

Metropolitan Transportation Commission Programming and Allocations Committee

November 12, 2014

Agenda Item 3b

Resolution No. 4160

Subject: Transportation Development Act (TDA) Triennial Audit report and approval of the 2014 Productivity Improvement Program (PIP).

Background: **TDA Triennial Audits**

The Transportation Development Act (TDA) requires that MTC administer triennial performance audits of the region’s transit operators. Operators are divided into three groups, with one group audited each year on a three-year cycle. The audits are conducted under contract by an independent auditing firm, Pierlott and Associates, LLC.

The attached presentation summarizes findings for the recently completed audits, focusing on each operator’s six-year trends for certain performance indicators, including cost per hour, cost per passenger and passengers per hour. In summary, service effectiveness and cost efficiency trends were mixed between FY2010-11 and FY2012-13 as shown below:

Passengers per Vehicle Service Hour Trends *Fixed-Route Service*

Agency	Productivity	Ridership	Notes
BART	↑	↑	Slight increase in service, ridership increased
AC Transit	↔	↓	Service and ridership both decreased
CCCTA	↔	↔	Service increased slightly and ridership was unchanged
Petaluma	↑	↑	Slight increase in service, ridership increased
Santa Rosa	↓	↔	Slight increase in service, ridership unchanged
SCT	↔	↓	Service and ridership both decreased

Productivity Improvement Program (PIP)

In accordance with TDA legislation, MTC annually adopts a PIP, a set of projects to be undertaken by transit operators in the region within the next three years to improve productivity and lower operating costs. Historically, projects have been derived from recommendations made in the operators’ most recently completed TDA audits. In coordination with the transit operators, staff is proposing revisions to the PIP development process to incorporate the Transit Sustainability Project performance metrics and targets for the largest seven operators and specific service and institutional recommendations related to the smaller operators.

Large Operators – PIP Projects

The seven large operators (AC Transit, BART, Caltrain, Golden Gate, SamTrans, SFMTA, and SCVTA) have identified achieving a 5% reduction by FY2016-17 in one of the TSP performance metrics as their PIP project. Attachment 1 summarizes progress to date towards achieving this reduction in the three metrics: Cost per Revenue Hour, Cost per Passenger or Cost per Passenger Mile. Six of the seven operators have achieved a 5% reduction against the baseline for FY2012-13 in at least one of two metrics; operating costs per passenger or operator cost per passenger mile. Notably, the operators aren't seeing significant reduction in operating cost per hour. Additionally, the agencies have submitted annual updates to their TSP strategic plans that identify strategies to continue progress towards achieving the 5% reductions by FY2016-17 and beyond.

In summary, operators are achieving the 5% reduction due to strong ridership. Cost control, a major focus of the TSP, remains a concern. Achieving both higher ridership and better cost control is the key to a more sustainable future for Bay Area public transit.

Small Operators – PIP Projects

Staff worked with the smaller operators on ways to streamline the PIP and TSP process, incorporating coordination initiatives already underway at the agencies. The smaller operators have drawn upon recommendations from the TSP or other agency plans to improve productivity or lower operating costs. Many projects are based upon the recommendations contained in the TSP.

A finding that an operator has made a reasonable effort in implementing its PIP project(s) is required before allocating the TDA or State Transit Assistance (STA) funds to the operator. The findings relative to FY2014-15 PIP projects will pertain to the allocation of FY2015-16 funds.

Attachment 2 summarizes the current PIP projects. Attachment A to Resolution No. 4160 provides a more detailed description of all PIP projects, including project description, goals and estimated completion date.

Issues: None.

Recommendation: Refer MTC Resolution No. 4160 to the Commission for approval

Attachments: Attachment 1 – Large Operators – TSP Performance Metric Summary
Attachment 2 – List of Operators and PIP Projects
MTC Resolution No. 4160

**Attachment 1
Large Operators – TSP Performance Metrics and Targets
FY2011-12 and FY2012-13 Performance Vs. Baseline Year**

Operating Cost per Vehicle Service Hour

Transit Operator	Baseline Highest Year		Assessment Years		Percent Change from Highest		FY 2016-17 Target (a)
	Year	Performance	FY2011-12	FY2012-13	FY 2011-12	FY 2012-13	
AC Transit	FY2010-11	\$164.64	\$172.11	\$168.16	4.5%	2.1%	\$156.41
BART	FY2009-10	\$269.64	\$264.63	\$275.83	-1.9%	2.3%	\$256.16
Caltrain*	FY2010-11	\$335.69	\$345.33	\$446.39	2.9%	33.0%	\$318.90
GGBHTD	FY2010-11	\$249.09	\$254.55	\$242.57	2.2%	-2.6%	\$236.64
SFMTA	FY2009-10	\$198.84	\$195.91	\$193.16	-1.5%	-2.9%	\$188.90
SamTrans**	FY2009-10	\$152.12	\$154.02	\$173.09	1.2%	13.8%	\$144.51
VTA	FY2010-11	\$180.63	\$182.60	\$184.80	1.1%	2.3%	\$171.60

* NTD reporting direction to Caltrain varied over reporting period related to shuttle system hours and costs, resulting in a significant increase for FY2012-13 cost per hour. Caltrain rail service increase for FY2012-13 compared to baseline year was 3.9%.

** SamTrans has submitted a revision to NTD adjusting the vehicle service hours reported that may change the FY2016-17 target. Staff may revise once final FY2012-13 NTD data is made available.

Operating Cost per Passenger

Transit Operator	Baseline Highest Year		Assessment Years		Percent Change from Highest		FY 2016-17 Target (a)
	Year	Performance	FY2011-12	FY2012-13	FY 2011-12	FY 2012-13	
AC Transit	FY2008-09	\$5.72	\$6.05	\$5.74	5.9%	0.5%	\$5.43
BART	FY2008-09	\$4.72	\$4.31	\$4.23	-8.7%	-10.5%	\$4.49
Caltrain	FY2009-10	\$8.09	\$7.04	\$6.17	-13.1%	-23.8%	\$7.69
GGBHTD	FY2010-11	\$11.69	\$11.42	\$11.30	-2.3%	-3.3%	\$11.10
SFMTA	FY2009-10	\$3.18	\$2.98	\$2.98	-6.4%	-6.1%	\$3.02
SamTrans	FY2010-11	\$8.35	\$8.85	\$8.84	6.0%	5.8%	\$7.93
VTA	FY2009-10	\$7.28	\$7.14	\$7.17	-1.9%	-1.5%	\$6.91

Operating Cost per Passenger Mile

Transit Operator	Baseline Highest Year		Assessment Years		Percent Change from Highest		FY 2016-17 Target (a)
	Year	Performance	FY2011-12	FY2012-13	FY 2011-12	FY 2012-13	
AC Transit	FY2009-10	\$1.96	\$1.70	\$1.53	-13.0%	-21.9%	\$1.86
BART	FY2008-09	\$0.38	\$0.33	\$0.32	-11.8%	-13.6%	\$0.36
Caltrain	FY2007-08	\$0.35	\$0.37	\$0.30	5.5%	-15.4%	\$0.33
GGBHTD	FY2008-09	\$1.20	\$1.02	\$1.03	-14.9%	-14.1%	\$1.14
SFMTA	FY2009-10	\$1.52	\$1.42	\$1.42	-6.6%	-6.6%	\$1.44
SamTrans	FY2010-11	\$1.74	\$1.74	\$1.79	0.0%	2.8%	\$1.66
VTA	FY2009-10	\$1.54	\$1.32	\$1.35	-14.1%	-12.1%	\$1.46

Note: shading indicates five percent or greater real reduction in performance

(a) Equals five percent reduction from baseline highest year in FY2012-13 dollars.

Attachment 2 – Summary of PIP Projects

Large Operators

Agency	Project	Estimated Completion Date
AC Transit, BART, Caltrain, Golden Gate Transit, SamTrans, SFMTA, SCVTA	Transit Sustainability Project (TSP) – Achieve a 5% reduction in at least one of the Resolution 4060 – TSP Performance Measures for the following operators:	End of FY2016-17 and annually thereafter

Small Operators

Regional Projects

Agency	Project	Estimated Completion Date
Various – See MTC Resolution No. 4160, Attachment A	Implement Clipper	Fall/Winter FY 2014-15
WETA	Fare Program Transfer Policy	January 2015
	Alameda Terminals Access Improvements	November 2015
	BayAlerts messaging system	December 2014

Alameda County

Agency	Project	Estimated Completion Date
LAVTA	Comprehensive Operational Analysis (Local and Corridor/Sub-Regional Bus Study)	December 2015
	Transit Asset Management Plan	December 2015
Union City	Install Automatic Vehicle Location (AVL) Technology	March 2015
	Bus Schedule and Service Revisions	February 2015

Contra Costa County

Agency	Project	Estimated Completion Date
CCCTA, ECCTA, WestCat in partnership w/ CCTA	Countywide Express Bus Study	September 2015
ECCTA	Coordinate intake and processing of paratransit applications in Contra Costa County	June 2015

Marin County

Agency	Project	Estimated Completion Date
Marin Transit	Mobility Management Programs Cost Effectiveness	January 2015

Napa County

Agency	Project	Estimated Completion Date
NCTPA	Bus Mobility Device Retrofit	October 2014
	Computer Aided Dispatch/ AVL system	April 2015
	Security Cameras on VINE Transit Vehicles	February 2015

Solano County

Agency	Project	Estimated Completion Date
Solano Transportation Authority for all Solano County Operators	Solano County Mobility Management Program	January 2015
	I-80/I-680/I-780/State Route 12 Transit Corridor Study Update	June 2015
Rio Vista	Improve service efficiency and effectiveness	September 2014
SolTrans	AVL Implementation	October 2015
	Restructure fixed route service	August 2015
City of Vacaville	Research Call-n-Ride System	January 2015
	Investigate Deviated Fixed Route in Lesiure Town	January 2015
	Monthly Pass Rewards Program	August 2014

Sonoma County

Agency	Project	Estimated Completion Date
City of Petaluma	AVL Implementation	October 2015
Santa Rosa	Comprehensive Operational Analysis and Service Plan	October 2015
	Implementation of Paratransit Efficiency Review Tier One Recommendations	July 2015
Sonoma County	Transit Asset Management Plan Implementation	April 2016

Date: November 19, 2014
W.I.: 1514
Referred By: PAC

ABSTRACT

Resolution No. 4160

This resolution adopts MTC's FY2014-15 Productivity Improvement Program (PIP).

Further discussion of this action is contained in the Programming and Allocation's Summary Sheet for November 12, 2014.

Date: November 19, 2014
W.I.: 1514
Referred By: PAC

Re: MTC Productivity Improvement Program

METROPOLITAN TRANSPORTATION COMMISSION
RESOLUTION NO. 4160

WHEREAS, Public Utilities Code (PUC) section 99244 provides that each transportation planning agency shall annually identify, analyze, and recommend potential productivity improvements which could lower the operating costs of transit operators within the area under its jurisdiction; and

WHEREAS, as provided for in Government Code sections 66500 et seq., the Metropolitan Transportation Commission (MTC) is the regional transportation planning agency for the San Francisco Bay Area; and

WHEREAS, PUC section 99244 provides that recommendations for improvements and productivity shall include, but not be limited to, those recommendations related to productivity made in the triennial performance audits of transit operators conducted pursuant to PUC section 99246; and

WHEREAS, in accordance with PUC section 99244, MTC is required each fiscal year, to make a finding that a transit operator has made a reasonable effort in implementing productivity improvement recommendations prior to approving the allocation of Transportation Development Act (TDA) funds in an amount greater than was allocated to the operator in the preceding fiscal year; and

WHEREAS, in accordance with PUC section 99314.7, MTC is required each fiscal year, to make a finding that a transit operator has made reasonable effort in implementing productivity improvements pursuant to PUC section 99244, prior to approving the allocation of State Transit Assistance (STA) funds to the operator for operating purposes; and

WHEREAS, in accordance with PUC section 99233.2, MTC may support the regional transportation planning process by providing technical assistance funding to transit operators or other entities to implement transit productivity improvements; now, therefore, be it

RESOLVED, that MTC adopts the productivity improvement projects set forth in Attachment A to this resolution, and incorporated herein by reference; and

RESOLVED, that MTC finds that all transit operators identified in Attachment A have made reasonable effort in implementing productivity improvements and are eligible for allocations of TDA and STA funds next fiscal year in accordance with PUC sections 99244 and 99314.7.

METROPOLITAN TRANSPORTATION COMMISSION

Amy Rein Worth, Chair

The above resolution was adopted by the Metropolitan Transportation Commission at a regular meeting of the Commission held in Oakland, California, on November 19, 2014.

Date: November 19, 2014
W.I.: 1514
Referred By: PAC

Attachment A
Resolution No. 4160
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Large Operators

Transit Operator: AC Transit, BART, Caltrain, Golden Gate Transit, SamTrans, SFMTA, SCVTA

Project Title: Transit Sustainability Project – Performance Measures

Project Goal: Progress towards achieving a 5% reduction by FY2016-17 in at least one of the three performance measures outlined in MTC Resolution 4060.

Project Description: MTC Resolution No. 4060 established performance measures and targets for the largest seven Bay Area transit operators to achieve a five percent (5%) reduction by FY2016-17 in one of three performance measures and with no growth beyond the Consumer Price Index (CPI) thereafter. These measures are:

- Cost Per Vehicle Service Hour;
- Cost Per Passenger; and
- Cost per Passenger Mile.

Each agency adopted a strategic plan in FY2012-13 that described how the agency intends to meet one or more of the performance targets. Beginning in FY2013-14, each agency is required to submit performance data on all three measures and targets as part of MTC's ongoing monitoring of progress towards meeting the targets.

Estimated Completion Date: End of FY 2016-17 and annual updates thereafter.

Small Operators

Regional

Transit Operator: Various (see below)

Project Title: Implement Clipper

Project Goal: Make electronic fare payment available on small operators to make fare payment easier.

Project Description: The Clipper program is the San Francisco Bay Area's regional smart card-based fare payment system. Clipper is the all-in-one transit card that keeps track of any passes, discount tickets, ride book and cash value that you load onto it while applying all applicable fares, discounts and transfer rules.

Estimated Revenue Ready Date:

Operator	Estimated Revenue Ready Date
CCCTA/County Connection	Fall 2015
ECCTA/Tri Delta	Fall 2015
FAST	Fall 2014
LAVTA	Fall 2015
NCTPA (VINE only)	Fall 2014
Petaluma	Winter 2015
Santa Rosa	Winter 2015
Soltrans	Fall 2014
Sonoma County Transit	Winter 2015
Union City	Spring 2016
Vacaville	Fall 2014
WestCAT	Fall 2015

Transit Operator: Water Emergency Transportation Authority (WETA)

Project Title: Fare Program Transfer Policy

Project Goal: Encourage bus-to-ferry transfer at origin stations throughout the WETA system.

Project Description: Adopt WETA Fare Program Transfer Policy to reimburse ferry riders the cost of their bus trip to the terminal, reducing the overall cost of a linked transit trip. The cost for the transfer will be split between WETA and the terminal-serving transit agency.

Estimated Completion Date: January 2015

Transit Operator: Water Emergency Transportation Authority (WETA)

Project Title: Alameda Terminals Access Improvements

Project Goal: Improve opportunities for accessing both ferry terminals in Alameda, encouraging non-automotive modes such as transit, walking and biking.

Project Description: The Alameda Terminals Access Plan, currently underway and being developed, will identify a series of capital and programmatic improvements to encourage more riders to take the ferry in Alameda. The Access Improvements will likely range from bike lane gap closures, bicycle parking, pedestrian safety improvements and bus routing and scheduling changes.

Estimated Completion Date: November 2015

Transit Operator: Water Emergency Transportation Authority (WETA)

Project Title: BayAlerts messaging system

Project Goal: Improve the delivery of service alerts and ferry system news to our passengers through the deployment BayAlerts.

Project Description: BayAlerts is an internet based communication system enabling WETA to provide route specific information such as service alerts and system news to passengers. The BayAlerts messaging system was launched in July 2014. Over the next six months, staff will continue to monitor the system's performance and make modifications based on passengers' and administrator's experiences.

Estimated Completion Date: December 2014

Alameda County

Transit Operator: Livermore Amador Valley Transit Authority (LAVTA)

Project Title: Comprehensive Operational Analysis (Local and Corridor/Sub-Regional Bus Study)

Project Goal: Evaluate all local and express bus service operated by LAVTA for productivity and efficiency; determine gaps in service provided; make recommendations for adjustments.

Project Description: Develop an RFP and obtain project consultant to conduct study. Coordinate a technical advisory group to provide feedback on analysis. Conduct significant public outreach to gather feedback on existing and potential route structures. Identify improvements in services that can be implemented at no additional cost; look for future opportunities to expand service.

Estimated Completion Date: December 2015

Transit Operator: Livermore Amador Valley Transit Authority (LAVTA)

Project Title: Transit Asset Management Plan

Project Goal: Ensure LAVTA is in compliance with MAP-21 and MTC for transit asset management plan.

Project Description: Work with MTC to explore options for transit asset management, including attending training and local and regional meetings regarding transit asset management. Develop or participate in developing MAP-21 compliant transit asset management plan. Accept and implement plan in accordance with required timeline.

Estimated Completion Date: December 2015

Transit Operator: Union City

Project Title: Install Automatic Vehicle Location (AVL) Technology

Project Goal: Enhance service performance via remote system monitoring and providing real-time information to customers.

Project Description: Install a cloud-based AVL system that can be used to monitor vehicles by transit agency. System will also provide public access to passengers can monitor vehicles for trip planning purposes. All vehicle information will be compatible with 511.org trip planner and Google Transit.

Estimated Completion Date: March 2015

Transit Operator: Union City

Project Title: Bus Schedule and Service Revisions

Project Goal: Increase overall ridership productivity on Union City Transit.

Project Description: Service Hours will be redistributed from underperforming pilot project routes back to trunk-line service routes.

Estimated Completion Date: February 2015

Contra Costa County

Transit Operator: Central Contra Costa Transit Authority/ County Connection
Eastern Contra Costa Transit Authority/Tri-Delta
Western Contra Costa Transit Authority (WestCAT)

Project Title: Countywide Express Bus Study

Project Goal: Evaluate express bus services operated within Contra Costa County and determine gaps and service improvements in light of demographic and freeway system changes

Project Description: Work with Contra Costa Transportation Authority to obtain project consultant and conduct study of express bus service operating in Contra Costa. Participate in technical advisory committee and provide data necessary for analysis. Identify future improvements to system that may be funded with new sales tax measure funds.

Estimated Completion Date: September 2015

Transit Operator: Eastern Contra Costa Transit Authority/Tri-Delta

Project Title: Coordinate intake and processing of paratransit applications in Contra Costa County

Project Goal: Increase passenger productivity and improve cost effectiveness of the paratransit service.

Project Description: Work with other bus operators in CC County to standardize and economize the application, acceptance and approval process for potential paratransit users applying under ADA guidance.

Estimated Completion Date: June 2015

Marin County

Transit Operator: Marin Transit

Project Title: Mobility Management Programs Cost Effectiveness

Project Goal: To provide low cost convenient mobility solutions to Marin County seniors, disabled and low-income residents.

Project Description: Evaluate usage and costs on Marin Transit's two most popular mobility programs: Marin Access paratransit and Catch-A-Ride subsidized taxis. Through incentives, outreach and pricing, manage customer behavior to ensure that mobility is provided in a way that controls costs while continuing to offer service options.

Estimated Completion Date: January 2015

Napa County

Transit Operator: Napa County Transportation and Planning Agency (NCTPA)

Project Title: Bus Mobility Device Retrofit

Project Goal: Increase fixed route public transit efficiency by installing new securement devices on buses for scooters and wheelchairs to speed up passenger boarding and on-time performance.

Project Description: The service area has a significant and growing population of senior citizens using large scooters and wheelchairs that take a significant amount of time to secure (4 – 7 min) which slow down routes and has a measurable negative impact on on-time performance. The project will upgrade securement devices in buses, replacing them with Q'straint PODS. With these devices, virtually any mobility device can be secured in under 60 seconds.

Estimated Completion Date: October 2014

Transit Operator: Napa County Transportation and Planning Agency (NCTPA)

Project Title: Computer Aided Dispatch/ Automatic Vehicle Locator system

Project Goal: AVL and CAD capabilities will provide the agencies with an essential tool to help improve on-time performance, improve dispatch reliability and efficiency, increase ridership, improve scheduling and planning, and improve data management and reporting.

Project Description: Napa County Transportation and Planning Agency has identified the need to implement technological tools to assist in managing their operations and serving their customers through the collection, analysis and dissemination of reliable data on its existing fleet of transit vehicles. Based on this high priority need, Napa VINE will deploy a state-of-the-art Automatic Vehicle Location (AVL) System and Computer-Aided Dispatch (CAD) for their fixed route and demand response fleets of vehicles. All vehicle information will be compatible with 511.org trip planner and Google Transit.

Estimated Completion Date: April 2015

Transit Operator: Napa County Transportation and Planning Agency (NCTPA)

Project Title: Security Camera's on VINE Transit Vehicles

Project Goal: The purpose of the Bus CCTV System will be to act as a deterrent against illegal or improper behavior on-board the bus (such as vandalism, theft, assault, etc.), and to provide an investigative tool in the case of the occurrence of any of the aforementioned activities as well as incidents such as injury claims, accident claims, and general customer complaints.

Project Description: The Bus CCTV System shall monitor and record video, audio and selected auxiliary equipment onboard the transit vehicles. The system shall include all hardware, software, and cable necessary for the successful installation of Bus CCTV systems in accordance with this specification; including but not limited to all Digital Video Recorders (DVRs), cameras, microphones, Global Positioning System (GPS) information, onboard wireless and other onboard components.

Estimated Completion Date: February 2015

Solano County

Transit Operator: Solano Transportation Authority for all Solano County Operators
(Dixon, FAST, Rio Vista, Soltrans, Vacaville)

Project Title: Solano County Mobility Management Program

Project Goal: In Solano County, a Mobility Management Plan is being developed for Seniors, People with Disabilities and the Low-Income. Four program elements are in the process of development that complement one another and are aimed to assist individuals find the right transportation to maintain and/or develop their mobility.

Project Description: Several studies were conducted in Solano County in coordination with the transit operators and advisory committees that included extensive community outreach and surveys to identify transportation gaps and priority projects to address the gaps. One of the top priority project was Mobility Management. The four main elements in the Mobility Management Program that were prioritized are 1) One Stop Call Center; 2) Travel Training Program; 3) Countywide In-Person ADA Eligibility Determination; and 4) Intercity Taxi Scrip.

Estimated Completion Date: January 2015

Transit Operator: Solano Transportation Authority for all Solano County Operators
(Dixon, FAST, Rio Vista, Soltrans, Vacaville)

Project Title: I-80/I-680/I-780/State Route 12 Transit Corridor Study Update

Project Goal: Develop a service plan that will provide faster transit speeds, better service frequencies, and improved connections intra- and inter-regionally to support the future service projections in Solano County.

Project Description: The I-80/I-680/I-780/State Route 12 Transit Corridor Study updates the Transit Corridor Studies completed in 2004 and 2006 and addresses current and future travel demand in the corridor, existing service and alternatives for serving the corridor and a recommended phased implementation plan. The Transit Corridor Study not only addresses transit services but also updates the facilities and connections needed to support these services into the future. The Transit Corridor Plan will provide guidance and coordination for future investments in Solano County.

Estimated Completion Date: June 2015

Transit Operator: Rio Vista

Project Title: Improve service efficiency and effectiveness

Project Goal: Increase fare revenue and reduce ineffective service to increase service efficiency, as demonstrated through improvements to farebox recovery ratio.

Project Description: In June 2014, the Rio Vista City Council approved a streamlined fare structure that includes several modifications intended to decrease fare media types and increase fare revenue. In addition, various minor service changes have been identified that may reduce the overall operating cost of the service. Consultants and staff will work to implement these changes early in FY14-15.

Estimated Completion Date: September 2014

Transit Operator: Solano County Transit (SolTrans)

Project Title: AVL Implementation

Project Goal: The project's goals include the ability to produce and provide to riders "real-time" predictive bus arrival information, also, the capture and access to a complete spectrum of planning data, ADA compliant visual and audible stop announcements, NTD (National Transit Database) accepted ridership data (via automatic passenger counters installed at bus doorways) and expanded dispatch to bus communications.

Project Description: An AVL/CAD system will allow real-time monitoring for dispatchers, showing the location of current buses, who is driving, how many passengers are on board, and if the route is on-time, late, early, etc. Planners use the data to identify productive and unproductive segments of routes (using APCs) and segments needing time adjustments. Additional functions of AVL/CAD systems include data communications between bus and dispatch, automatic announcements of approaching bus stops (ADA compliance), interaction with headsign controllers, provision of data to real-time bus arrival systems (LED signs and smartphones), etc. All vehicle information will be compatible with 511.org trip planner and Google Transit.

Estimated Completion Date: October 2015

Transit Operator: Solano County Transit (SolTrans)

Project Title: Restructure fixed route service

Project Goal: Increase ridership and productivity by restructuring routes, adding service, and/or relocating bus stops.

Project Description: SolTrans will develop options for improving fixed route system performance and conduct public outreach on the proposal. Service changes will take place in 2015.

Estimated Completion Date: August 2015

Transit Operator: City of Vacaville

Project Title: Research Call-n-Ride System

Project Goal: Increase general public transit ridership.

Project Description: Research, survey and test a call-n-ride type system to be used throughout neighborhoods of Vacaville.

Estimated Completion Date: January 2015

Transit Operator: City of Vacaville

Project Title: Investigate Deviated Fixed Route in Lesiure Town

Project Goal: Research, survey and test a deviated fixed route service to the Leisure Town area to increase ridership in this zone.

Project Description: Investigate deviated fixed route service in Leisure Town area. Leisure Town is comprised of 1,200 senior residents living in a somewhat active senior community. Traditional fixed route has not proven to attract these seniors due to the walking distance involved. If we could deviate and arrive at the curb of the senior rider, chances are better to attract more ridership.

Estimated Completion Date: January 2015

Transit Operator: City of Vacaville

Project Title: Monthly Pass Rewards Program.

Project Goal: Increase fixed route ridership.

Project Description: Partner with the Chamber of Commerce and Downtown Vacaville Business Improvement District (DVBID); offer discounts at business by showing a current City Coach Monthly Pass. The City Coach monthly pass will then offer more than just transportation but the further benefit of significant discounts at businesses within the community. Linking the two (transportation and bus-mess) we can increase ridership while also improving the business environment- this will lead to an increase in a desire to shop and use of City Coach transportation to get them to these businesses (it's a self-feeding loop which will truly improve ridership).

Estimated Completion Date: August 2014

Sonoma County

Transit Operator: City of Petaluma

Project Title: AVL Implementation

Project Goal: The project's goals include the ability to produce and provide to riders "real-time" predictive bus arrival information, also, the capture and access to a complete spectrum of planning data, ADA compliant visual and audible stop announcements, NTD (National Transit Database) accepted ridership data (via automatic passenger counters installed at bus doorways) and expanded dispatch to bus communications.

Project Description: An AVL/CAD system will allow real-time monitoring for dispatchers, showing the location of current buses, who is driving, how many passengers are on board, and if the route is on-time, late, early, etc. Planners use the data to identify productive and unproductive segments of routes (using APCs) and segments needing time adjustments. Additional functions of AVL/CAD systems include data communications between bus and dispatch, automatic announcements of approaching bus stops (ADA compliance), interaction with headsign controllers, provision of data to real-time bus arrival systems (LED signs and smartphones), etc. All vehicle information will be compatible with 511.org trip planner and Google Transit.

Estimated Completion Date: October 2015

Transit Operator: Santa Rosa

Project Title: Comprehensive Operational Analysis (COA) and Service Plan

Project Goal: Conduct comprehensive review and analysis of the fixed-route transit system and its efficiency and effectiveness in meeting local and regional travel needs, and identify short, medium, and long-term plans for transit system design and service delivery.

Project Description: The COA and Service Plan will evaluate how well CityBus is positioned to serve the transit markets of today and of the future, and identify both revenue-neutral and growth strategies for increasing the effectiveness and efficiency of the transit system. The project will identify short-term, revenue-neutral actions to improve current operations and effectiveness of the CityBus system, as well as a longer-range roadmap for system development and priorities for future improvements. The COA will identify options for service integration with SMART stations.

Estimated Completion Date: October 2015

Transit Operator: Santa Rosa

Project Title: Implementation of Paratransit Efficiency Review Tier One Recommendations

Project Goal: Implement Council-approved recommendations for increasing efficiency of paratransit service delivery to improve the level of paratransit service utilizing existing resources.

Project Description: This project involves implementation and monitoring of Paratransit Efficiency Review Tier One Recommendations focused on reducing demand during peak service hours, including:

- 1) Reducing level of subscription trips through implementation of a moratorium on new requests,
- 2) Negotiating, within ADA guidelines, requested trip times,
- 3) Reducing level of demand for paratransit service to Earle Baum Center for the Blind, and
- 4) Limiting level of paratransit service, within ADA guidelines, to the Oakmont Community.

Estimated Completion Date: July 2015

Transit Operator: Sonoma County

Project Title: Transit Asset Management Plan Implementation

Project Goal: Implement a Transit Asset Management Plan

Project Description: Sonoma County Transit will coordinate with MTC and its regional efforts to implement a Transit Asset Management Plan for individual transit operators.

Estimated Completion Date: April 2016



**Metropolitan Transportation Commission
Programming & Allocations Committee
November 2014**

**FY2014 TDA Triennial Operator Performance Audits and
Productivity Improvement Program**

Overview

TDA Audits

- Triennial compliance audits are focused on multi-year trends and performance measures
- Current audit round: AC Transit, BART, CCCTA, Petaluma, Santa Rosa, Sonoma County Transit

Transit Sustainability Project (MTC Res. 4060) – Large Operator Performance

- Reduction from baseline of at least one cost metric by 5% by FY2016-17
- Starting in FY2018-19, MTC will link operating and capital funds administered by MTC to progress towards achieving the performance targets

Performance Metrics	
TDA Audit	TSP Large Operator Metrics
Cost Per Vehicle Service Hour	Cost Per Vehicle Service Hour
Cost Per Passenger	Cost Per Passenger
Passengers Per Vehicle Service Hour	Cost Per Passenger Mile
Passengers Per Vehicle Service Mile	
Vehicle Service Hours Per Employee	

Productivity Improvement Program (PIP)

- PIP process incorporates TSP performance metrics and recommendations

MTC FY2014 TDA Triennial Performance Audits

Audit Approach

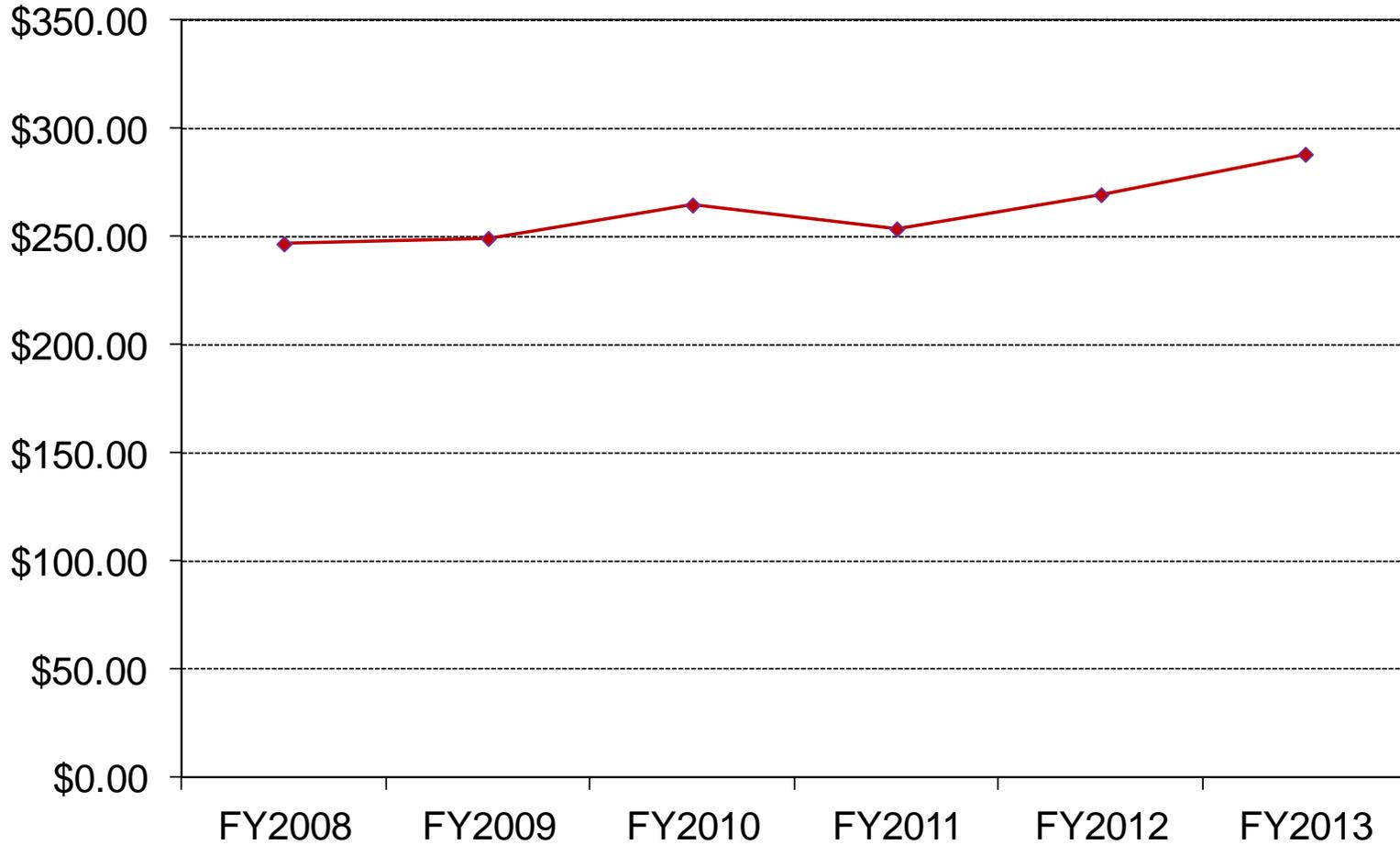
Audit Period

- FYs 2010-11, 2011-12 and 2012-13

Audit Activities

- Review of data collection, management and reporting methods.
- Five TDA performance indicators (six year trend analysis).
- Compliance with statutory and regulatory requirements.
- Review of actions taken to implement prior audit recommendations.
- Conclusions, commentary and recommendations.

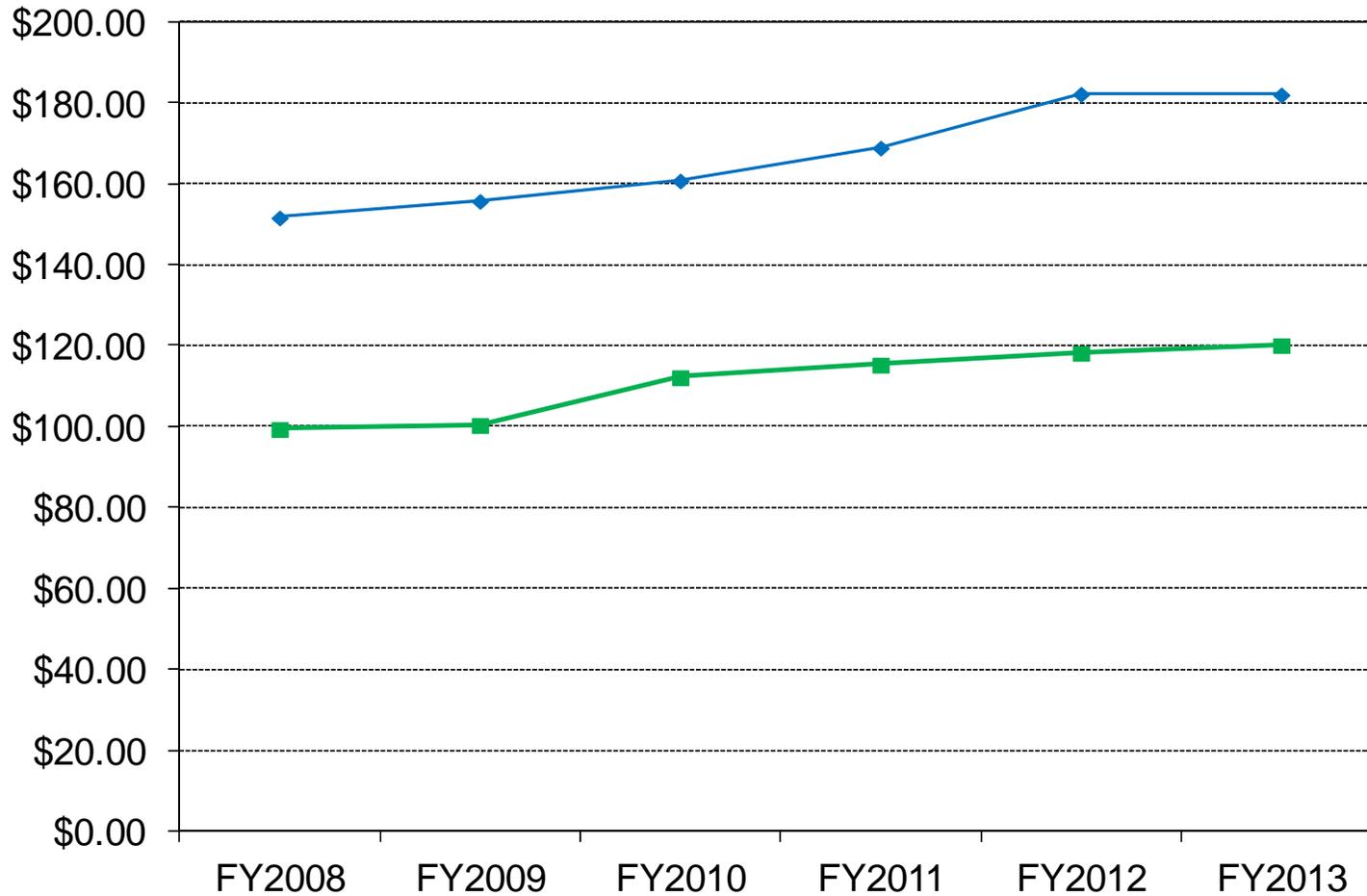
Rail Transit – BART Cost per Car Service Hour



FY2008-FY2013 Average Annual Change (CPI = 1.9%)

◆ BART 3.2%

Fixed-Route Bus – Larger Operators Cost per Vehicle Service Hour



FY2008-FY2013 Average Annual Change (CPI = 1.9%)	
—◆— AC Transit 3.7%	—■— CCCTA 3.9%

Larger Operators

Cost Per Hour Trends – Last 3 Years

(Fixed Route)

BART

- **Costs:** Total operating cost increase of 16.6% over the audit period.
 - Fringe Benefits increased an average of 1.4 percent per year
 - Services increased an average of 11 percent per year
 - Materials/Supplies increased an average of 13 percent per year
 - Casualty/Liability increased an average of 17 percent per year
- **Service:** Total service hour increase of 2.6% over same time period
- **Passengers:** Total increase of 14%

Larger Operators

Cost Per Hour Trends – Last 3 Years *continued*

(Fixed Route)

AC Transit

- **Costs:** Total operating cost increase of 2.7% over the audit period
- **Service:** Total *decrease* of 4.7% in service hours over the same period
- **Passengers:** Total *decrease* of 4%

Larger Operators

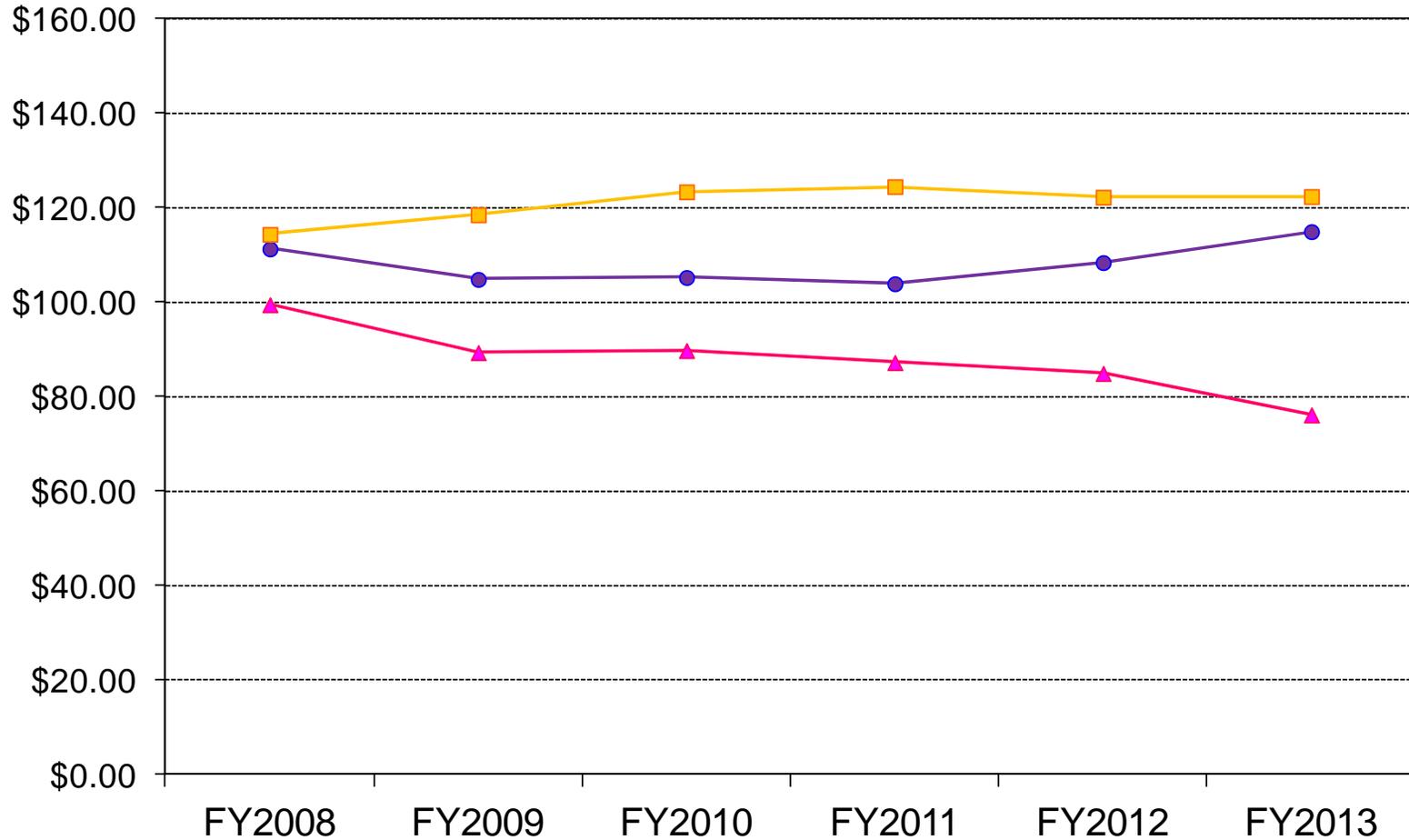
Cost Per Hour Trends – Last 3 Years *continued*

(Fixed Route)

CCCTA

- **Costs:** Total operating cost increase of <1% over the audit period
- **Service:** Total increase of 2.3% in service hours over the same period
- **Passengers:** No significant change

Fixed-Route Bus – Smaller Operators Cost per Vehicle Service Hour



<u>FY2008-FY2013 Average Annual Change</u> (CPI = 1.9%)		
Petaluma -5.2%	Santa Rosa 0.6%	SCT 1.4%

Smaller Operators

Cost Per Hour Trends – Last 3 years

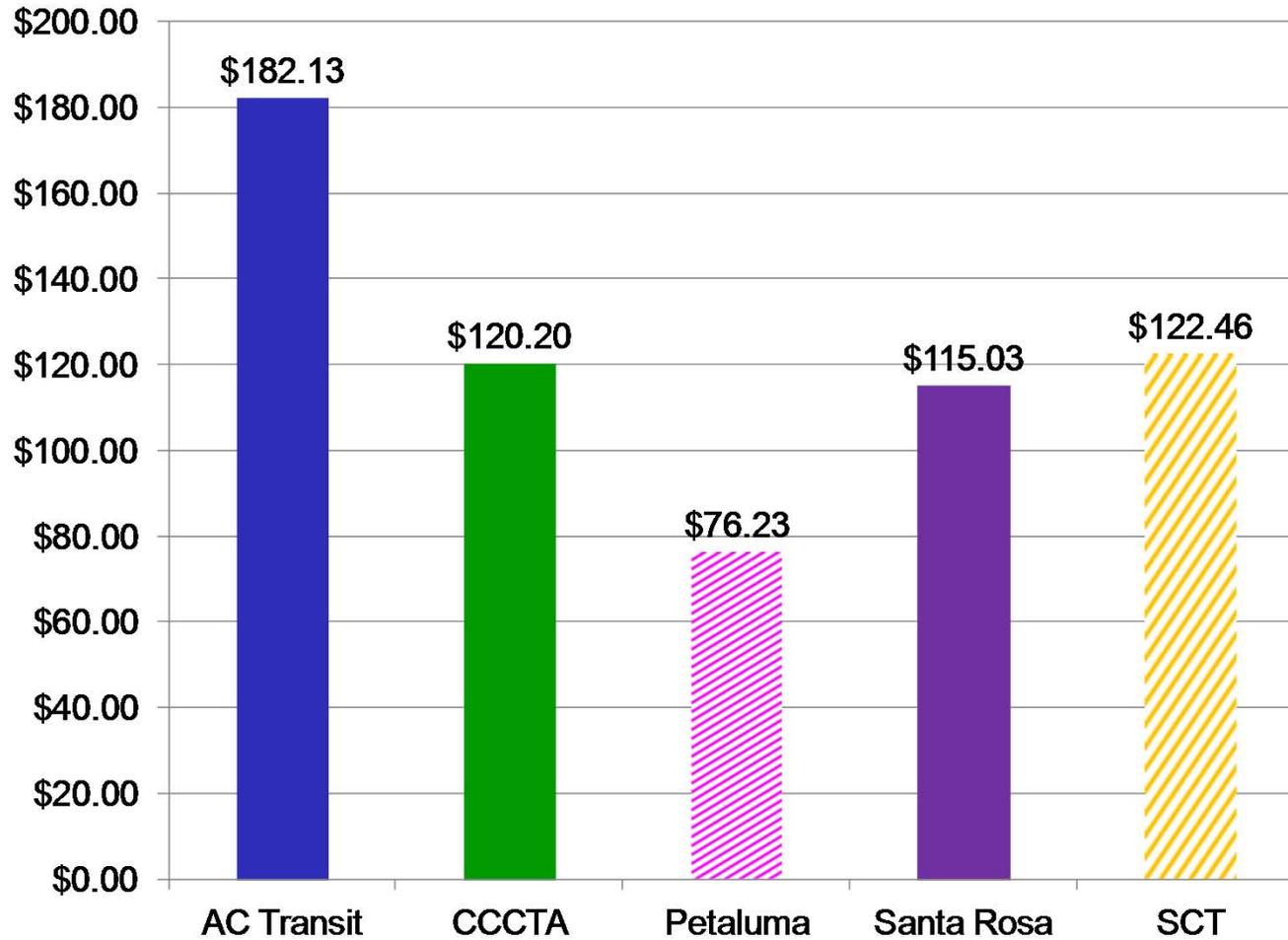
Similar Trends Among Most Operators

- Employee salary and benefit trends reflecting labor agreements or city-wide policies.
- Fuel/Lubricants costs increasing noticeably (5% to 13% per year).
- Purchased Transportation costs comprise the largest share of component costs, but average annual increases are moderate (3% or less).

Trends Specific to Individual Operators

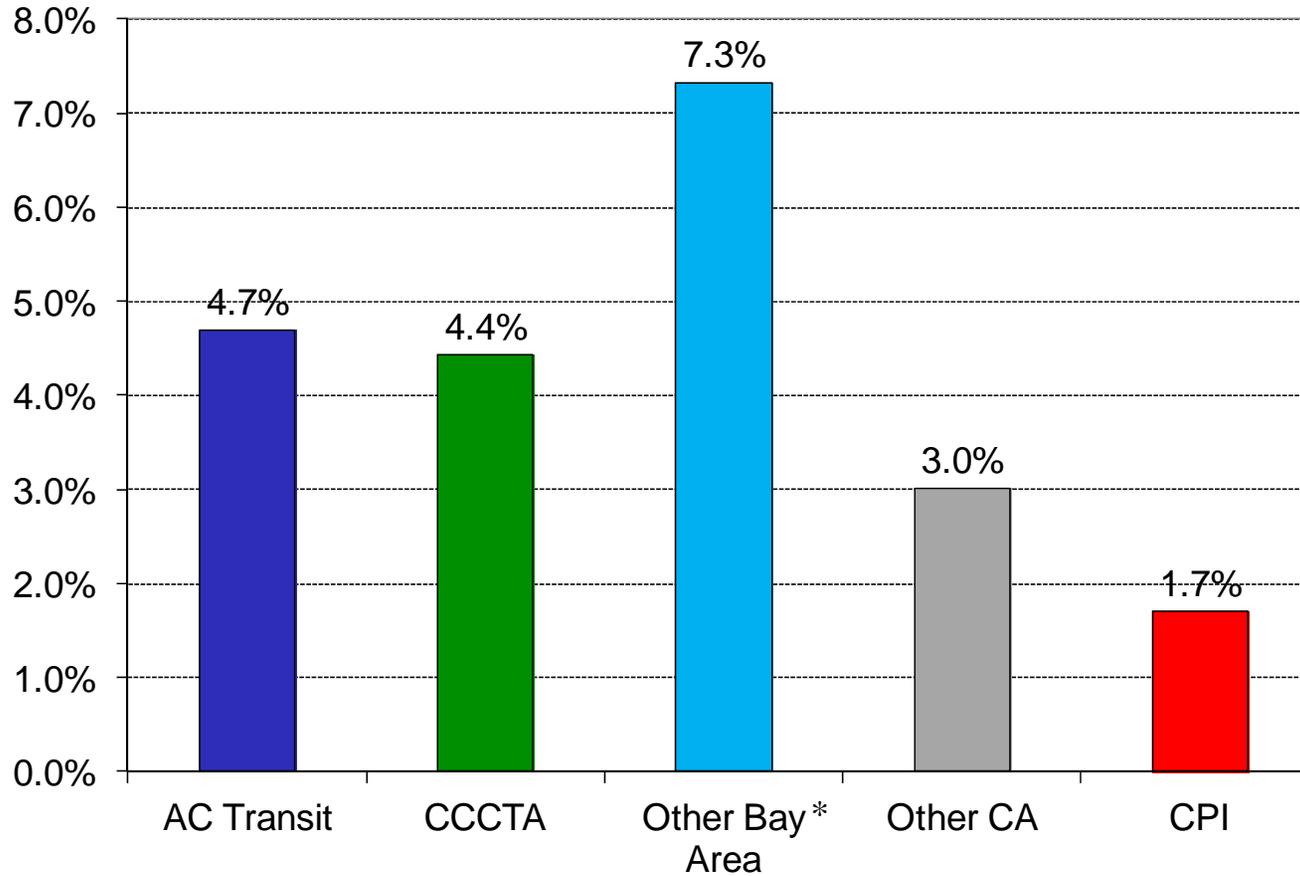
- Petaluma: Service restructuring in FY2010 resulted in a 13 percent improvement in cost efficiency during the audit period.
- Santa Rosa: Labor, Services and Fuel cost increases combined with service hour reductions resulted in a 10 percent increase in cost per hour over the audit period.
- SCT: Costs in most categories were reduced or held steady resulting in small improvement in cost per hour over the audit period.

Comparison of Cost per Vehicle Service Hour – Fixed-Route Bus (FY2013)



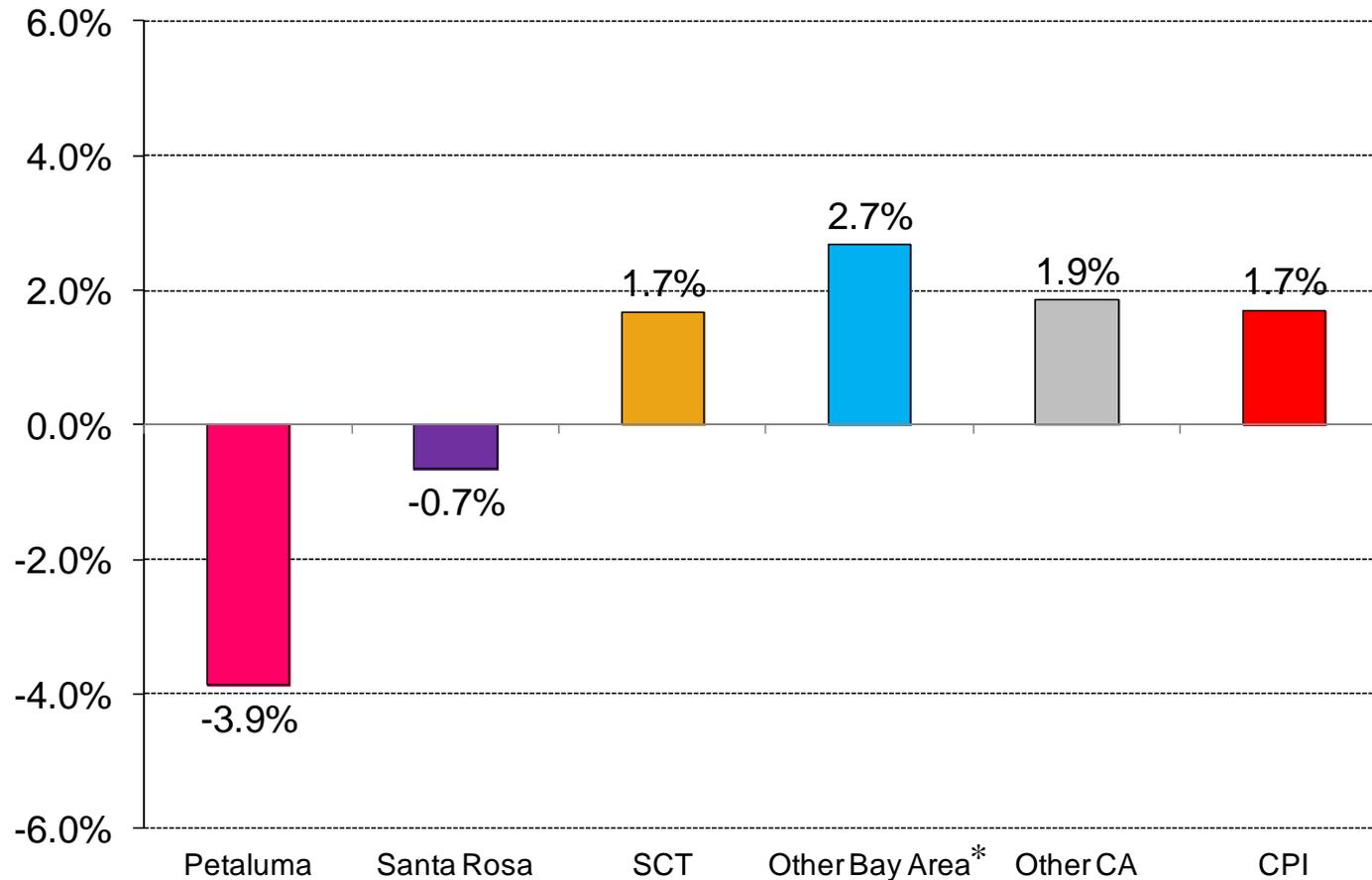
■ - Directly Operated ▨ - Contracted

Comparison of Average Annual Change in Cost per Vehicle Service Hour for Larger Bus Operators (FY2008-FY2012)



* Other Bay Area: Golden Gate, SamTrans, SFMTA, and VTA.

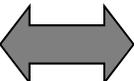
Comparison of Average Annual Change in Cost per Vehicle Service Hour for Smaller Bus Operators (FY2008-FY2012)



* Other Bay Area: Vacaville, Vallejo, NCTPA, Tri Delta, and WestCAT.

Passengers per Vehicle Service Hour Trends

Fixed-Route Service

Agency	Productivity	Ridership	Notes
BART			Slight increase in service, ridership increased
AC Transit			Service and ridership both decreased
CCCTA			Service increased slightly and ridership was unchanged
Petaluma			Slight increase in service, ridership increased
Santa Rosa			Slight increase in service, ridership unchanged
SCT			Service and ridership both decreased

Transit Sustainability Project (TSP) and Transit Performance

MTC annually adopts Productivity Improvement Program (PIP) projects in accordance with TDA law. PIP projects derived from:

- Strategic Plans developed by the largest seven operators to achieve performance targets set forth in MTC Resolution 4060
- Service and institutional recommendations set forth in MTC Resolution 4060
- TDA performance audit findings and other agency initiatives



MTC Resolution 4060: Performance Metrics and Targets

- Target: Reduce operating cost per service hour, cost per passenger, or cost per passenger mile by 5% by FY2016-17 and no growth beyond CPI thereafter
- Targets set compared to the highest cost per metric experienced by each agency between 2008 and 2011
- Starting in FY2018-19, MTC will link existing and new operating and capital funds administered by MTC to progress towards achieving the performance targets



MTC Resolution 4060: Performance Metrics and Targets *Cost Per Hour*

Transit Operator	Baseline Highest Year		Most Recent Assessment Year	Percent Change from Highest	FY 2016-17 Target (a)
	Year	Performance	FY2012-13	FY 2012-13	
AC Transit	FY2010-11	\$164.64	\$168.16	2.1%	\$156.41
BART	FY2009-10	\$269.64	\$275.83	2.3%	\$256.16
Caltrain*	FY2010-11	\$335.69	\$446.39	33.0%	\$318.90
GGBHTD	FY2010-11	\$249.09	\$242.57	-2.6%	\$236.64
SFMTA	FY2009-10	\$198.84	\$193.16	-2.9%	\$188.90
SamTrans**	FY2009-10	\$152.12	\$173.09	13.8%	\$144.51
VTA	FY2010-11	\$180.63	\$184.80	2.3%	\$171.60

Note: shading indicates five percent or greater real reduction in performance
 (a) Equals five percent reduction from baseline highest year in FY2012-13 dollars.

* NTD reporting direction to Caltrain varied over reporting period related to shuttle system hours and costs, resulting in a significant increase for FY2012-13 cost per hour. Caltrain rail service increase for FY2012-13 compared to baseline year was 3.9%.

** SamTrans has submitted a revision to NTD adjusting the vehicle service hours reported that may change the FY2016-17 target. Staff may revise once final FY2012-13 NTD data is made available.



MTC Resolution 4060: Performance Metrics and Targets *Cost Per Passenger*

Transit Operator	Baseline Highest Year		Most Recent Assessment Year	Percent Change from Highest	FY 2016-17 Target (a)
	Year	Performance	FY2012-13	FY 2012-13	
AC Transit	FY2008-09	\$5.72	\$5.74	0.5%	\$5.43
BART	FY2008-09	\$4.72	\$4.23	-10.5%	\$4.49
Caltrain	FY2009-10	\$8.09	\$6.17	-23.8%	\$7.69
GGBHTD	FY2010-11	\$11.69	\$11.30	-3.3%	\$11.10
SFMTA	FY2009-10	\$3.18	\$2.98	-6.1%	\$3.02
SamTrans	FY2010-11	\$8.35	\$8.84	5.8%	\$7.93
VTA	FY2009-10	\$7.28	\$7.17	-1.5%	\$6.91

Note: shading indicates five percent or greater real reduction in performance
(a) Equals five percent reduction from baseline highest year in FY2012-13 dollars.

MTC Resolution 4060: Performance Metrics and Targets *Cost Per Passenger Mile*

Transit Operator	Baseline Highest Year		Most Recent Assessment Year	Percent Change from Highest	FY 2016-17 Target (a)
	Year	Performance	FY2012-13	FY 2012-13	
AC Transit	FY2009-10	\$1.96	\$1.53	-21.9%	\$1.86
BART	FY2008-09	\$0.38	\$0.32	-13.6%	\$0.36
Caltrain	FY2007-08	\$0.35	\$0.30	-15.4%	\$0.33
GGBHTD	FY2008-09	\$1.20	\$1.03	-14.1%	\$1.14
SFMTA	FY2009-10	\$1.52	\$1.42	-6.6%	\$1.44
SamTrans	FY2010-11	\$1.74	\$1.79	2.8%	\$1.66
VTA	FY2009-10	\$1.54	\$1.35	-12.1%	\$1.46

*Note: shading indicates five percent or greater real reduction in performance
(a) Equals five percent reduction from baseline highest year in FY2012-13 dollars.*



Performance Measure Progress to Date

- Six operators on target to achieve 5% reduction – primarily due to increase in passengers
- Cost control, a primary focus of TSP, remains a concern – cost per hour continues to trend up
- Staff working with operators to assess value of Cost Per Passenger Mile metric
- NTD data has some issues, due to changes in FTA and operator procedures from year to year.

Small Operators: PIP Focus on TSP Recommendations and Specific Transit Agency Initiatives

- Corridor/sub-regional Updates to Express Bus Plans
- Clipper Implementation
- Transit Asset Management Plan Implementation
- Mobility Management
- Operational Improvements