

Metropolitan Transportation Commission Programming and Allocations Committee

December 2 2013

Item Number 2iii.

Transit Core Capacity Challenge Grant Program

Subject: Proposed Core Capacity Challenge Grant Program, targeting federal, state and regional funds to high-priority transit capital projects between 2015 and 2030.

Background: This item presents a staff proposal to address funding for transit capital replacement and rehabilitation needs as well as for key transit infrastructure enhancements needed to support future transit service expansion. Plan Bay Area identifies a total funding shortfall of \$17 billion over 28 years to achieve an optimal state of good repair for the region's transit system. Further, the Plan's in-fill and transit oriented growth strategy relies on a well maintained transit system to meet performance targets. This item responds to the Plan's overall strategy by identifying funding for the next fifteen years to support transit capital needs for the region's three largest transit operators.

The approximately \$7 billion Core Capacity Challenge Grant proposal:

- Focuses on the San Francisco Municipal Transportation Agency (SFMTA), BART, and AC Transit – the three transit operators that carry over 80% of the region's passengers as well as more than three-quarters of the minority and low-income passengers
- Leverages regional discretionary funds and local contributions, including proposed Cap and Trade revenue
- Accelerates and solidifies funding for fleet replacement projects, and identifies new funding for key enhancement projects
- Requires that the participating operators meet the performance objectives of the Transit Sustainability Project

Additional information is included in the attached memorandum from the Executive Director. Note that this item is related to the Cap and Trade Funding Framework item on this Committee's agenda as well as to the Budget and Long Range Plan Amendment item on today's Bay Area Toll Authority (BATA) Oversight Committee meeting agenda.

This item is for information only; staff expects to return to the Commission in December with a final recommendation.

Issues: None.

Recommendation: Information only.

Attachments: Executive Director's Memorandum (including attachments)



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Memorandum

TO: Programming and Allocations Committee

DATE: November 13, 2013

FR: Executive Director

W. I.

RE: **Core Capacity Challenge Grants: Transit Capital Program**

Plan Bay Area (Plan) identifies a total funding shortfall of \$17 billion over nearly three decades to achieve an optimal state of repair for the region's public transit network. Further, the Plan's in-fill and transit-oriented growth strategy relies on a well-maintained and robust transit system to meet greenhouse gas emissions reduction targets and other Plan performance objectives. In adopting the Plan, the Commission directed staff to work with the region's transit operators and other stakeholders to develop a plan to address funding for transit capital replacement and rehabilitation needs and to expand the funding available to support future increases in transit service. This memorandum responds to that direction with the proposed Core Capacity Challenge Grant Program for high priority transit capital projects.

The Core Capacity Challenge Grant Program:

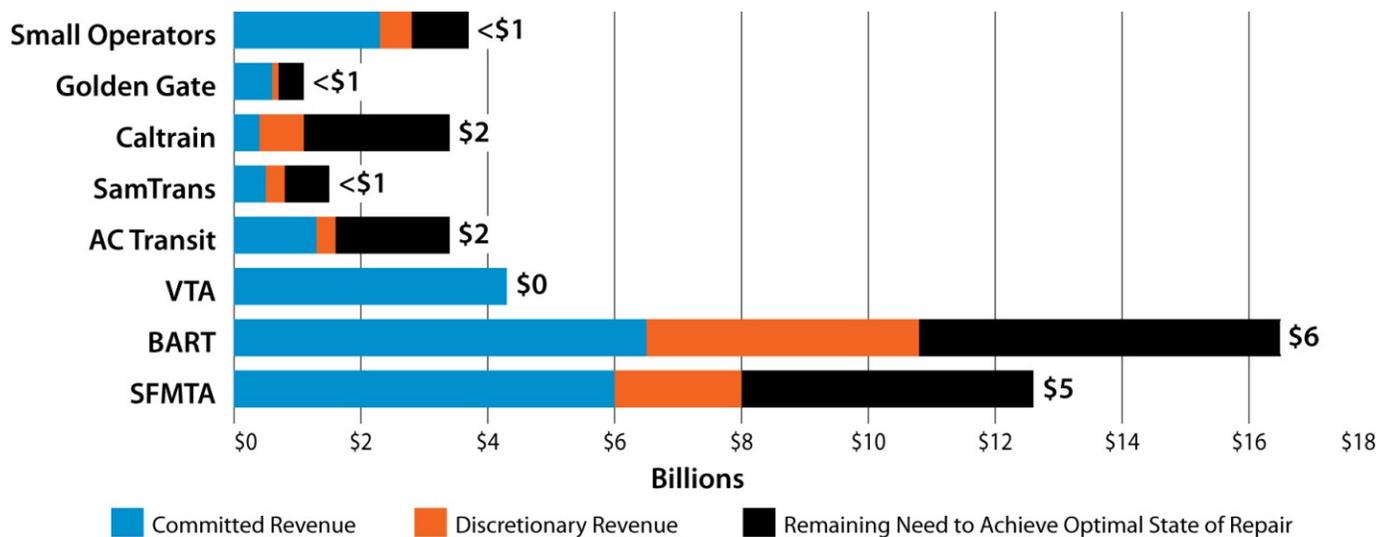
- Focuses on BART, SFMTA, and AC Transit – transit operators that carry over 80% of the region's passengers as well as more than three-quarters of the low-income and minority riders; account for approximately 75% of the Plan's estimated transit capital shortfall; and serve Priority Development Areas (PDAs) that are expected to accommodate the lion's share of the region's housing and employment growth;
- Achieves over \$7 billion in total state of good repair and strategic expansion investments by leveraging other regional discretionary funds and requiring a minimum 30% local match from the three operators;
- Accelerates and makes more certain funding for fleet replacement and other state of good repair projects from Plan Bay Area, including "greening" the fleet;
- Identifies new funding, including Cap and Trade and bridge toll revenues, to respond to the need for strategic capital enhancements in areas of expected high ridership growth; and
- Requires that participating operators meet the Transit Sustainability Project's performance objectives outlined in MTC Resolution No. 4060.

Background

Plan Bay Area continues to emphasize a “fix it first” strategy to ensure that the region directs a majority of funding to maintain existing transportation assets, while also supporting focused growth in areas served by the transportation system over the life of the plan. A well-maintained multimodal transportation system is fundamental to the success of the more compact future land use patterns included in Plan Bay Area.

To that end, Plan Bay Area’s total transit capital investment of \$30 billion in committed and discretionary revenues will be sufficient to fund all revenue vehicle replacements and over three-quarters of fixed guideway and other high-priority needs, while large capital needs remain for other assets such as maintenance facilities and station upgrades. Figure 1 below illustrates the total transit capital needs for all operators, as well as identified funding and remaining shortfalls.

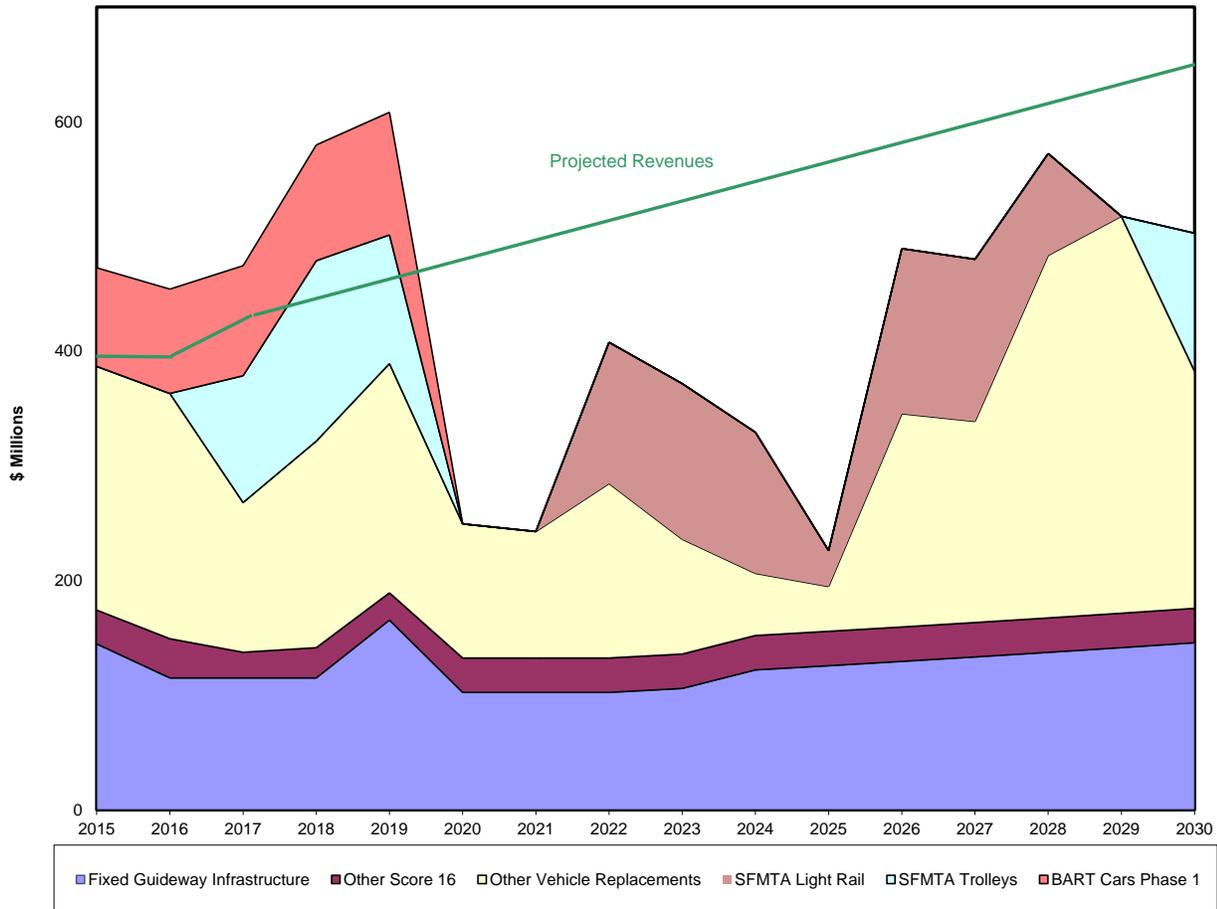
Figure 1. Plan Bay Area Transit Capital Needs, Revenues, and Remaining Need (YOES)



As shown, the capital needs are not uniform across the region’s operators, and are concentrated among the three largest transit operators that serve areas expected to see much of the growth in housing and employment – AC Transit, BART, and SFMTA. In addition, the needs are not spread evenly over the time horizon of the Plan; therefore, replacing large numbers of rail and bus vehicles in the near-term could outpace revenues over the same period if purchased through a pay-as-you-go and short-term programming approach (see Figure 2 on the next page, which does not reflect this proposal).

These needs and timeliness considerations are further compounded by increased ridership demand and capacity constraints expected for the three operators under the Plan’s land use strategy, which will require additional fleet capacity and improved maintenance facilities. Attachment A shows the significant overlap between PDA growth and the AC Transit, BART, and SFMTA’s service areas. The housing and employment growth will increase the demand for transit service in these areas. Over the Plan period, transit ridership in the region is expected to approximately double, from about 1.6 million to 3.0 million typical weekday boardings. Specifically, ridership for SFMTA is expected to increase by 85 percent, BART by nearly 60 percent, and AC Transit by 50 percent.

Figure 2. High Priority Transit Capital Replacement Needs and Revenues



While other areas – such as the Silicon Valley and the Peninsula corridor – will also see significant housing and employment growth, Plan Bay Area included specific investments to improve transit and meet ridership demands in these service areas. For example, the next generation of Bay Area transit expansion includes extending BART from Berryessa into downtown San Jose and to Santa Clara. The Plan also charts a course for electrification of the Caltrain corridor between San Jose and San Francisco; extension of the corridor to the new Transbay Transit Center now under construction in downtown San Francisco; the eventual accommodation of high-speed rail service in the Peninsula rail corridor; and development of new high-speed rail stations in San Jose and Millbrae as well as San Francisco.

Proposal

The Core Capacity Challenge Grant sets forth a \$7.4 billion capital investment strategy over the next 15 years for AC Transit, BART, and SFMTA. The plan focuses on fleet replacement and enhancement, facilities upgrades, and fixed guideway infrastructure projects for the three operators as summarized in Table 1 below. The proposed investment strategy, Attachment B, comprises both local and regional funding contributions at levels to fully fund the set of investments.

The proposal implements the Plan Bay Area vision for transit as follows:

- Solidifies the schedule and accelerates the regional commitment of FTA and matching bridge toll funds through regional financing;
- Proposes new regional funding to fund projects not typically covered through past Transit Capital Priorities programming, including facilities and strategic vehicle expansions that are key to the health of the three systems;
- Establishes a regional advocacy position for a portion of the Federal New Starts program dedicated to core capacity enhancements; and
- Leverages local commitments by requiring a higher than normal match from the three operators participating in the Core Capacity Challenge Grant Program.

Table 1. Proposed Project Investments by Operator, YOY \$ (millions)

Project	Project Cost
BART	
850 Rail Cars (440 cars beyond current funding commitment)	1,446
Train Control Replacement	700
Hayward Maintenance Center Expansion	433
SFMTA	
Fleet Replacement	2,624
Fleet enhance + expand	670
Facilities core improvements	209
AC Transit	
Fleet Replacement	780
Fleet Expansion	90
Facility Replacement/Rehabilitation	268
Financing	200
TOTAL	7,420

Project Investment Detail

As summarized in Table 1 and detailed in Attachment C, the investments would fund fleet replacements in a timely manner and begin to address critical facilities and enhancement projects that were left unfunded in the Plan but will be important if the region is to implement the land use strategy that relies on a robust transit system, especially in the areas served by AC Transit, BART, and SFMTA. The up-front commitment to over a decade of fleet, facilities and guideway system replacements and expansions is expected to save the agencies considerable sums of money, especially for larger procurements where economies of scale exist. In addition to capital costs, there is an assumption that delivering these capital projects on the proposed timeline needed by the operators will require financing, so \$200 million is included toward covering finance costs.

Both BART and SFMTA have near-term vehicle purchase opportunities. BART has an awarded contract and its staff estimates a cost savings of approximately \$125 million if they are able to exercise options to buy more cars as part of their current rail car contract. In addition, BART can save about \$10 million by exercising the next available car option before the end of calendar year 2013. SFMTA expects to open bids for their light rail vehicle procurement project in December and award a contract in 2014.

Revenue Sources and Assumptions

The revenue sources and key assumptions for the \$7.4 billion in local and regional funding are noted below.

- **Local Funding:** Attachment B sets forth \$2.6 billion from various local funding sources and assumes a minimum 30% contribution from each operator.
 - **BART:** For BART, the approximately \$900 million local contribution is comprised of fare revenue and Proposition 1A High Speed Rail connecting operator funds approved for the rail car replacement project. In addition, \$175 million in funding will be provided by the Santa Clara Valley Transit Authority as part of their agreement to contribute to core capacity projects, as BART will soon extend into Santa Clara County and its residents will also benefit from these projects.
 - **SFMTA:** For SFMTA, the nearly \$1.2 billion in local revenues include existing sales tax and revenue bonds as well as anticipated future sales tax, vehicle license fee, and general obligation bonds. A task force has been convened by the San Francisco Mayor's Office and will be finalizing its recommendations by the close of 2013 with the expectation of going to the ballot in 2014 and 2016 to support this local contribution.
 - **AC Transit:** For AC Transit, the assumed local contribution of \$340 million would come from a portion of future Alameda County and Contra Costa sales tax measures and/or parcel tax augmentations for AC Transit operations and maintenance needs.
- **Regional/Other Funding:** Attachment B identifies just over \$4.8 billion in regional/other funding sources to round out the investment strategy, with the majority of the funding coming from two federal sources: Federal Transit Administration (FTA) formula and Surface Transportation Program (STP) flexible highway funds.
 - **FTA/STP Funds:** The program assumes \$3.3 billion in FTA formula and STP funds. These funds have historically supported transit capital replacement through the Transit Capital Priorities process. Generally, the program timeframe has been 2 to 3 years in duration. The proposed Core Capacity Challenge Grant Program investment strategy would extend the commitment for the identified projects to 15 years. The program would also accelerate FTA and STP funds availability through financing as needed; roughly \$200 million is assumed to pay for financing for timely delivery of this aggressive capital program. The proposal acknowledges the needs of other transit operators in the region by retaining an

estimated 33% of expected FTA formula funds for the remaining operators. The proposal also retains funding for on-going fixed guideway priorities for rail and ferry operators.

- AB664 Funds: The program assumes \$152 million in AB664 bridge toll funds. These funds have historically supported transit capital replacement by contributing towards local matching funds for eligible operators in the Transit Capital Priorities process. Generally, the funds are programmed annually. The proposed Core Capacity Challenge Grant Program investment strategy would extend the commitment for the identified projects to 15 years, and would accelerate availability of these toll funds by frontloading AB664 revenues that are available as part of a Bay Area Toll Authority (BATA) revenue transfer to MTC in 2010.
- BATA Project Savings: With the completion of the Regional Measure 1 highway and bridge projects and the opening of the New East Span of the Bay Bridge, BATA project savings are proposed to be directed to the Core Capacity Challenge Grant Program. Staff has determined that these transit projects are eligible bridge improvement projects because they will improve functioning or use of one or more of the state-owned bridges. As such, these project expenditures, in an amount of \$250 million, are proposed to be added to BATA's long-range plan and budget as outlined for information on this month's BATA Oversight Committee agenda.
- SFO Net Operating Revenues: A commitment dating from 1988 and the first rail extension agreement, MTC Resolution 1876, directs \$145 million of the net operating surplus generated by the San Francisco International Airport (SFO) BART Extension to fulfill the remaining SamTrans' capital contribution to the BART system, for the Warm Springs Extension. This proposal would direct these funds to BART's rail car purchase project, which includes rail cars for the Warm Springs extension project. The Warm Springs construction costs were met through other regional funding contributions as part of the 2008 MTC Resolution 3434 Strategic Plan.
- Cap and Trade Revenues: AB 574 (Lowenthal) seeks to reserve California Cap and Trade allowance revenue from transportation fuels for transportation-related expenditures. Plan Bay Area included an estimated \$3.1 billion over the 28-year period as available to the region. While the distribution of funds to the MPO's has not yet been finalized, a draft framework and set of principles for Cap and Trade revenues, including \$0.8 billion for the Core Capacity Challenge Grant program, is provided for information in agenda item 3a.i.
- FTA New Starts Core Capacity: With the enactment of MAP-21, this new category of eligible projects was added to the New Starts Program. Projects eligible for this funding must expand capacity by at least 10% in existing fixed-guideway transit corridors that are already at or above capacity today, or are expected to be at or above capacity within five years. As part of Plan Bay Area's investment strategy, a reserve of \$660 million in New Starts was established for future East Bay and North Bay projects. BART's train control project aligns well

with the intent of this new category of FTA competitive funding and the direction outlined in Plan Bay Area.

Performance Requirements

Plan Bay Area assumed that the recommendations of the Transit Sustainability Project would be implemented to complement cost control and service improvements already implemented by the region's transit operators. In order to qualify for challenge grant funding, this proposal requires AC Transit, BART, and SFMTA to meet the Transit Sustainability Project's performance objectives outlined in MTC Resolution No. 4060 that call for a 5% real reduction in at least one of three performance measures (cost per service hour, cost per passenger or cost per passenger mile) by FY2016-17 and no growth beyond CPI thereafter. Based on the most recent data available for FY2012 in Attachment D, only BART is currently meeting the performance requirement, but SFMTA is moving in a positive direction and all three operators have until FY2016-17 to meet the performance target.

Strategic Review

Staff recommends a strategic review of the Core Capacity Challenge Grant program at least every 5 years to monitor operator project delivery and local contributions. This will also allow staff to address any changes in the demand for capital projects or the revenue landscape. For example, both BART and SFMTA have developed service plans that would require additional rail cars beyond the quantities funded by this proposed program.

Next Steps

This item is for information and discussion this month. Staff is seeking feedback from the Commission, partner agencies, and advisors and plans to return in December with a final recommendation. The proposed action in December is important for BART to realize cost savings associated with exercising options for their rail car procurement and for finalizing revenue measures for the 2014 electoral process for San Francisco and Alameda Counties.



Steve Heminger

- Attachment A: Population Growth in PDAs 2010-2040
- Attachment B: Core Capacity Challenge Grants
- Attachment C: Project Descriptions
- Attachment D: Performance Metrics

SH: AB

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Population Growth in Priority Development Areas, 2010 - 2040

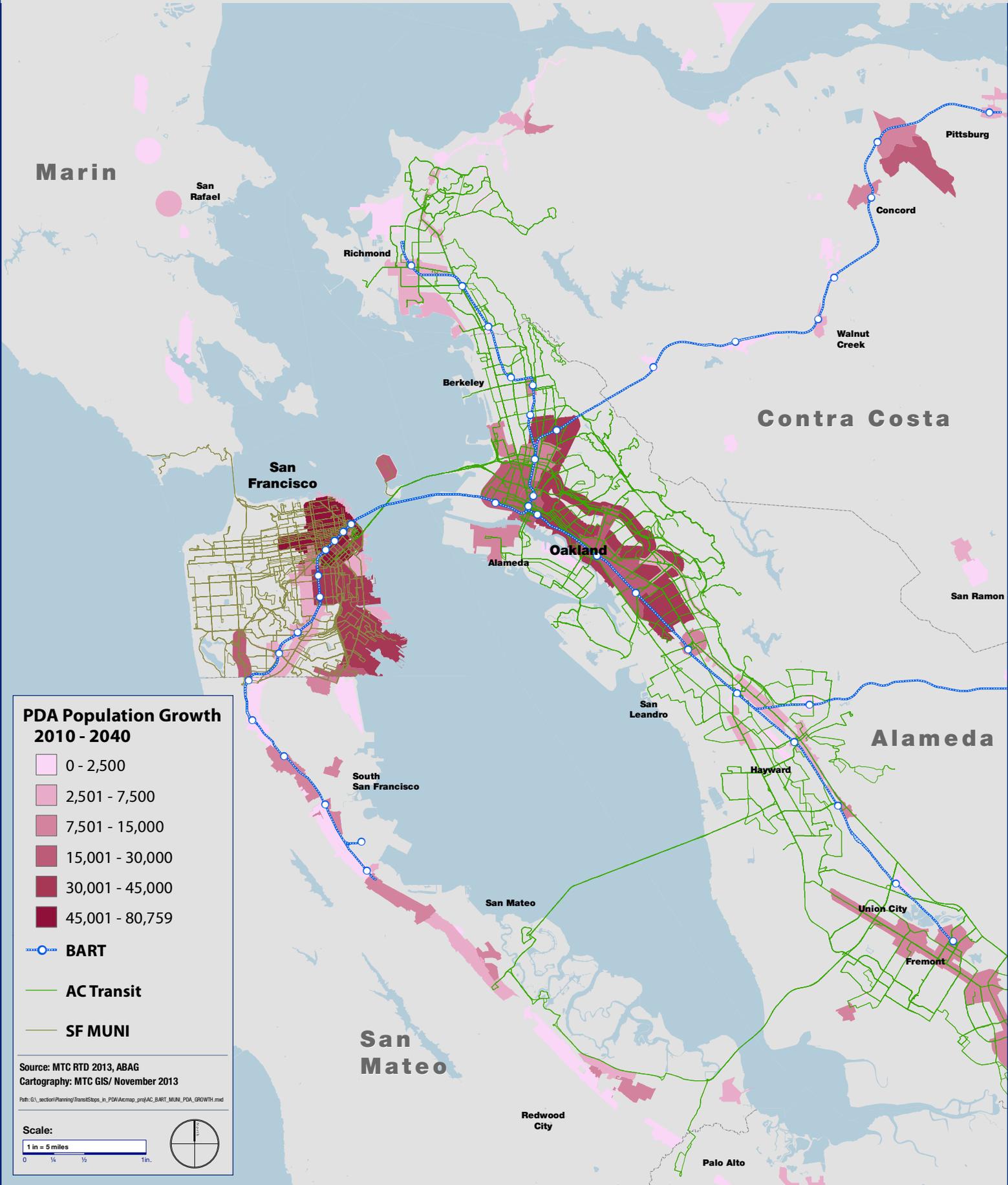


Metropolitan Transportation Commission
 Planning, Financing and Coordinating
 Transportation for the nine-county
 San Francisco Bay Area

ATTACHMENT A

Analytical Services

Geographic Information Systems



PDA Population Growth 2010 - 2040

- 0 - 2,500
- 2,501 - 7,500
- 7,501 - 15,000
- 15,001 - 30,000
- 30,001 - 45,000
- 45,001 - 80,759

BART

AC Transit

SF MUNI

Source: MTC RTD 2013, ABAG
 Cartography: MTC GIS/ November 2013

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Scale:



**Attachment B
Core Capacity Challenge Grants (\$ Millions)**

Project	Project Cost	Proposed Local \$				Funding Sources for Remaining Need						Total Funding
		BART	SFMTA (2)	AL/CC Sales Tax/Parcel Tax	VTA	FTA/STP(4)	AB664 Bridge Tolls	BATA Project Savings	SFO Net Op Revenue (5)	Cap & Trade	Core Capacity New Starts (6)	
850 BART Rail Cars (440 beyond current funding commitment)	1,446	393				743	82	83	145			1,446
BART Train Control	700	267				163				126	144	700
BART Hayward Maint. Center	433	258			175							433
Subtotal BART	2,579	918	-	-	175	906	82	83	145	126	144	2,579
SFMTA Fleet Replacement	2,624		750			1,746	44	84				2,624
SFMTA Fleet enhance + expand	670		270							400		670
SFMTA facilities core improve	209		142							67		209
Subtotal SFMTA (1)	3,504	-	1,162	-	-	1,746	44	84	-	467	-	3,504
AC Transit Fleet Replacement	780			195		477	25	83				780
AC Transit Fleet Expansion	90			40		5				45		90
AC Transit Facility Repl/Rehab	268			106						162		268
Subtotal AC Transit (3)	1,138	-	-	341	-	481	25	83	-	207	-	1,138
Financing	200					200						200
TOTAL	7,420	918	1,162	341	175	3,333	152	250	145	800	144	7,420

(1) SFMTA cost estimates adjusted to use regional cost estimates for buses and LRVs, and converted to year-of-expenditure dollars

(2) Includes SF Mayor's Transportation Task Force plan proposed new funding sources

(3) Assumes 30% local share

(4) Projected FTA/STP Revenues 2015-2030: \$ 7,549

Core Capacity Challenge Grants	\$ 3,133	42%
Core Capacity Financing Costs	\$ 200	3%
BART & SFMTA Fixed Guideway Caps	\$ 1,235	16%
Remaining BART Car Phase 1 Commitment	\$ 481	6%
Other Operators	\$ 2,500	33%
Total	\$ 7,549	100%

(5) SFO Net Operating Revenue satisfies Samtrans buy-in to the BART District originally dedicated to the BART to Warm Springs project.

(6) Proposed from \$660M East and North Bay New Starts Reserve

Attachment C

Core Capacity Challenge Grants – Project Descriptions

BART

BART Railcar Replacement and Expansion would fund the remaining options on BART's railcar procurement contract to purchase 440 new cars, which, together with previously committed funding, would bring BART's fleet to a total of 850 cars: 669 to replace the current fleet, 91 to increase core capacity, 30 for the Warm Springs extension, and 60 for the Berryessa extension. The \$1.45 billion cost is in addition to the \$1.38 billion already committed to the project, including \$871 million in regional funding. BART operates the oldest fleet among major rail operators in the nation, with all of its current fleet either already overdue or due for replacement by 2019.

BART Train Control System involves implementing a new train control system. The current system is aging and needs replacement to restore and retain reliability. A new train control system would increase peak period/peak direction throughput and allow BART to expand its fleet to meet future demand while maintaining service reliability.

BART Hayward Maintenance Center includes improvements to expand the current Hayward Yard by adding storage and transfer/access tracks on the existing BART property and a primary shop, a vehicle-level overhaul shop, a component repair shop, a central warehouse and an expanded shop and storage facility. This project is needed to store and service BART's expanded fleet while maximizing availability, including serving as the primary maintenance shop and storage yard for the Berryessa extension fleet.

SFMTA

SFMTA Fleet Replacement would replace all of SFMTA's vehicles as they reach the end of their useful lives between 2016 and 2030 to maximize availability and reliability, and minimize operating and maintenance costs. SFMTA's fleet included 494 buses, 333 trolleys, 151 light rail vehicles, and 67 paratransit vans. Also included in the project is approximately \$300 million for mid-life overhauls to extend vehicle service life and maintain reliability, and the costs of rehabilitating Muni's cable car and historic streetcar fleets.

SFMTA Fleet Enhancement & Expansion would expand Muni's light rail vehicle fleet by 77 cars: 24 for the Central Subway extension and 53 to increase capacity on existing lines. The project would also fund the increased cost for replacing 110 40' standard buses with 60' articulated buses to increase capacity on high-ridership routes, and the installation of video and data collection systems on Muni vehicles.

SFMTA Facilities Core Improvements provides for reconstruction and renovation of maintenance facilities for increased efficiency and flexibility, such as:

- Muni Metro East (MME) Paint & Body Shop;
- Burke Central Warehouse;
- Woods Central Diesel Bus Maintenance Facility.

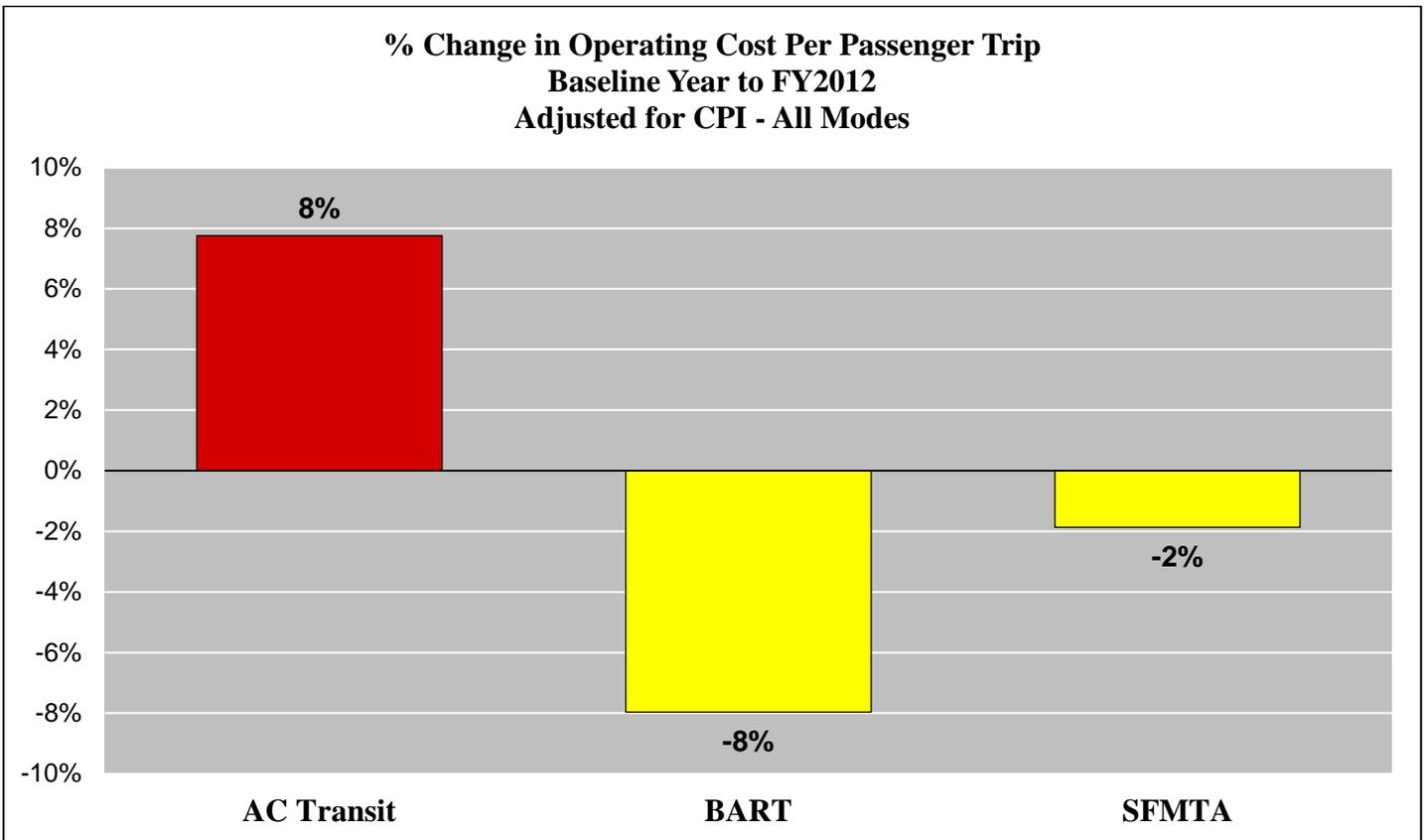
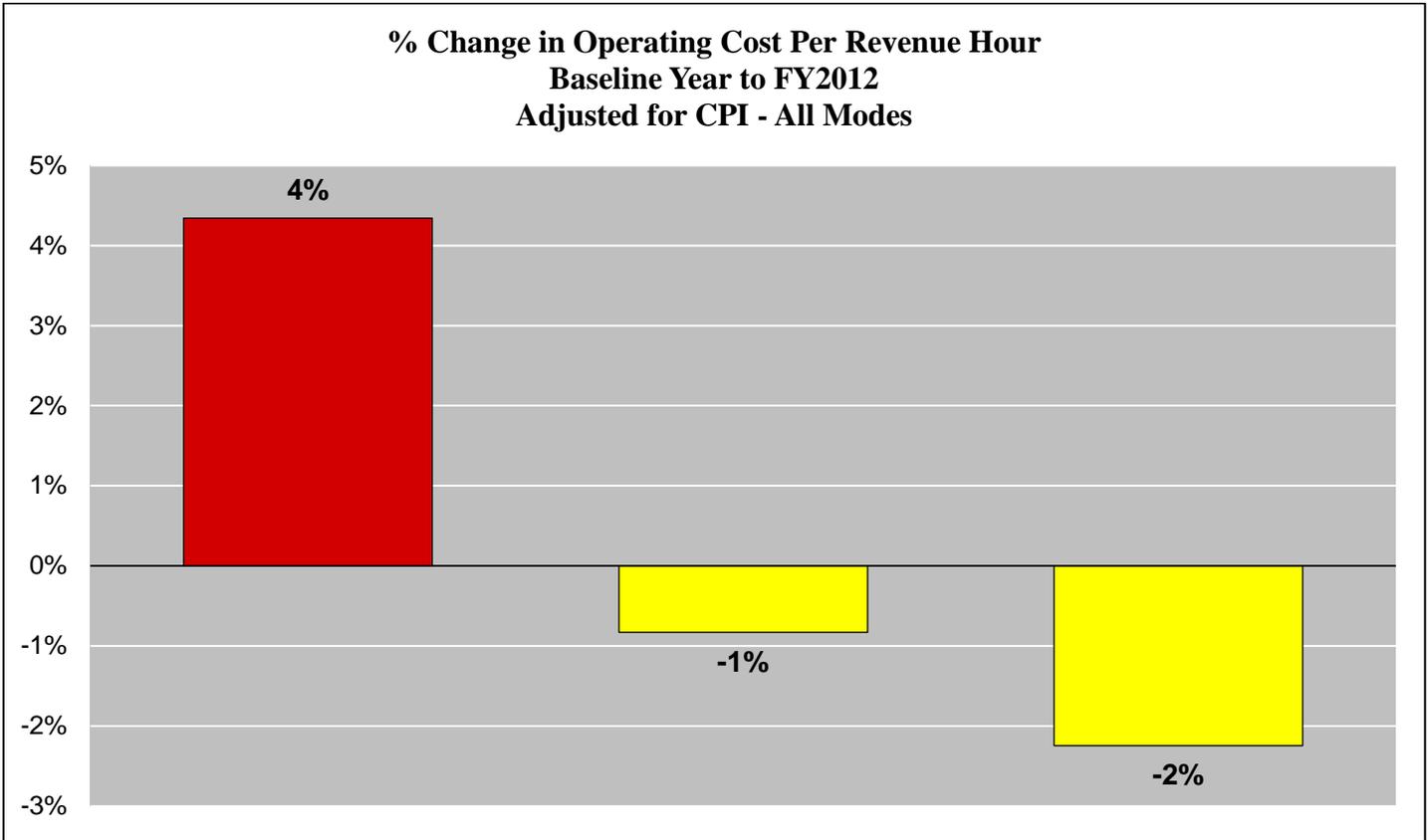
AC Transit

AC Transit Fleet Replacement would replace all of AC Transit's buses as they reach the end of their useful lives between 2015 and 2030 to maximize availability and reliability, and minimize operating and maintenance costs. AC Transit's fleet replacement needs during this period include 150 40' standard transit buses, 57 60' articulated buses, 91 30' buses, 67 40' suburban transit buses, and 39 45' over-the-road coaches.

AC Transit Fleet Expansion would allow for the procurement of 79 Diesel Electric Hybrid buses to implement the service expansions called for under AC Transit's Comprehensive Operations Analysis.

AC Transit Facility Replacement & Rehabilitation includes replacement of equipment such as communications and navigation systems, bus lifts, fuel islands, bus washers, waste treatment systems, and underground storage tanks at AC Transit's maintenance and operations facilities as the equipment reaches the end of its useful life. The funding would also allow for re-opening of the Richmond Maintenance Facility.

Attachment D: Performance Metrics



Source: National Transit Database (NTD), data and analysis for Cost per Passenger Mile still under development.
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