaining projects in the Call.

### **Next Steps**

The MTC Commission is scheduled to consider approval of the Plan Bay Area 2040 preferred scenario and investment strategy in October. Between now and October, MTC staff seeks your input on the draft investment strategy. Staff will also continue to work with the transit operators and CMA staff to refine the details of project and program assumptions.




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Alix A. Bockelman

# Plan BayArea 2040

## Plan Bay Area 2040 Draft Transportation Investment Strategy

Bay Area Partnership  
July 21, 2016



- 1. The proposed Plan funds preservation of the existing system for all modes, an improvement from Plan Bay Area 2013, but still comes up short on achieving an ideal state of repair.**
- 2. Compared to Plan Bay Area 2013, the proposed Plan substantially increases funding toward transit operations and maintenance, requiring nearly half of the proposed Plan's revenues.**
- 3. The proposed Plan makes nearly double the investment in modernizing the existing system compared to expanding it, reflecting the growing capacity pressures on our aging infrastructure.**

# Plan Bay Area 2040 Investment Strategies



**Modernize**

**Operate  
&  
Maintain**

**Expand**

## Three key investment strategies

### 1. Operate and Maintain

- Funds existing transit service & most critical transit capital assets
- Invests in maintaining local streets in “Fair” condition

### 2. Modernize

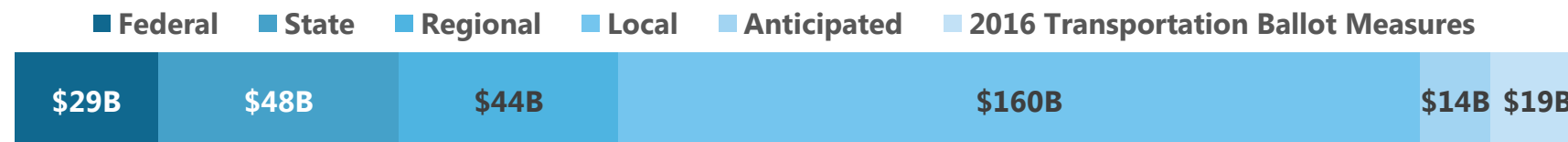
- Invest in Core Capacity transit projects to improve access to jobs
- Invest in transit efficiency/service projects along key corridors
- Enhance roadway efficiency and support goods movement
- Promote safe and environmentally efficient transportation options for all, including seniors, youth, and communities of concern

### 3. Expand

- Build system expansions at strategic points to create optimal multi-modal connections

# Plan Bay Area 2040

## 24 Year Revenue Forecast — \$313 Billion (YOE\$)



**\$313 Billion**

Year of Expenditure \$

**Plan covers 24 year period from FY 2016-17 to FY 2039-40**

- **\$215 B – Committed Revenue**
- **\$30 B – Conditioned Discretionary**
  - **Supports Transit Operations and Maintenance**
- **\$19 B – 2016 Transportation Ballot Measures** (CC, SC, SF, BART, AC Transit)
- **\$49 B – Revenues Available for Trade Offs**



## Revenue Forecast

# Transportation Funding on the Edge in November

### Uses of November Transportation Ballot Measures\*



- Without the revenue from the proposed ballot measures it will be very challenging for the region to fully fund high performing expansion projects while also maintaining the existing transportation system
- Should a measure(s) fail to secure voter approval additional trade off discussions will likely need to be held



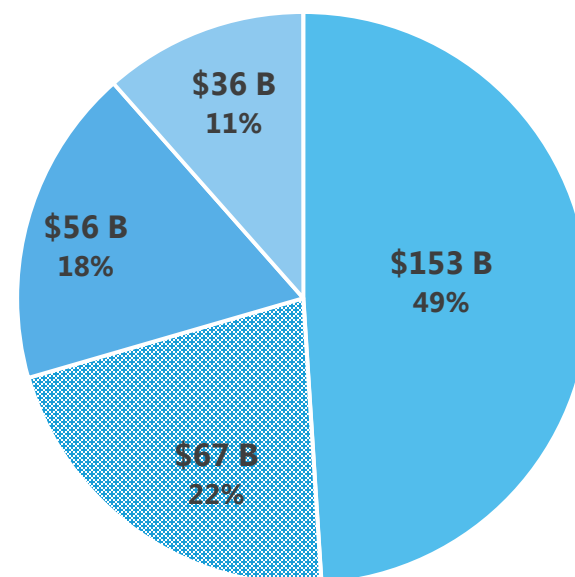
\*Includes proposed measures for AC Transit, BART, Contra Costa, San Francisco, and Santa Clara Counties.

## Introducing the Plan Bay Area 2040 Investment Strategy

# Plan Bay Area 2040 Investments

- **89%** of Plan Bay Area 2040 investments will be invested in operating, maintaining, and modernizing the Bay Area's existing transportation system
  - 49% of all transportation funding over the next 24 years will be used to operate and maintain our transit network at approximately current levels of service and repair
  - 22% of all transportation funding over the next 24 years will be used to maintain local streets, bridges, and highways
  - 18% of all transportation funding over the next 24 years will be used to modernize our transportation systems and create safer transportation options for all
- **11%** of Plan Bay Area 2040 investments will be used to expand our transportation system
  - Expand high capacity transit
  - Improve safety and efficiency of local roadways for all users and modes

Total Plan Bay Area 2040 Expenditures  
In Billions of YOES\$



- Operate and Maintain - Transit
- Operate and Maintain - Roads/Freeways/Bridges
- Modernize
- Expand



# Investing for the Future

## Trade Off Revenues in the Plan – \$49 Billion (YOE\$)

■ Federal ■ State ■ Regional ■ Local ■ Anticipated



**\$49 Billion**  
Year of Expenditure \$

<i>Federal</i>	YOE\$ Billions
Surface Trans. Block Grant (STBG)	<b>\$5.4</b>
Congestion Mit. & Air Quality (CMAQ)	
FTA New/Small Starts/Core Capacity	<b>\$5.0</b>
FTA Bus and Bus Facilities Dis. Program	<b>\$0.4</b>
Federal Freight Programs	<b>\$2.3</b>
<b>State</b>	
Active Trans. Program (State + Reg.)	<b>\$0.6</b>
High Speed Rail	<b>\$0.9</b>
Aff. Housing. & Sustainable. Comm.	<b>\$1.1</b>
Cap & Trade Goods Movement	<b>\$0.5</b>
Transit & Intercity Rail Cap. Program	<b>\$3.0</b>
Low Carbon Transit Ops Pro. Pop-Based	<b>\$0.3</b>
State Transit Assistance Pop-Based	<b>\$1.8</b>
Reg. Trans. Improvement Pro./	
Interregional Trans. Improvement Pro.	<b>\$3.6</b>

<i>Regional</i>	YOE\$ Billions
<i>New Regional 10¢ Gas Tax</i>	<b>\$3.9</b>
<i>\$2 in New Bridge Tolls</i>	<b>\$5.1</b>
Existing Tolls	<b>\$1.3</b>
<b>Local</b>	
Trans. Fund for Clean Air – County Pro.	<b>\$0.3</b>
<b>Anticipated</b>	
<i>Anticipated</i>	<b>\$14.0</b>
<b>Total</b>	<b>\$49.4</b>

# Operate and Maintain



## Investment Approach

- Fully fund existing levels of Transit Service – 7.5% more than in 2013 Plan
- Cover 100% of vehicle and fixed guideway need, reduce the percent of transit assets past useful life to 11.7%
- Raise the regional Pavement Condition Index (PCI) score of local streets from 66 to 69 by prioritizing pavement needs over non-pavement needs
- Significant transit capital, local streets & roads, and state highway O&M shortfalls remain to reach a state of good repair



## Investment in High Performers

- Public transit maintenance



## Total Plan Investment

- **\$221 Billion**
  - *\$18 Billion (Trade Off Investment)*

### Trade Off Revenue Investment Tracker

■ Operate & Maintain    ■ Remaining Trade Off Revenues

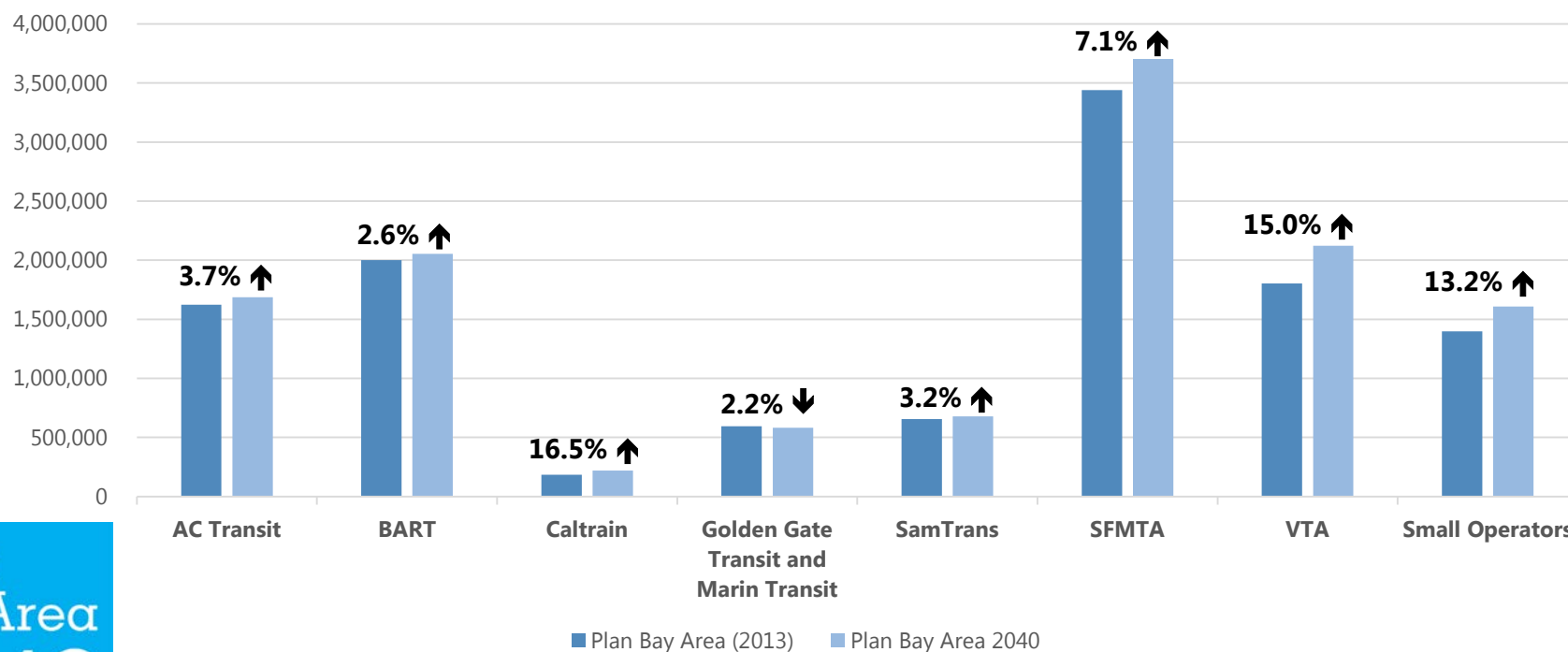


# Operate and Maintain



- While Plan Bay Area 2040 funds **7.5%** more transit service hours than Plan Bay Area (2013), it will cost the region **25%** more in transit operating expenses on a per year basis in YOES\$, continuing the challenging trend identified in the Transit Sustainability Project
- Plan Bay Area (2013) invested **\$114 B** to operate the transit system over **28 years** or **\$4 B per year** in YOES\$
- Plan Bay Area 2040 invests **\$122 B** to operate the transit system over **24 years** or **\$5 B per year** in YOES\$

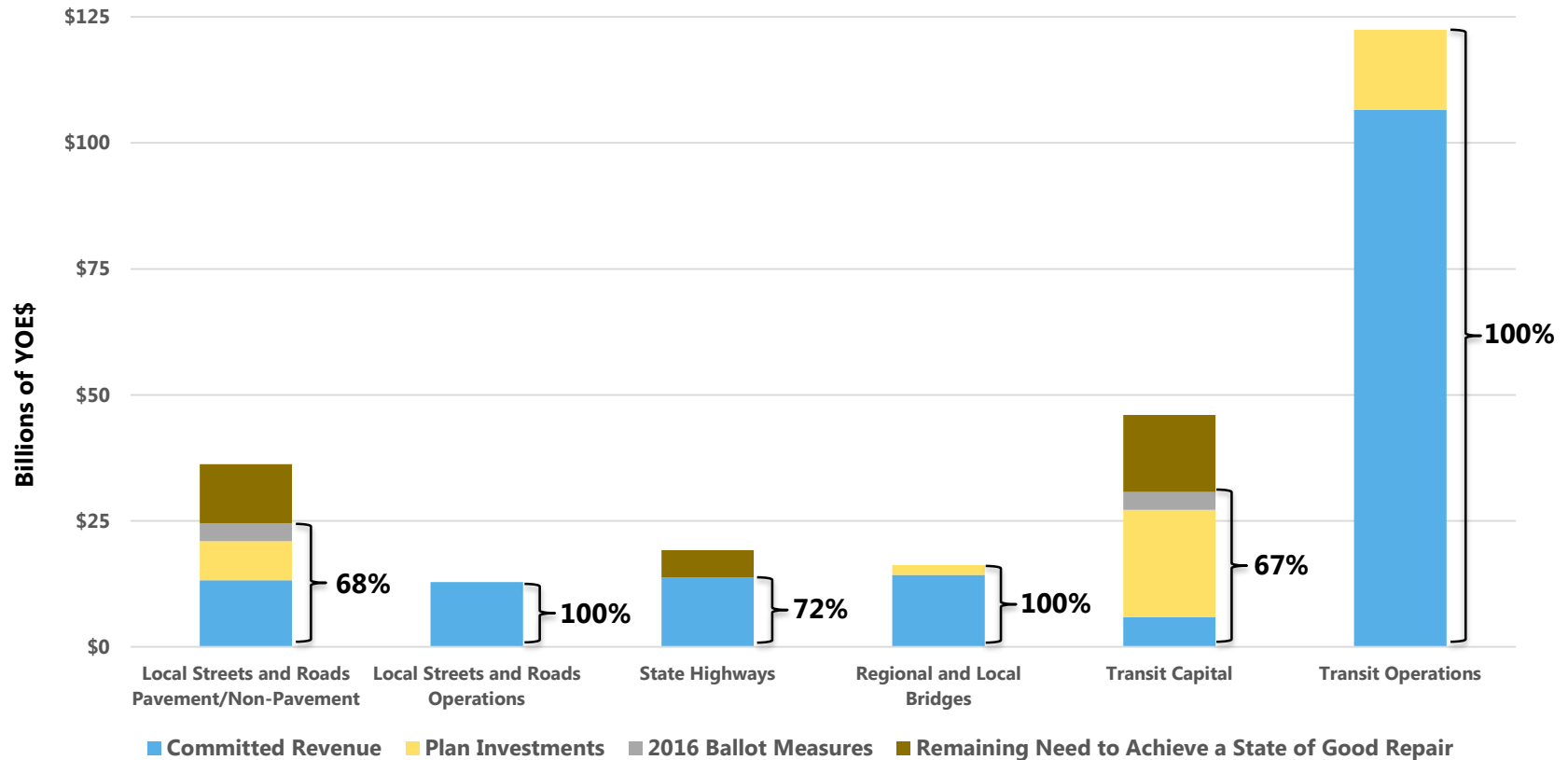
Change in Revenue Vehicle Hours Funded in Plan Bay Area (2013) vs. Plan Bay Area 2040



## Operate and Maintain



- Plan Bay Area 2040 fully funds existing transit operations and day-to-day operations of local streets and roads
- Over \$32 B shortfall remains to bring the system to a state of good repair (will be worse if 2016 measures fail):
  - Local Streets and Roads Need: \$12 B
  - State Highways Need: \$6 B
  - Transit Capital Need: \$15 B



Note: Percentages represent the percent of state of good repair need funded.



# Investment Strategy #2

## Modernize

PTAC 7/18/16: Item 8



### Investment Approach

- Invest in Core Capacity + Transit Efficiency and More Service
- Invest in Roadway Efficiency and Goods Movement
- Invest in Healthy and Safe Communities
- Climate Policy Initiatives
- Planning activities



### Investments in High Performers

#### Total Plan Investment

- \$56 Billion**
  - \$20 Billion (Trade Off Investment)



#### Trade Off Revenue Investment Tracker

■ Operate & Maintain ■ Modernize ■ Remaining Trade Off Revenues



# Investment Strategy #2

## Modernize

PTAC 7/18/16: Item 8

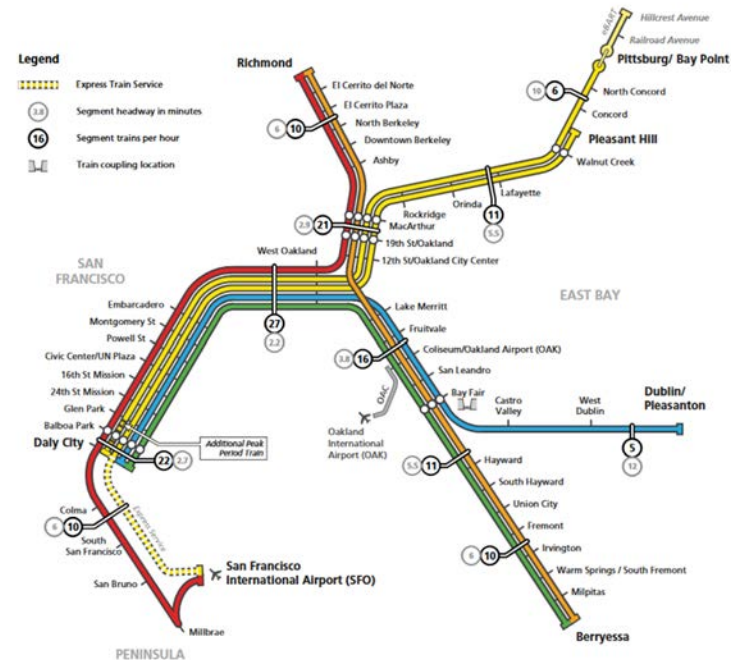


### Key Investments in Modernizing the Transit System

- Caltrain Electrification Phase 1 + CBOSS (\$2.4 B)
- BART Metro/Core Capacity (\$4.2 B)
- Geary Bus Rapid Transit (\$0.4 B)
- Other Transbay Core Capacity Projects (\$4 B)
- San Pablo Bus Rapid Transit (\$0.4 B)
- El Camino Bus Rapid Transit (\$0.3 B)
- Increased Service & Transit Efficiency (\$6.0 B)
- Investments in next generation Clipper and 511 (\$2.2 B)

### Total Plan Investment

- \$20 Billion



## Investment Strategy #2

**Modernize****Key Investments in Modernizing the Roadway and Goods Movement Networks**

- Goods Movement priorities including road, rail, port, and airport projects to increase efficiency and protect competitiveness (\$2.7 B)
- Managed Lanes (conversions) and SF roadway pricing (\$6.8 B)
- Highway Operational Projects (\$7.5 B)
- Advanced Technology (Columbus Day Initiative, Management Systems) (\$2.5 B)

**Total Plan Investment**

- \$19 Billion



## Investment Strategy #2

# Modernize

PTAC 7/18/16: Item 8



### Invest in Healthy and Safe Communities

- Plan invests over \$4.1 Billion in expanding the Bay Area's pedestrian and bicycle networks
  - Build out of the SF Bay Trail
  - Vision Zero to eliminate traffic fatalities
  - County pedestrian and bicycle programs
- An additional \$3.9 Billion will be invested in building multi-modal streets and streetscapes in the Bay Area
- Plan invests over \$2.0 Billion in programs around the region to expand travel options for seniors, persons with disabilities, and low-income communities.
  - Lifeline Transportation Program
  - Mobility Management





## Investment Strategy #2

# Modernize



### Climate Policy Initiatives

- Plan invests in policy initiatives intended to help the region achieve its greenhouse gas emissions reductions.
  - Car Sharing, Vanpool Incentives, Trip Caps
  - Commuter Benefits Programs
  - Electric Vehicle Strategies – Buyback/Purchase Programs
  - Smart Driving Strategy and Technology
- **Total Plan Investment**
  - \$0.74 billion

	2020	2035
	<i>PBA2040</i> per capita GHG reductions (%) <sup>1</sup>	<i>PBA2040</i> per capita GHG reductions (%) <sup>2</sup>
<b>Statutory Target</b>	7	15
<b>Travel model GHG reduction</b>	4.0 - 4.8	2.5 – 8.5
<b>Gap to reach Target</b>	<b>range: 2.2 - 3.0</b>	<b>range: 6.5 – 12.5</b>



<sup>1</sup> Preliminary estimates; based on preliminary model runs

<sup>2</sup> Preliminary estimates; May 2016, Planning Committee

## Expand

### Investment Approach

- Caltrain/HSR Downtown Extension to Transbay Transit Center (\$4.3 B)
- BART to Silicon Valley Phase 2 (\$5.2 B)
- \$3.2 B+ to other transit capital expansions
- Strategic highway expansions and interchanges (\$0.7 B)
- High Speed Rail (HSR) in the Bay Area (Approx. \$8.4 B)
- Managed Lanes (widening) (\$6.2)
- Local Roads (\$4.9 B)
- **\$1 billion contingency reserve for project cost increases**

### Investment in High Performers

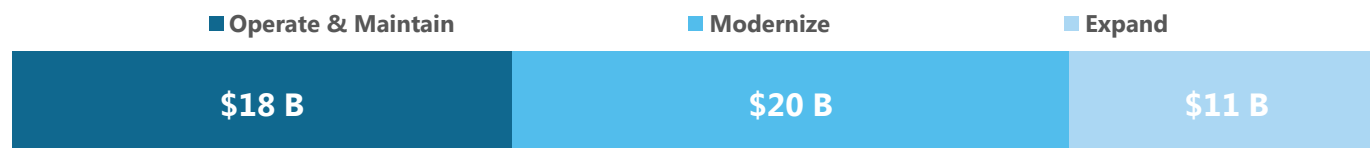
- Caltrain/High Speed Rail Downtown Extension to Transbay Transit Center
- BART to Silicon Valley Phase 2

### Total Plan Investment

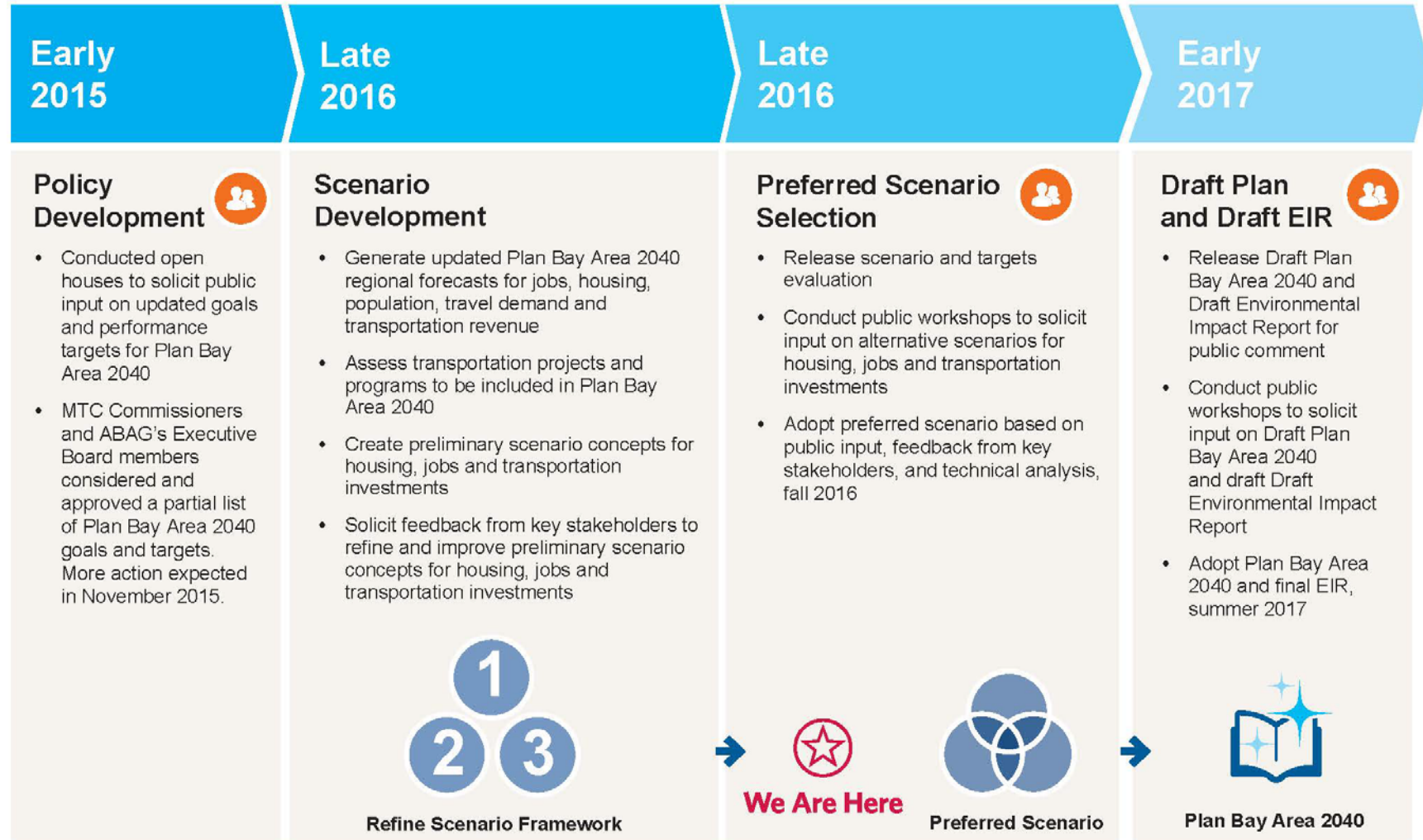
- **\$36 Billion**
  - *\$11 Billion (Trade Off Investment)*



#### Trade Off Revenue Investment Tracker



# Next Steps



**Public Workshops and Outreach**

# Thank you