

Triennial Performance Audit

of the

City of Petaluma Petaluma Transit

Fiscal Years 2013/14, 2014/15 and 2015/16

FINAL AUDIT REPORT

prepared for the



**METROPOLITAN
TRANSPORTATION
COMMISSION**

by



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Management Consulting

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NOTE:

All exhibits in this report are presented at the end of the associated discussion in each section.

EXECUTIVE SUMMARY

This executive summary highlights the findings from the performance audit of the City of Petaluma—Petaluma Transit. In California, a performance audit must be conducted every three years of any transit operator receiving Transportation Development Act (TDA) Article 4 funds, to determine whether the operator is in compliance with certain statutory and regulatory requirements, and to assess the efficiency and effectiveness of the operator’s services. The two service modes operated by Petaluma, bus and paratransit, are the focus of this performance audit. The audit period is Fiscal Years 2014 through 2016 (from July 1, 2013 through June 30, 2016).

Performance Audit and Report Organization

The performance audit is being conducted for MTC in accordance with its established procedures for performance audits. The audit report consists of these sections:

- An assessment of data collection and reporting procedures;
- A review of performance trends in TDA-mandated indicators and component costs;
- A review of compliance with selected PUC requirements;
- An evaluation of Petaluma’s actions to implement the recommendations from the last performance audit;
- An evaluation of functional performance indicator trends; and
- Findings, conclusions, and recommendations to further improve Petaluma’s performance based on the results of the previous sections.

Comments received from Petaluma and MTC staff regarding the draft report were incorporated into this final report. Highlights from the key activities are presented in this executive summary.

Results and Conclusions

Review of TDA Data Collection and Reporting Methods - The purpose of this review is to determine if Petaluma is in compliance with the TDA requirements for data collection and reporting. The review is limited to the five data items needed to calculate the TDA-mandated performance indicators. This review has determined that Petaluma is in compliance with the data collection and reporting requirements for all five TDA statistics. In addition, the statistics collected over the six-year review period indicate general consistency in terms of the direction and magnitude of the year-to-year changes across the statistics. While the statistics collected over the period appear to be consistent with the TDA definitions, some reporting consistency exceptions were noted.

The statistics for paratransit vehicle service hours and vehicle service miles were trending in opposite directions in FY2014 and FY2015. Vehicle service hours declined by 8.8 and 2.2 percent in those two years, while the vehicle service miles increased 22.3 and 5.5 percent. Normally, these statistics move in tandem.

Discussions with Petaluma staff indicated that data problems with their Trapeze Novus paratransit scheduling software caused these anomalies, which were noticed during NTD reporting. Working with NTD analysts to identify the problems, and using sample service weeks to compare on-board data with software reported data, Petaluma was able to identify the data reporting problems. Petaluma upgraded their paratransit software package during FY2016 to improve data reporting. More recent tests of reported data appear to confirm the upgrade has improved data accuracy.

Performance Indicators and Trends – Petaluma’s performance trends for the five TDA-mandated indicators were analyzed by mode. A six-year analysis period was used for all the indicators. In addition, component operating costs were analyzed.

- Bus Service – The following is a brief summary of the TDA performance trend highlights over the six-year period of FY2011 through FY2016:
 - Cost efficiency improved, with a slight average annual decrease in the operating cost per hour of 0.4 percent, or 2.8 percent in inflation adjusted dollars.
 - Cost effectiveness similarly improved, with cost per passenger decreasing on average by 4.2 percent per year, or average annual decrease of 6.6 percent in constant FY2011 dollars.
 - Passenger productivity demonstrated positive trends, with passengers per vehicle service hour increasing by 4.0 percent per year overall and passengers per vehicle service mile increasing by 4.7 percent.

The following is a brief summary of the component operating costs trend highlights for the bus service between FY2011 and FY2016:

- Labor costs went up by 8.6 percent per year, and fringe benefit costs increased an average of 14 percent per year. Together, these two categories’ share of total operating costs remained in the 13 to 15 percent range.
- Services costs also increased about 14 percent annually and averaged between eight and twelve percent of total operating costs over the last three years. Services increased more than 30 percent in FY2014 and 46 percent in FY2015, attributed to increased costs for contracted services such as bus shelter cleaning and local school information outreach.
- Fuel and lubricants costs remained almost unchanged, decreasing an average of 0.5 percent annually. The fuel/lubricants share of total

operating costs decreased over the six-year period from about 15 percent to nine percent by FY2016.

- Purchased transportation is the largest cost category, comprising about 50 percent of total operating costs. Purchased transportation costs increased an average of almost nine percent annually over the six-year period.
- Casualty/liability costs increased an average 15.6 percent annually, and remained steady at about four percent of total operating costs. Other miscellaneous costs decreased an average of almost four percent per year and accounted for about eight to twelve percent of total costs.
- Paratransit – The following is a brief summary of the TDA performance trend highlights over the six-year period of FY2011 through FY2016:
 - Cost efficiency worsened, with an average annual increase in the operating cost per hour of 6.1 percent. This translated to a 3.5 percent increase in inflation adjusted dollars.
 - Cost effectiveness exhibited more moderate performance with cost per passenger increasing an average of 2.1 percent per year in actual dollars. When expressed in constant (inflation-adjusted) dollars, cost effectiveness shows improvement with an average annual decrease of 0.4 percent.
 - Passenger productivity demonstrated positive trends, with passengers per vehicle service hour increasing by 3.9 percent overall and passengers per vehicle service mile increasing by 2.4 percent.

The following is a brief summary of the component operating costs trend highlights for paratransit between FY2011 and FY2016:

- Total annual costs increased by about four percent on average, with the largest average annual increase of almost 68 percent in the services category. The services component share of total operating costs also increased from about one percent in FY2011 to about nine percent in FY2016. The increase in services costs in the current audit

period (FY2014 -2016) is attributed to higher costs for contracted services in 2016.

- In-house labor and fringe benefits costs both increased overall, by about 11 and 17 percent annually, with the majority of the increase occurring in the first three years of the audit period. Labor costs comprised about 20 percent of total costs in FY2013, dropping to about 15 percent by the end of the period. Fringe benefits consistently made up about five percent of the total operating costs.
- Purchased transportation costs comprised the largest share of total costs at between 55 and 60 percent annually. Purchased transportation decreased on average by 1.5 percent annually over the audit period.
- Fuel costs decreased an average of four percent annually, while casualty and other costs showed annual increases of about six and 27 percent, respectively. These cost categories each comprise less than ten percent of total operating costs each year.

PUC Compliance – Petaluma is in compliance with the sections of the state PUC that were reviewed as part of this performance audit. The sections reviewed included requirements concerning CHP safety inspections, labor contracts, reduced fares, Welfare-to-Work, revenue sharing, and evaluation of passenger needs. Petaluma did not receive a CHP inspection in 2015.

Status of Prior Audit Recommendations – There were no recommendations made in Petaluma’s prior performance audit.

Functional Performance Indicator Trends - To further assess Petaluma’s performance over the past three years, a detailed set of systemwide and modal functional area performance indicators was defined and reviewed.

- Systemwide – The following is a brief summary of the systemwide functional trend highlights between FY2014 and FY2016:
 - Administrative costs were steady at about 31 percent of total operating costs, while also increasing modestly to \$27 per vehicle service hour.
 - Spending for marketing costs decreased over 20 percent relative to both total administrative costs and passenger trips.
 - The systemwide farebox recovery ratio decreased slightly from about 12 percent to 11 percent.

- Bus Service – The following is a brief summary of the bus service functional trend highlights between FY2014 and FY2016:
 - Service Planning results showed about a 22 percent increase in cost per passenger mile, vehicle miles and hours in service rates of about 97 and 95 percent respectively, and a decrease of about 11 percent for passengers per mile and hour.
 - Both vehicle operations cost as a percentage of total costs and vehicle operations costs per hour decreased over the audit period. Farebox recovery decreased from 16 to 13 percent, while the TDA recovery ratio decreased from 35 percent to about 32 percent.
 - The only schedule adherence information provided was on-time performance for FY2016. However, this was provided specifically in response to this audit. It was observed that schedule adherence and passenger complaint data were not reported by the contractor throughout the entire audit period, as required.
 - Maintenance costs as a percentage of total operating cost increased by nearly 53 percent, and vehicle maintenance cost per mile increased over 68 percent. The vehicle spare ratio decreased over 50 percent. Failure rates for both major and all failures worsened between FY2014 and FY2016, but total failures only increased from four to ten failures over the audit period.

- In the safety area, the rate of preventable accidents was less than one per every 100,000 vehicle miles in FY2016, the only year in which data was provided. It was observed that preventable accident data was not reported by the contractor in the monthly reports throughout the entire audit period as required by the agreement with the City.
- Paratransit – The following is a brief summary of the paratransit functional trend highlights between FY2014 and FY2016:
 - Service Planning results showed a six percent increase in operating cost per passenger mile, and consistently 93 percent or more vehicle miles and hours in service. Passengers per mile remained constant over the audit period, while passengers per hour increased almost eight percent.
 - Vehicle operations cost per service hour decreased by 15 percent over the audit period. As a percentage of total operating costs, vehicle operations exhibited 15 percent decrease between FY2014 and FY2016. Farebox recovery and TDA recovery ratios performance was the same, increasing from approximately six percent in FY2014 to almost eight percent in FY2016.
 - Gaps in the contractor’s reporting of required service quality, schedule adherence and complaint data were noted throughout the audit period.
 - Maintenance costs more than doubled from six percent to 13.5 percent of total operating costs over the audit period. In addition, vehicle maintenance cost per mile increased by over 96 percent, from \$0.58 per mile to \$1.13 per mile, as a result of rising maintenance equipment and services costs. Mean distance between mechanical failures improved by three percent overall.
 - The only year for which data was available for preventable accidents was FY2016, which was provided in response to the auditor’s request. No accident data was reported by the contractor in the monthly reports throughout the entire audit period, as required under the terms of the agreement with the City.

Recommendations

1. IMPROVE DATA COLLECTION AND REPORTING ACTIVITIES FOR QUALITY OF SERVICE STATISTICS FOR BOTH THE BUS AND PARATRANSIT SERVICES.

[Reference Section: VI. Functional Performance Indicator Trends]

There were numerous data gaps in quality of service statistics identified in the Functional Performance Indicator section of the audit for both Petaluma's bus and paratransit services. As such, functional performance trend analysis could not be made in several performance measures (i.e., on-time performance, missed trips, ADA capacity indicators, and accident data). While Petaluma was able to provide some information for FY2016, this information was provided specifically for the performance audit and was not included in the contractor's monthly reports, as required. The required data items that were not being reported for fixed-route include:

- Late and Missed Trips;
- Complaints; and
- Total and Preventable Accidents.

The required data items for paratransit service that were not reported by the contractor include:

- ADA Trip Denials (data reported in FY2016 only);
- Trip Cancellations;
- Late Trip Cancellations;
- No Shows; and
- Total and Preventable Accidents.

Collection and reporting of accurate, complete operating data is vital for a comprehensive analysis of performance for both bus and paratransit services. For the latter, these data are additionally important in demonstrating that the transit agency complies with the ADA regulations by ensuring no capacity constraints on complementary paratransit service. Petaluma should begin collecting quality of service data for both bus and paratransit services, and develop a comprehensive set of performance indicators to include with their existing performance monitoring system.

2. EVALUATE THE TRANSIT DEPARTMENT ORGANIZATION AND STAFFING TO DETERMINE HOW CONTRACT ADMINISTRATION RESPONSIBILITIES CAN BE CONDUCTED MORE EFFECTIVELY.

[Reference Section: VI. Functional Performance Indicator Trends]

While assessing the data collection and reporting activities for the quality of service statistics, it was noted that several data items were not being reported by the contractor throughout the audit period. These data are required to be included in the contractor's weekly and/or monthly reporting to the City, per the terms of the operating agreement. As such, it is apparent that the City of Petaluma has not been performing its contract administration responsibilities adequately to ensure that the reporting was performed as required. In discussions with Petaluma transit staff, the concern was raised whether there was sufficient staff to perform these duties (i.e., with one full-time, and two part-time employees). In order to address this concern, the City should evaluate the transit department organization and staffing to determine how contract administration responsibilities can be conducted more effectively to ensure that all contract terms and provisions, including required weekly and monthly reporting, are being met.

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I. INTRODUCTION

Public Utilities Code (PUC) Section 99246 requires that a performance audit be conducted every three years of each public transit operator in California. The audit requirement pertains to recipients of Transportation Development Act (TDA) funds, and is intended to assure that the funds are being used efficiently. The substance and process of the performance audit is defined by the Regional Transportation Planning Agency (RTPA).

In the San Francisco Bay Area, the Metropolitan Transportation Commission (MTC) has been designated the RTPA and has this responsibility. By statute, the audit must be conducted in accordance with the U.S. Comptroller General's "Standards for Audit of Governmental Organizations, Programs, Activities, and Functions" (the "yellow book"). The performance audit is a systematic review to determine the extent to which a transit operator has complied with pertinent laws and regulations, and conducted operations in an efficient and economical manner. Relative to system compliance testing, all findings are reported regardless of materiality.

This report has been prepared as part of the performance audit of the City of Petaluma—Petaluma Transit. The two modes operated by Petaluma, bus and paratransit, are the focus of this performance audit. The audit period is Fiscal Years 2014 through 2016 (from July 1, 2013 through June 30, 2016).

An overview of Petaluma is provided in Exhibit 1. This is followed by an organization chart in Exhibit 2, which reflects the basic organizational structure during the audit period and beyond.

Performance Audit and Report Organization

This performance audit of Petaluma is being conducted for MTC in accordance with its established procedures for performance audits. The audit consists of two discrete steps:

1. Compliance Audit - Activities in this phase include:
 - An overview of data collection and reporting procedures for the five TDA performance indicators;
 - Analysis of the TDA indicators; and
 - A review of compliance with selected state Public Utilities Code (PUC) requirements.

2. Functional Review - Activities in this phase include:
 - A review of actions to implement the recommendations from the prior performance audit;
 - Calculation and evaluation of performance indicator trends; and
 - Findings, conclusions, and the formulation of recommendations.

This report presents the findings from both phases. Comments received from Petaluma and MTC staff regarding the draft report were incorporated into this final report.

Exhibit 1: System Overview

Location	Headquarters: 555 North McDowell Blvd., Petaluma, CA 94954
Establishment	The City of Petaluma began providing fixed-route transit service in 1976. Paratransit service was added in 1982.
Board	The City is a City Council/Manager form of government. Petaluma Transit is a division within the Public Works & Utilities Department and is managed by the Transportation Division Manager. The Transportation Division Manager reports to the Public Works & Utilities Director, who in turn reports to the City Manager, who reports to the seven-member City Council.
Facilities	The City's transit facility on North McDowell Blvd. is the central base of operations for services. Transit vehicle maintenance and washing are performed on site. The facility also houses the manager for both fixed-route and paratransit operations.
Service Data	<p>The City contracts with MV Transportation, Inc. to operate and maintain both its fixed-route and paratransit services, operating as Petaluma Transit. The City operates six fixed-route alignments, operating on 30, 60 or 75-minute headways. These routes provide connections with Sonoma County Transit and Golden Gate transit buses at the downtown Petaluma Transit Mall. Three routes operate seven days a week, two operate on weekdays and Saturdays, and one route operates on weekdays only. The City also operates one school tripper route operating on weekdays only. Hours of operation are Monday through Friday, 6:15 A.M. to 10:10 P.M.; Saturday, 7:15 A.M. to 10:10 P.M, and Sunday 8:20 A.M. to 5:45 P.M. The fixed-route adult base fare is \$1.50. The discounted fare for senior and disabled riders is \$0.75 and \$1.00 for students. Transfers are free with a paid fare. Discounted monthly passes are available for adults (\$30), students (\$20), and senior & disabled passengers (\$15). Student quarterly passes are also available (\$20 - \$40), as is a non-discounted 10-ride Transit Pass.</p> <p>Paratransit service is a call-ahead door-to-door shared ride service throughout the Petaluma Transit service area. Days and hours of operation are the same as fixed-route service, with a fare of \$3.00 per one way trip.</p> <p>Petaluma's current operating fleet consists of a total of fourteen buses: four 29-foot, six 35-foot and four 40-foot low-floor transit buses used for fixed-</p>

route service and seven gasoline powered 22 to 24-foot cutaway buses used for paratransit services.

Recent Changes

In 2016, Petaluma took delivery of two new 35-foot and one 40-foot Gillig low-floor Diesel-Electric Hybrid replacement buses for its fixed-route fleet. Petaluma also acquired three new Ford cutaway replacement vans for its paratransit fleet in 2013 and 2015, and is expecting delivery of two new paratransit replacement vans in 2017. Petaluma expanded its transit services to include Sunday service in August 2012. A new Short Range Transportation Plan was published in October 2016. In August 2014, Petaluma instituted a fare increase for both fixed-route and paratransit service.

Planned Changes

Petaluma has a fare increase schedule in place that would raise the cash fare for adults, students and seniors by \$0.25 in FY2018. Paratransit fares would increase to \$3.50 one-way. Petaluma’s monthly passes also would increase. Longer term planned operating changes include a mid-day Senior Route service, shuttle service to link with the upcoming Sonoma Marin Area Rail Transit service, improving frequency of fixed-route services, and planning for potential Bus Rapid Transit on Routes 2 and 11.

Petaluma’s planned capital projects include five new replacement fixed-route buses in FY2022 and FY2026. Two paratransit vehicles are scheduled for replacement in FY2018, two more in FY2020, one in FY2017 and two more in FY2023

Staff

The City’s and MV Transportation’s full-time equivalent employees are assigned to the following areas:

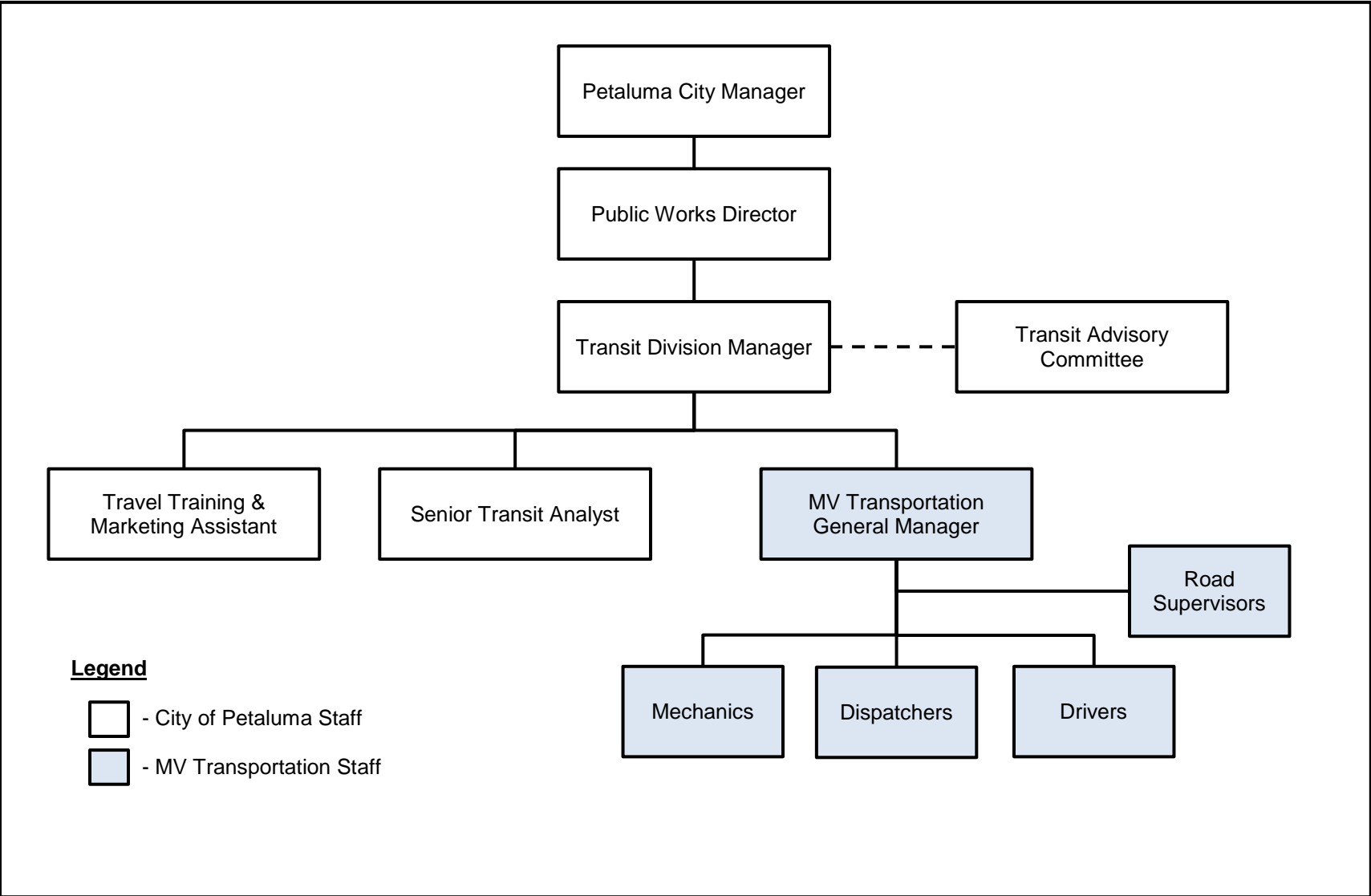
City of Petaluma

Transportation Division Manager	1
Senior Transit Analyst (part-time)	1
Travel Training/Marketing Assistant (part-time)	<u>1</u>
TOTAL	3

MV Transportation

General Manager	1
Road Supervisors	2
Maintenance	2
Dispatcher	3
Driver	11
Driver (part-time)	<u>3</u>
TOTAL	22

Exhibit 2: Audit Period Organization Chart



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II. REVIEW OF TDA DATA COLLECTION AND REPORTING METHODS

This section focuses on the five performance indicators required by TDA law. These indicators have been defined by the state PUC to evaluate the transit operator's efficiency, effectiveness and economy. The purpose of this review is to determine if Petaluma is compliance with the data collection and reporting requirements necessary to calculate the TDA performance indicators. The review is limited to the data items needed to calculate the indicators:

- Operating costs
- Vehicle service hours
- Vehicle service miles
- Unlinked passengers
- Employees (full-time equivalents)

The TDA indicator analysis is based on these operating and financial statistics in the National Transit Database (NTD) reports submitted annually to the Federal Transit Administration (FTA). The information reported by Petaluma covering the audit period has been reviewed.

Compliance with Requirements

To support this review, Petaluma staff confirmed that most of the data collection and reporting procedures remain unchanged from those described in the prior performance audit. Based on the information provided, as shown in Exhibit 3.1, Petaluma is in compliance with the data collection and reporting requirements for all five TDA statistics.

Consistency of the Reported Statistics

The resulting TDA statistics for Petaluma's bus and paratransit services are shown in Exhibits 3.2 and 3.3. Included are statistics covering each fiscal year of the three-year audit period, plus the immediately preceding three fiscal years, resulting in a six-year trend. The statistics indicate general consistency in terms of the direction and magnitude of the year-to-year changes across the statistics. For example, increases or decreases in annual operating costs are relatively proportional to increases or decreases in annual vehicle service hours and miles. While the statistics collected over the period appear to be consistent with the TDA definitions, some reporting consistency exceptions were noted.

The statistics for paratransit vehicle service hours and vehicle service miles were trending in opposite directions in FY2014 and FY2015. Vehicle service hours declined by 8.8 and 2.2 percent in those two years, while the vehicle service miles increased 22.3 and 5.5 percent. Normally, these statistics move in tandem.

Discussions with Petaluma staff indicated that data problems with their Trapeze Novus paratransit scheduling software caused these anomalies, which were noticed during NTD reporting. Working with NTD analysts to identify the problems, and using sample service weeks to compare on-board data with software reported data, Petaluma was able to identify the data reporting problems. Petaluma upgraded their paratransit software package during FY2016 to improve data reporting. More recent tests of reported data appear to confirm the upgrade has improved data accuracy.

Exhibit 3.1: Compliance with TDA Data Collection and Reporting Requirements

TDA Statistic	TDA Definition	Compliance Finding	Verification Information
Operating Cost	<p>“Operating cost” means all costs in the operating expense object classes exclusive of the costs in the depreciation and amortization expense object class of the uniform system of accounts and records adopted by the Controller pursuant to Section 99243. Also excluded are all subsidies for commuter rail services operated on railroad lines under the jurisdiction of the Federal Railroad Administration, all direct costs for providing charter services, all vehicle lease costs, and principal and interest payments on capital projects funded with certificates of participation.</p>	In Compliance	<ul style="list-style-type: none"> • Costs for both modes are collected via the City’s accounting system (Eden). Within this system transit is identified with its own fund; within that fund there are three cost centers: transit administration (used for expenses shared between modes), fixed route and paratransit. General costs, including intergovernmental fees, are split between fixed route and paratransit in the 65100 cost center.
Vehicle Service Hours	<p>“Vehicle service hours” means the total number of hours that each transit vehicle is in revenue service, including layover time.</p>	In Compliance	<ul style="list-style-type: none"> • Fixed Route vehicle service hours are collected manually from driver run sheets on a daily basis by the contractor and summarized in a monthly report for City staff. Vehicle service hours are collected in conformance with NTD definitions. • Paratransit vehicle service hours are reported by the contractor monthly. Service hours are calculated from first pick up to last drop off. Daily detail is available on request. This information is currently prepared using Trapeze paratransit dispatching and scheduling software.

TDA Statistic	TDA Definition	Compliance Finding	Verification Information
Vehicle Service Miles	“Vehicle service miles” means the total number of miles that each transit vehicle is in revenue service.	In Compliance	<ul style="list-style-type: none"> • Fixed Route vehicle service miles are collected manually from driver run sheets on a daily basis by the contractor and summarized in a monthly report for City staff. Vehicle service miles are collected in conformance with NTD definitions. • Paratransit vehicle service miles are reported by the contractor monthly. Service miles are calculated from first pick up to last drop off. Daily detail is available on request. This information is currently prepared using Trapeze paratransit dispatching and scheduling software and verified using the driver reports.
Unlinked Passengers	“Unlinked passengers” means the number of boarding passengers, whether revenue producing or not, carried by the public transportation system.	In Compliance	<ul style="list-style-type: none"> • Fixed Route – passengers are counted manually using passenger counters. The information is transferred at the end of each trip to the daily run sheet. Information from the daily run sheets is compiled into a monthly report. The contractor provides City staff with copies of all of the daily run sheets. • Paratransit – passenger trips are reported using the Trapeze paratransit dispatching and scheduling software.
Employee Full-Time Equivalents	2,000 person-hours of work in one year constitute one employee.	In Compliance	<ul style="list-style-type: none"> • Contractors report total employee work hours at year end. City employees (2.5) are added to contractor employees based on budget split.

Exhibit 3.2: TDA Statistics – Bus Service

TDA Statistic	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Operating Cost (Actual \$)	\$1,178,637	\$1,253,316	\$1,210,679	\$1,358,402	\$1,369,079	\$1,601,738
<i>Annual Change</i>	- -	6.3%	-3.4%	12.2%	0.8%	17.0%
Vehicle Service Hours	13,498	14,741	15,881	17,117	18,620	18,686
<i>Annual Change</i>	- -	9.2%	7.7%	7.8%	8.8%	0.4%
Vehicle Service Miles	186,383	194,275	215,751	227,229	246,124	249,769
<i>Annual Change</i>	- -	4.2%	11.1%	5.3%	8.3%	1.5%
Unlinked Passengers	206,512	283,293	317,671	359,520	373,949	348,009
<i>Annual Change</i>	- -	37.2%	12.1%	13.2%	4.0%	-6.9%
Employee Full-Time Equivalents	(a)	(a)	(a)	(a)	(a)	(a)
<i>Annual Change</i>	- -	- -	- -	- -	- -	- -

(a) Contracted service; FTEs not applicable

Sources: FY2011 through FY2013 - Prior Performance Audit Report

FY2014 through FY2016 - NTD Reports

Exhibit 3.3: TDA Statistics – Paratransit

TDA Statistic	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Operating Cost (Actual \$)	\$664,852	\$630,808	\$867,365	\$867,961	\$881,335	\$811,826
<i>Annual Change</i>	- -	-5.1%	37.5%	0.1%	1.5%	-7.9%
Vehicle Service Hours	9,247	8,183	9,958	9,078	8,878	8,389
<i>Annual Change</i>	- -	-11.5%	21.7%	-8.8%	-2.2%	-5.5%
Vehicle Service Miles	84,652	62,173	66,060	80,797	85,251	82,607
<i>Annual Change</i>	- -	-26.6%	6.3%	22.3%	5.5%	-3.1%
Unlinked Passengers	22,965	21,831	21,789	25,411	26,457	25,282
<i>Annual Change</i>	- -	-4.9%	-0.2%	16.6%	4.1%	-4.4%
Employee Full-Time Equivalentents	(a)	(a)	(a)	(a)	(a)	(a)
<i>Annual Change</i>	- -	- -	- -	- -	- -	- -

(a) Contracted service; FTEs not applicable

Sources: FY2011 through FY2013 - Prior Performance Audit Report

FY2014 through FY2016 - NTD Reports

III. TDA PERFORMANCE INDICATORS AND TRENDS

The performance trends for Petaluma's bus and paratransit service modes are presented in this section. Performance is discussed for each of the five TDA-mandated performance indicators:

- operating cost per vehicle service hour
- passengers per vehicle service hour
- passengers per vehicle service mile
- operating cost per passenger
- vehicle service hours per full-time equivalent employee (FTE)

The performance results in these indicators were developed from the information in the NTD reports filed with the FTA for the three years of the audit period. Petaluma's NTD reports were the source of all operating and financial statistics.

In addition to presenting performance for the three years of the audit period (FY2014 through FY2016), this analysis features two enhancements:

- Six-Year Time Period – While the performance audit focuses on the three fiscal years of the audit period, six-year trend lines have been constructed for Petaluma's service to provide a longer perspective on performance and to clearly present the direction and magnitude of the performance trends. In this analysis, the FY2014 to FY2016 trend lines have been combined with those from the prior audit period (FY2011 through FY2013) to define a six-year period of performance.
- Normalized Cost Indicators for Inflation – Two financial performance indicators (cost per hour and cost per passenger) are presented in both constant and current dollars to illustrate the impact of inflation in the Bay Area. The inflation adjustment relies on the All Urban Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) for the San

Francisco Metropolitan Area. The average CPI-W percent change for each fiscal year has been calculated based on the bi-monthly results reported on the U.S. Department of Labor – Bureau of Labor Statistics website. The CPI-W is used since labor is the largest component of operating cost in transit. Since labor costs are typically controlled through labor contracts, changes in normalized costs largely reflect those factors that are within the day-to-day control of the transit system.

The following discussion is organized to present an overview of Petaluma’s performance trends in each of the five TDA performance indicators. The discussion is organized by service mode – Petaluma’s bus service is discussed first, followed by paratransit. The analysis is expanded to include a breakdown of the various component costs that contributed to the total and hourly operating costs during the last six years. This expanded analysis normally is not included for contracted services, where the cost breakdowns are internal contractor issues; however, we have included them in this report to illustrate the trends in contracted cost categories.

Bus Service Performance Trends

This section provides an overview of the performance of Petaluma’s bus service over the past six years. The trends in the TDA indicators and input statistics are presented in Exhibit 4. The six-year trends are illustrated in Exhibits 4.1 through 4.3.

- Operating Cost Per Vehicle Service Hour (Exhibit 4.1)
 - A key indicator of cost efficiency, the cost per hour of bus service decreased an average of 0.4 percent annually during the six-year review period.
 - The cost per hour ranged from \$87.32 in FY2011 to \$85.72 in FY2016. The cost per hour mostly decreased over the period until FY2016, when increased operating costs, attributed to higher purchased transportation costs, resulted in a cost per hour increase of more than 16 percent.

- In FY2011 constant dollars, there was an average annual decrease in this indicator of 2.8 percent.
- Passengers per Vehicle Service Hour (Exhibit 4.2)
 - A key indicator of passenger productivity, passengers per hour increased an average of 4.0 percent annually during the six-year period.
 - This increase reflects an overall average annual increase of 11.0 percent in passengers combined with an overall average annual increase of 6.7 percent in service hours.
 - Passengers per hour increased overall from 15.3 in FY2011 to 18.6 in FY2016.
- Passengers per Vehicle Service Mile (Exhibit 4.2)
 - Similar to passengers per hour, passengers per mile increased an average of 4.7 percent annually.
 - Passengers per mile increased steadily from 1.11 in FY2011 to a peak of 1.58 in FY2014, before decreasing to 1.39 in FY2016. Decreased ridership resulted in the in FY2016 drop in productivity.
- Operating Cost per Passenger (Exhibit 4.3)
 - A key measure of cost effectiveness, the cost per passenger decreased an average of 4.2 percent annually during the six-year review period.
 - The cost per passenger decreased from \$5.71 in FY2011 to \$4.60 in FY2016, with decreases each year except FY2016, when operating costs increased by 17 percent.
 - Overall, the decrease in cost per passenger reflects the rate of increase in number of passengers outpacing the increase in operating costs over the six-year period.
 - In FY2011 constant dollars, there was an average annual decrease in this indicator of 6.6 percent.

* * * * *

The following is a brief summary of the bus service TDA performance trend highlights over the six-year period of FY2011 through FY2016:

- Cost efficiency improved, with a slight average annual decrease in the operating cost per hour of 0.4 percent, or 2.8 percent in inflation adjusted dollars.
- Cost effectiveness similarly improved, with cost per passenger decreasing on average by 4.2 percent per year, or average annual decrease of 6.6 percent in constant FY2011 dollars.
- Passenger productivity demonstrated positive trends, with passengers per vehicle service hour increasing by 4.0 percent per year overall and passengers per vehicle service mile increasing by 4.7 percent.

Exhibit 4: TDA Indicator Performance - Bus Service

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	Av. Ann. Chg.
Performance Indicators							
Op. Cost per Vehicle Svc. Hour (Actual \$)	\$87.32	\$85.02	\$76.23	\$79.36	\$73.53	\$85.72	- -
<i>Annual Change</i>	- -	-2.6%	-10.3%	4.1%	-7.3%	16.6%	-0.4%
Op. Cost per Vehicle Svc. Hour (Constant \$)	\$87.32	\$82.79	\$72.33	\$73.21	\$66.54	\$75.72	- -
<i>Annual Change</i>	- -	-5.2%	-12.6%	1.2%	-9.1%	13.8%	-2.8%
Passengers per Vehicle Service Hour	15.3	19.2	20.0	21.0	20.1	18.6	- -
<i>Annual Change</i>	- -	25.6%	4.1%	5.0%	-4.4%	-7.3%	4.0%
Passengers per Vehicle Service Mile	1.11	1.46	1.47	1.58	1.52	1.39	- -
<i>Annual Change</i>	- -	31.6%	1.0%	7.5%	-4.0%	-8.3%	4.7%
Op. Cost per Passenger (Actual \$)	\$5.71	\$4.42	\$3.81	\$3.78	\$3.66	\$4.60	- -
<i>Annual Change</i>	- -	-22.5%	-13.9%	-0.9%	-3.1%	25.7%	-4.2%
Op. Cost per Passenger (Constant \$)	\$5.71	\$4.31	\$3.62	\$3.49	\$3.31	\$4.07	- -
<i>Annual Change</i>	- -	-24.5%	-16.1%	-3.6%	-4.9%	22.7%	-6.6%
Vehicle Service Hours per FTE	(a)	(a)	(a)	(a)	(a)	(a)	- -
<i>Annual Change</i>	- -	- -	- -	- -	- -	- -	- -
Input Data							
Operating Cost (Actual \$)	\$1,178,637	\$1,253,316	\$1,210,679	\$1,358,402	\$1,369,079	\$1,601,738	- -
<i>Annual Change</i>	- -	6.3%	-3.4%	12.2%	0.8%	17.0%	6.3%
Operating Cost (Constant \$)	\$1,178,637	\$1,220,366	\$1,148,652	\$1,253,138	\$1,238,986	\$1,414,963	- -
<i>Annual Change</i>	- -	3.5%	-5.9%	9.1%	-1.1%	14.2%	3.7%
Vehicle Service Hours	13,498	14,741	15,881	17,117	18,620	18,686	- -
<i>Annual Change</i>	- -	9.2%	7.7%	7.8%	8.8%	0.4%	6.7%
Vehicle Service Miles	186,383	194,275	215,751	227,229	246,124	249,769	- -
<i>Annual Change</i>	- -	4.2%	11.1%	5.3%	8.3%	1.5%	6.0%
Unlinked Passengers	206,512	283,293	317,671	359,520	373,949	348,009	- -
<i>Annual Change</i>	- -	37.2%	12.1%	13.2%	4.0%	-6.9%	11.0%
Employee Full-Time Equivalents	(a)	(a)	(a)	(a)	(a)	(a)	- -
<i>Annual Change</i>	- -	- -	- -	- -	- -	- -	- -
Bay Area CPI - Annual Change	- -	2.7%	2.6%	2.9%	1.9%	2.5%	- -
- Cumulative Change	- -	2.7%	5.4%	8.4%	10.5%	13.2%	2.5%

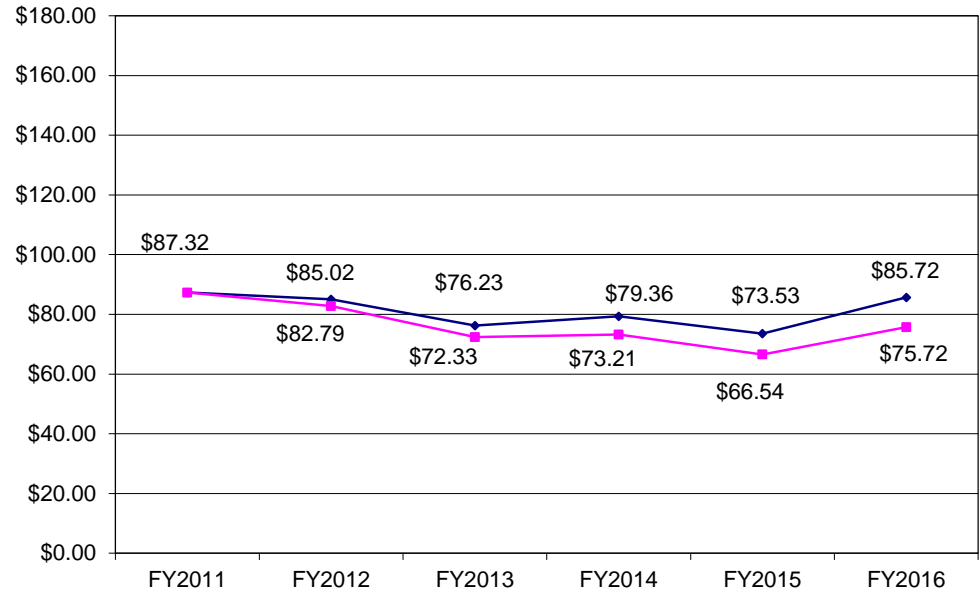
(a) - Contracted service; FTEs not applicable

Sources: FY2011 through FY2013 - Prior Performance Audit Report

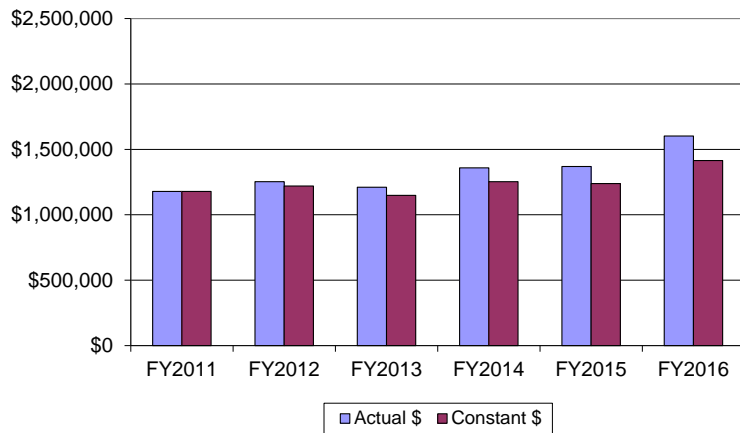
FY2014 through FY2016 - NTD Reports

CPI Data - U.S. Department of Labor, Bureau of Labor Statistics

Exhibit 4.1: Operating Cost per Vehicle Service Hour - Bus Service



Operating Cost



Vehicle Service Hours

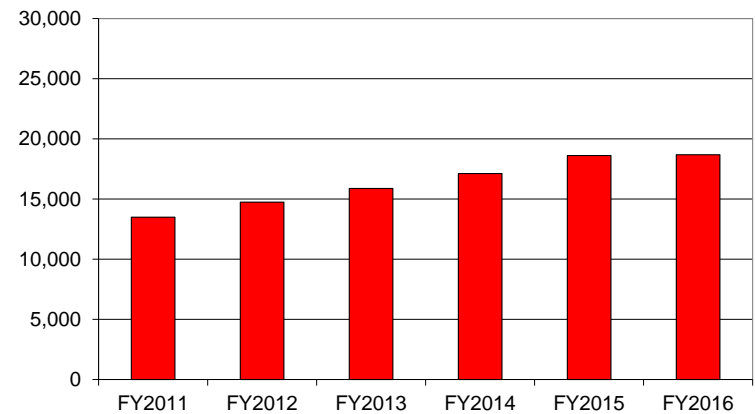
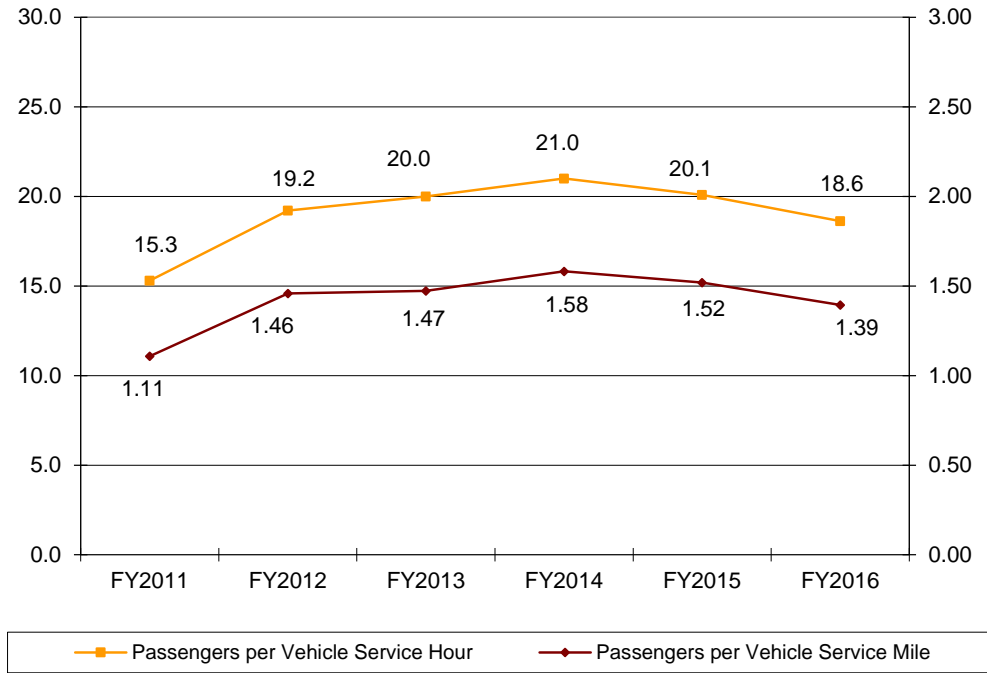
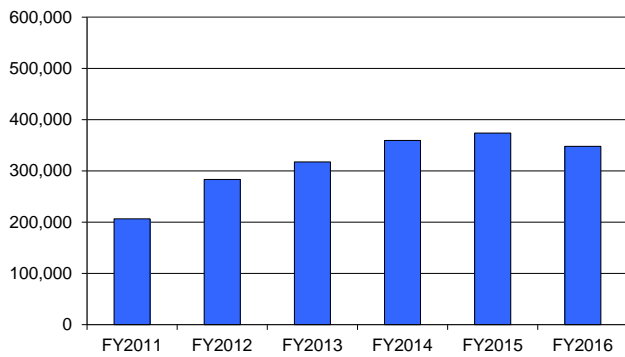


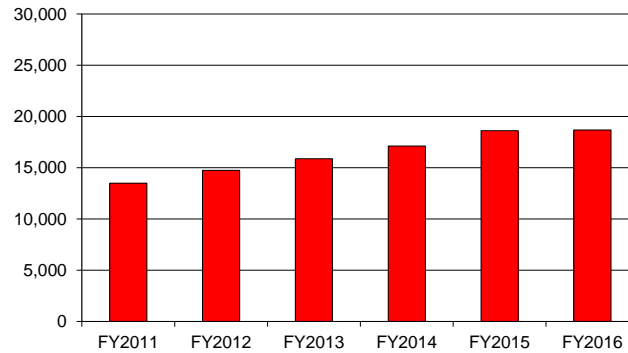
Exhibit 4.2: Passengers per Hour and per Mile – Bus Service



Unlinked Passengers



Vehicle Service Hours



Vehicle Service Miles

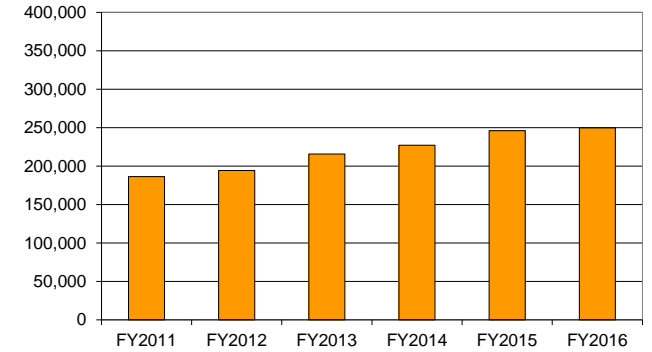
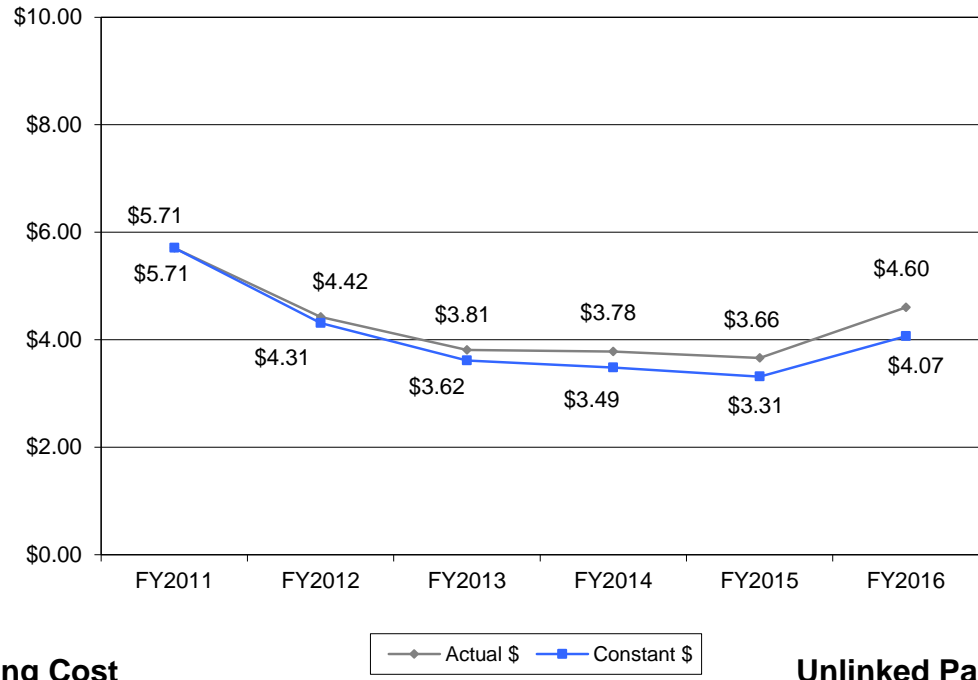
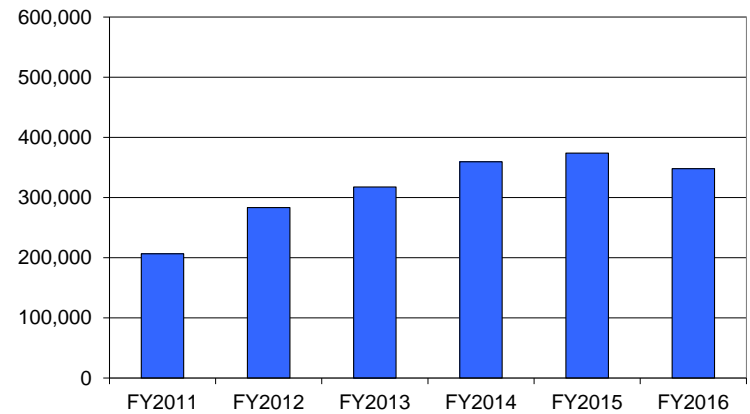
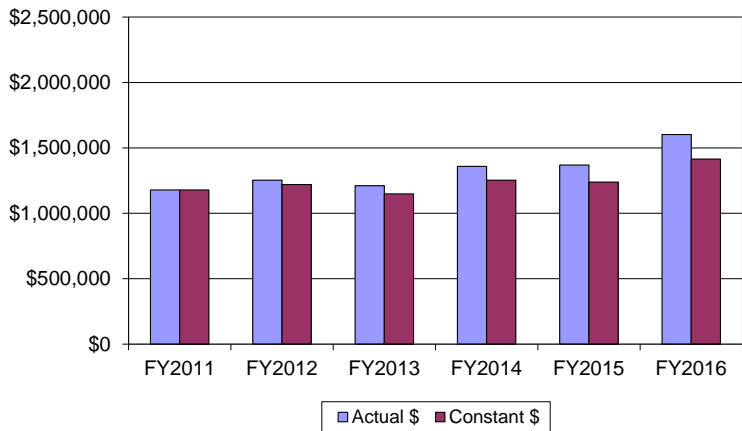


Exhibit 4.3: Operating Cost per Passenger – Bus Service



Operating Cost

Unlinked Passengers



Bus Service Component Costs

Year-to-year changes in selected operating cost categories over the past six years are presented in Exhibit 4.4. Examining components of operating costs (e.g., labor, fringes, fuel, and casualty/liability) may determine what particular components had the most significant impacts on the operating costs. Exhibit 4.4 also shows the concurrent changes in vehicle service hours, and Exhibit 4.5 illustrates the portion of the cost per bus service hour that can be attributed to each included cost component.

- Over the six years, in-house labor costs increased annually on average by 8.6 percent, and fringe benefits costs increased annually by 14.1 percent. Labor costs decreased by almost 30 percent in FY2015, before increasing almost 40 percent in FY2016. This was attributed to inter-governmental fees paid to the City for support services decreasing by \$60,000 in FY2015. Those fees are mostly assigned to the labor category and to a lesser extent, fringe benefits.
- Services costs went up 14.4 percent per year on average, with the largest increases of about 30 percent and 47 percent occurring in FY2014 and FY2015 respectively. These increases were due to increased costs for contracted bus shelter cleaning and contracting for outreach efforts to local schools. Service costs decreased about 10 percent in FY2016. .
- Fuel and lubricants costs were mostly unchanged, decreasing an average of 0.5 percent annually. Casualty and liability costs increased an average of 15 percent annually, most of which occurred in the first three years of the period. There were smaller increases in FY2014 and FY2015, and a 17 percent decrease in FY2016.
- Purchased transportation costs increased an average of 8.8 percent annually. The largest increase occurred in FY2016 at almost 24 percent. This was attributed to additional staff hired by the MV Transportation team to keep up with system growth.
- Costs for other expenses increased an average of 6.3 percent per year. This category includes materials and supplies, taxes, utilities and miscellaneous expenses.

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The following is a brief summary of the bus service component operating costs trend highlights between FY2011 and FY2016:

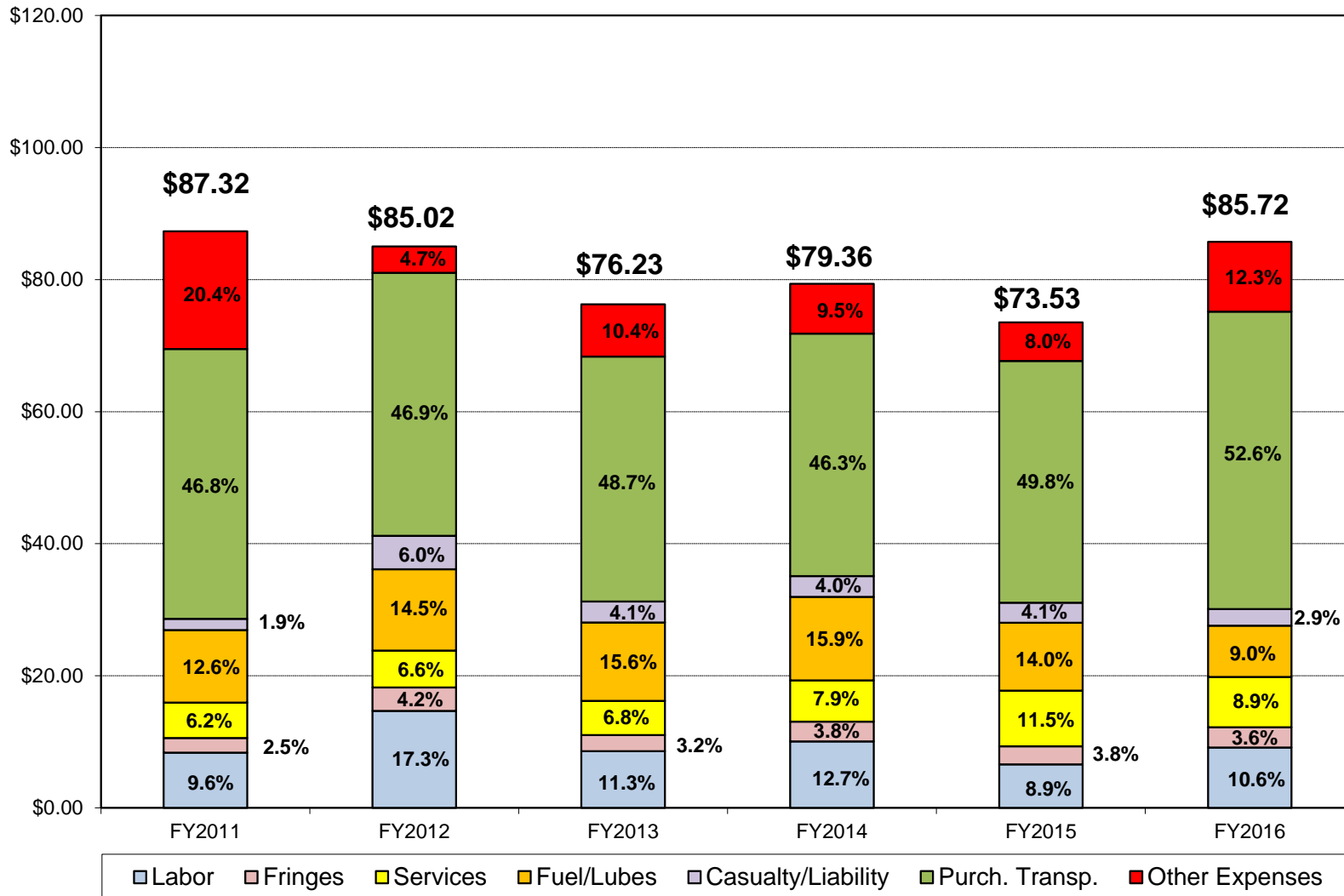
- Labor costs went up by 8.6 percent per year, and fringe benefit costs increased an average of 14 percent per year. Together, these two categories' share of total operating costs remained in the 13 to 15 percent range.
- Services costs also increased about 14 percent annually and averaged between eight and twelve percent of total operating costs over the last three years. Services increased more than 30 percent in FY2014 and 46 percent in FY2015, attributed to increased costs for contracted services such as bus shelter cleaning and local school information outreach.
- Fuel and lubricants costs remained almost unchanged, decreasing an average of 0.5 percent annually. The fuel/lubricants share of total operating costs decreased over the six-year period from about 15 percent to nine percent by FY2016.
- Purchased transportation is the largest cost category, comprising about 50 percent of total operating costs. Purchased transportation costs increased an average of almost nine percent annually over the six-year period.
- Casualty/liability costs increased an average 15.6 percent annually, and remained steady at about four percent of total operating costs. Other miscellaneous costs decreased an average of almost four percent per year and accounted for about eight to twelve percent of total costs.

Exhibit 4.4: TDA Component Cost Trends – Bus Service

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	Av. Ann. Chg.
COST CATEGORIES							
Labor - (Salaries, Wages)	\$112,737	\$216,326	\$136,423	\$172,416	\$122,387	\$170,465	--
<i>Annual Change</i>	--	91.9%	-36.9%	26.4%	-29.0%	39.3%	8.6%
Fringe Benefits	\$29,946	\$52,490	\$38,742	\$51,035	\$51,377	\$57,857	--
<i>Annual Change</i>	--	75.3%	-26.2%	31.7%	0.7%	12.6%	14.1%
Services	\$72,543	\$82,226	\$82,150	\$107,096	\$157,007	\$142,357	--
<i>Annual Change</i>	--	13.3%	-0.1%	30.4%	46.6%	-9.3%	14.4%
Fuel/Lubricants	\$148,311	\$181,672	\$188,605	\$216,452	\$191,181	\$144,935	--
<i>Annual Change</i>	--	22.5%	3.8%	14.8%	-11.7%	-24.2%	-0.5%
Casualty/Liability	\$22,581	\$74,579	\$50,208	\$54,012	\$56,529	\$46,579	--
<i>Annual Change</i>	--	230.3%	-32.7%	7.6%	4.7%	-17.6%	15.6%
Purchased Transportation	\$551,969	\$587,279	\$589,191	\$628,503	\$681,451	\$841,943	--
<i>Annual Change</i>	--	6.4%	0.3%	6.7%	8.4%	23.6%	8.8%
Other Expenses (a)	\$240,550	\$58,744	\$125,360	\$128,888	\$109,147	\$197,602	--
<i>Annual Change</i>	--	-75.6%	113.4%	2.8%	-15.3%	81.0%	-3.9%
Total	\$1,178,637	\$1,253,316	\$1,210,679	\$1,358,402	\$1,369,079	\$1,601,738	--
<i>Annual Change</i>	--	6.3%	-3.4%	12.2%	0.8%	17.0%	6.3%
OPERATING STATISTICS							
Vehicle Service Hours	13,498	14,741	15,881	17,117	18,620	18,686	--
<i>Annual Change</i>	--	9.2%	7.7%	7.8%	8.8%	0.4%	6.7%

Source: FY 2011 –FY2013 prior audit report; FY2014 through FY2016 NTD Reports
(a) Includes other materials/supplies, utilities, taxes and miscellaneous expenses

Exhibit 4.5: Distribution of Component Costs – Bus Service
Operating Cost per Vehicle Service Hour



Paratransit Performance Trends

This section provides an overview of the performance of Petaluma's paratransit service over the six year analysis period. The trends in the TDA indicators and input data are presented in Exhibit 5. The six-year trends are illustrated in Exhibits 5.1 through 5.3.

- Operating Cost per Vehicle Service Hour (Exhibit 5.1)
 - A key indicator of cost efficiency, the cost per hour of paratransit service increased an average of 6.1 percent annually during the six-year review period.
 - The cost per hour increased from \$71.90 in FY2011 to \$96.77 in FY2016, with increases each year except for FY2016. The increase resulted from modest increases in operating costs combined with declining service hours during the audit period.
 - In FY2011 constant dollars, there was an average annual increase in this indicator of 3.5 percent.

- Passengers per Vehicle Service Hour (Exhibit 5.2)
 - A key indicator of passenger productivity, passengers per hour increased by an average of 3.9 percent annually. This is the result of a slight overall increase in ridership combined with decreasing service hours during the audit period.
 - Passengers per hour exhibited an overall improvement six-year period increasing from 2.5 in FY2011 to 3.0 in FY2016.
 - As discussed in the previous section of this report, a reporting anomaly was noticed between service hours and miles in FY2014 and FY2015. Service hours declined in those two years, while service miles increased. These statistics normally move in tandem.

- Passengers per Vehicle Service Mile (Exhibit 5.2)
 - Passengers per vehicle service mile demonstrated an average increase of 2.4 percent annually, similar to passengers per hour, but with a smaller decrease in service miles versus service hours over the six-year period.
 - Passengers per mile improved overall increasing from 0.27 in FY2011 to 0.31 in FY2016, with the highest level, 0.35, occurring in FY2012.
- Operating Cost per Passenger (Exhibit 5.3)
 - A key measure of cost effectiveness, the cost per passenger increased an average of 2.1 percent annually during the six-year review period.
 - The cost per passenger ranged from \$28.95 in FY2011 to \$32.11 in FY2016. A slight overall increase in ridership kept the increase in this indicator at a more moderate level than cost per hour.
 - In FY2011 constant dollars, there was an average annual decrease in this indicator of 0.4 percent.

* * * * *

The following is a brief summary of the paratransit TDA performance trend highlights over the six-year period of FY2010 through FY2015:

- Cost efficiency worsened, with an average annual increase in the operating cost per hour of 6.1 percent. This translated to a 3.5 percent increase in inflation adjusted dollars.
- Cost effectiveness exhibited more moderate performance with cost per passenger increasing an average of 2.1 percent per year in actual dollars. When expressed in constant (inflation-adjusted) dollars, cost effectiveness shows improvement with an average annual decrease of 0.4 percent.

- Passenger productivity demonstrated positive trends, with passengers per vehicle service hour increasing by 3.9 percent overall and passengers per vehicle service mile increasing by 2.4 percent.

Exhibit 5: TDA Indicator Performance – Paratransit

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	Av. Ann. Chg.
Performance Indicators							
Op. Cost per Vehicle Svc. Hour (Actual \$)	\$71.90	\$77.09	\$87.10	\$95.61	\$99.27	\$96.77	- -
<i>Annual Change</i>	- -	7.2%	13.0%	9.8%	3.8%	-2.5%	6.1%
Op. Cost per Vehicle Svc. Hour (Constant \$)	\$71.90	\$75.06	\$82.64	\$88.20	\$89.84	\$85.49	- -
<i>Annual Change</i>	- -	4.4%	10.1%	6.7%	1.9%	-4.8%	3.5%
Passengers per Vehicle Service Hour	2.5	2.7	2.2	2.8	3.0	3.0	- -
<i>Annual Change</i>	- -	7.4%	-18.0%	27.9%	6.5%	1.1%	3.9%
Passengers per Vehicle Service Mile	0.27	0.35	0.33	0.31	0.31	0.31	- -
<i>Annual Change</i>	- -	29.4%	-6.1%	-4.6%	-1.3%	-1.4%	2.4%
Op. Cost per Passenger (Actual \$)	\$28.95	\$28.90	\$39.81	\$34.16	\$33.31	\$32.11	- -
<i>Annual Change</i>	- -	-0.2%	37.8%	-14.2%	-2.5%	-3.6%	2.1%
Op. Cost per Passenger (Constant \$)	\$28.95	\$28.14	\$37.77	\$31.51	\$30.15	\$28.37	- -
<i>Annual Change</i>	- -	-2.8%	34.2%	-16.6%	-4.3%	-5.9%	-0.4%
Vehicle Service Hours per FTE	(a)	(a)	(a)	(a)	(a)	(a)	- -
<i>Annual Change</i>	- -	- -	- -	- -	- -	- -	- -
Input Data							
Operating Cost (Actual \$)	\$664,852	\$630,808	\$867,365	\$867,961	\$881,335	\$811,826	- -
<i>Annual Change</i>	- -	-5.1%	37.5%	0.1%	1.5%	-7.9%	4.1%
Operating Cost (Constant \$)	\$664,852	\$614,224	\$822,927	\$800,702	\$797,588	\$717,161	- -
<i>Annual Change</i>	- -	-7.6%	34.0%	-2.7%	-0.4%	-10.1%	1.5%
Vehicle Service Hours	9,247	8,183	9,958	9,078	8,878	8,389	- -
<i>Annual Change</i>	- -	-11.5%	21.7%	-8.8%	-2.2%	-5.5%	-1.9%
Vehicle Service Miles	84,652	62,173	66,060	80,797	85,251	82,607	- -
<i>Annual Change</i>	- -	-26.6%	6.3%	22.3%	5.5%	-3.1%	-0.5%
Unlinked Passengers	22,965	21,831	21,789	25,411	26,457	25,282	- -
<i>Annual Change</i>	- -	-4.9%	-0.2%	16.6%	4.1%	-4.4%	1.9%
Employee Full-Time Equivalents	(a)	(a)	(a)	(a)	(a)	(a)	- -
<i>Annual Change</i>	- -	- -	- -	- -	- -	- -	- -
Bay Area CPI - Annual Change	- -	2.7%	2.6%	2.9%	1.9%	2.5%	- -
- Cumulative Change	- -	2.7%	5.4%	8.4%	10.5%	13.2%	2.5%

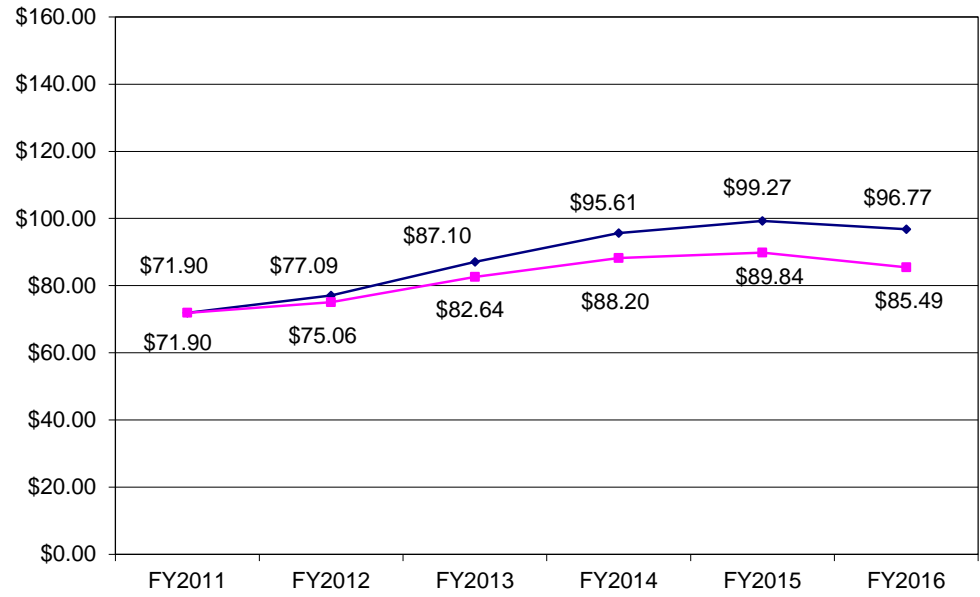
(a) - Contracted service; FTEs not applicable

Sources: FY2011 through FY2013 - Prior Performance Audit Report

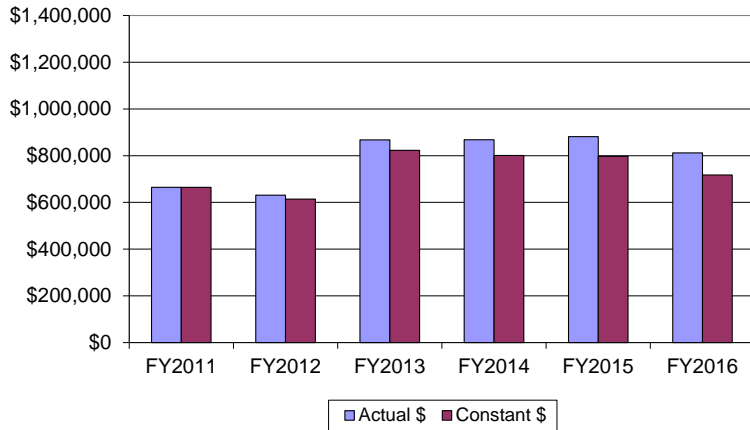
FY2014 through FY2016 - NTD Reports

CPI Data - U.S. Department of Labor, Bureau of Labor Statistics

Exhibit 5.1: Operating Cost per Vehicle Service Hour – Paratransit



Operating Cost



Vehicle Service Hours

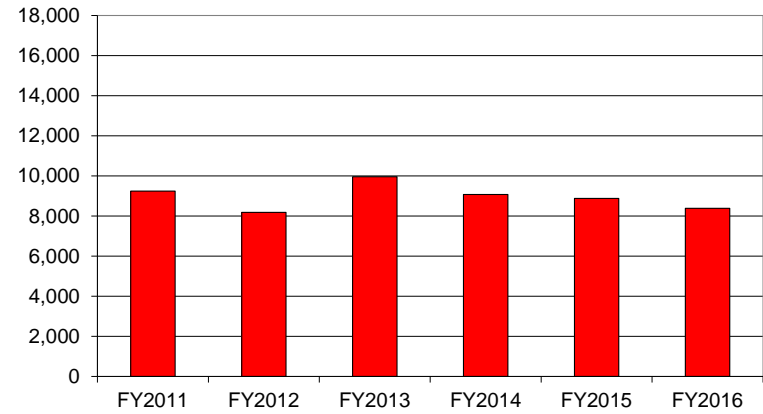
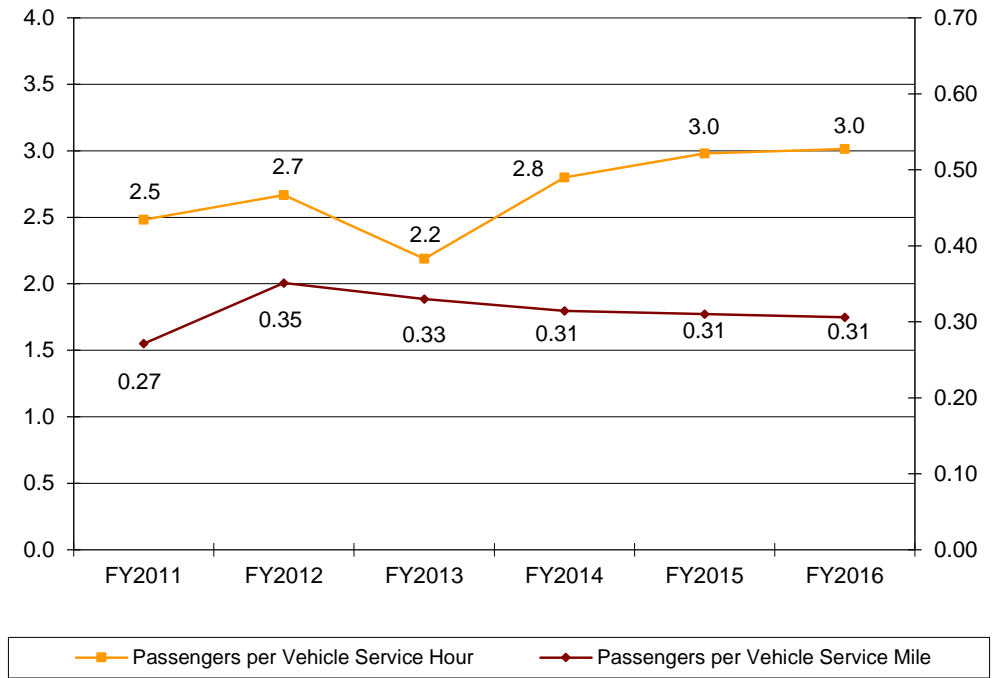
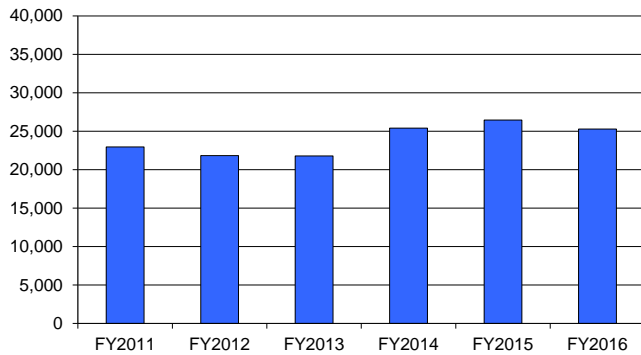


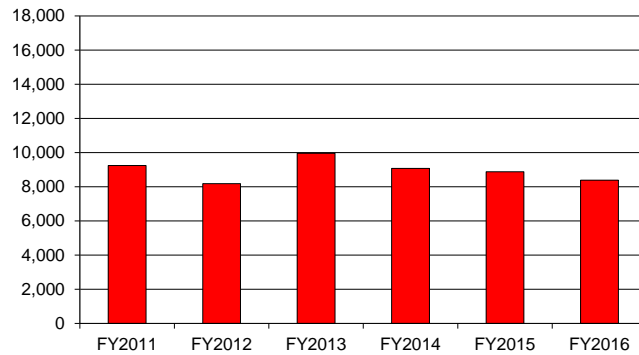
Exhibit 5.2: Passengers per Hour and per Mile – Paratransit



Unlinked Passengers



Vehicle Service Hours



Vehicle Service Miles

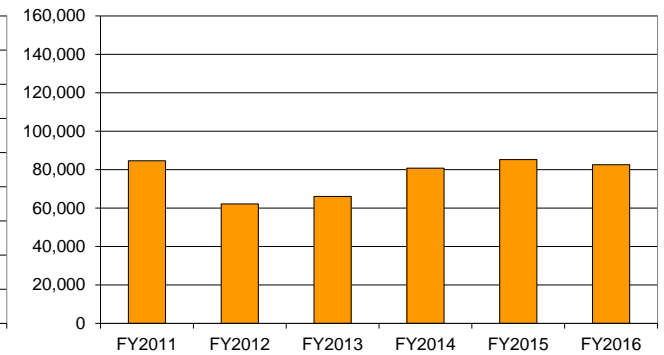
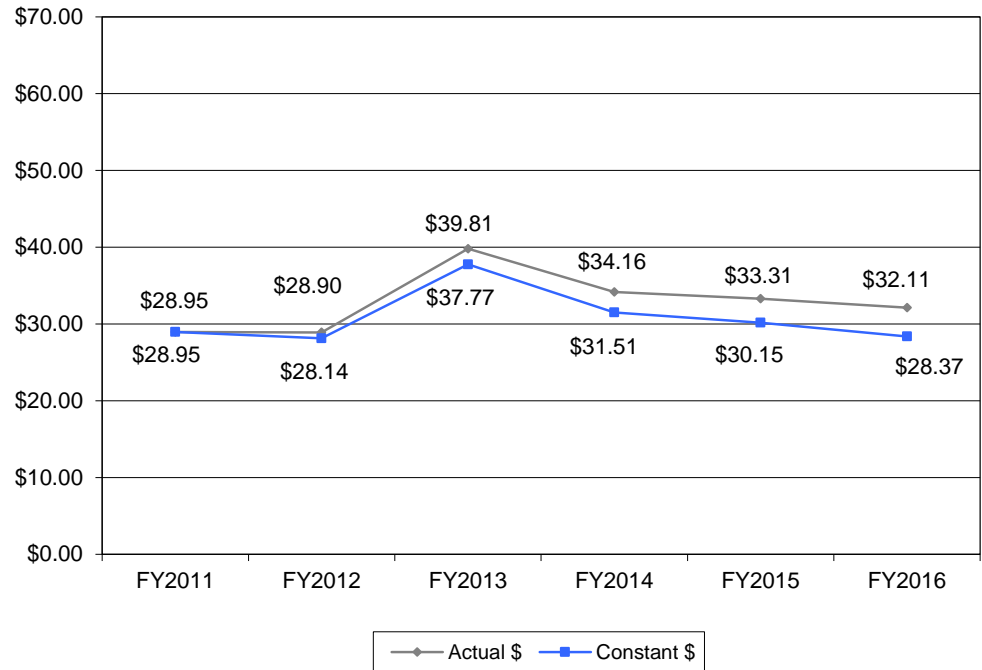
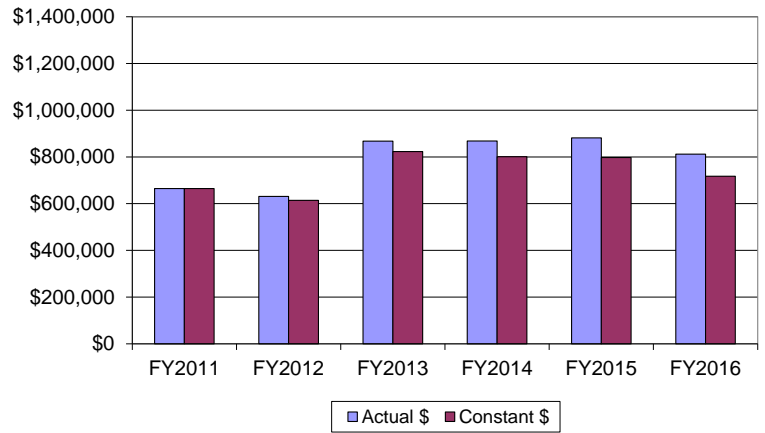


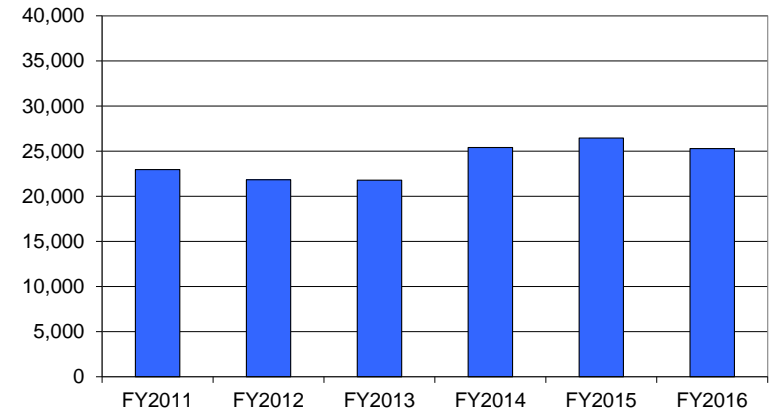
Exhibit 5.3: Operating Cost per Passenger – Paratransit



Operating Cost



Unlinked Passengers



Paratransit Component Costs

The year-to-year changes in selected operating cost categories over the current audit are presented in Exhibit 5.4, along with the concurrent changes in vehicle service hours. The portions of the cost per vehicle service hour that can be attributed to each included cost component are shown in Exhibit 5.5.

- Total annual costs increased by about four percent on average between FY2011 and FY2016.
- In-house labor costs and fringe benefits costs both increased over the review period, by an average of about 11 and 17 percent per year, respectively. The majority of the costs increase occurred in the earlier part of the review period, with labor costs actually decreasing in each of the last three years.
- The most significant change in the component costs was a 66.7 percent average annual increase in services. As with labor, the largest increases in service costs occurred in the first three years of the review period, with the exception of a 52 percent increase in FY2016. The 2016 increase was attributed to a new contract for paratransit eligibility evaluation services.
- Purchased transportation costs decreased on average by 1.5 percent annually. Purchased transportation comprised the largest share of total cost per vehicle hour – ranging between 55 and 60 during the FY2014-FY2016 period.
- In the remaining cost categories, there was about a four percent annual reduction in fuel/lubricants costs, and a six percent annual increase in casualty/liability expenses. Costs in the other expenses category increased an average of nearly 27 percent annually.

* * * * *

The following is a brief summary of the paratransit component operating costs trend highlights between FY2011 and FY2016:

- Total annual costs increased by about four percent on average, with the largest average annual increase of almost 68 percent in the services category. The services component share of total operating costs also increased from about one percent in FY2011 to about nine percent in FY2016. The increase in services costs in the current audit period (FY2014 - 2016) is attributed to higher costs for contracted services in 2016.
- In-house labor and fringe benefits costs both increased overall, by about 11 and 17 percent annually, with the majority of the increase occurring in the first three years of the audit period. Labor costs comprised about 20 percent of total costs in FY2013, dropping to about 15 percent by the end of the period. Fringe benefits consistently made up about five percent of the total operating costs.
- Purchased transportation costs comprised the largest share of total costs at between 55 and 60 percent annually. Purchased transportation decreased on average by 1.5 percent annually over the audit period.
- Fuel costs decreased an average of four percent annually, while casualty and other costs showed annual increases of about six and 27 percent, respectively. These cost categories each comprise less than ten percent of total operating costs each year.

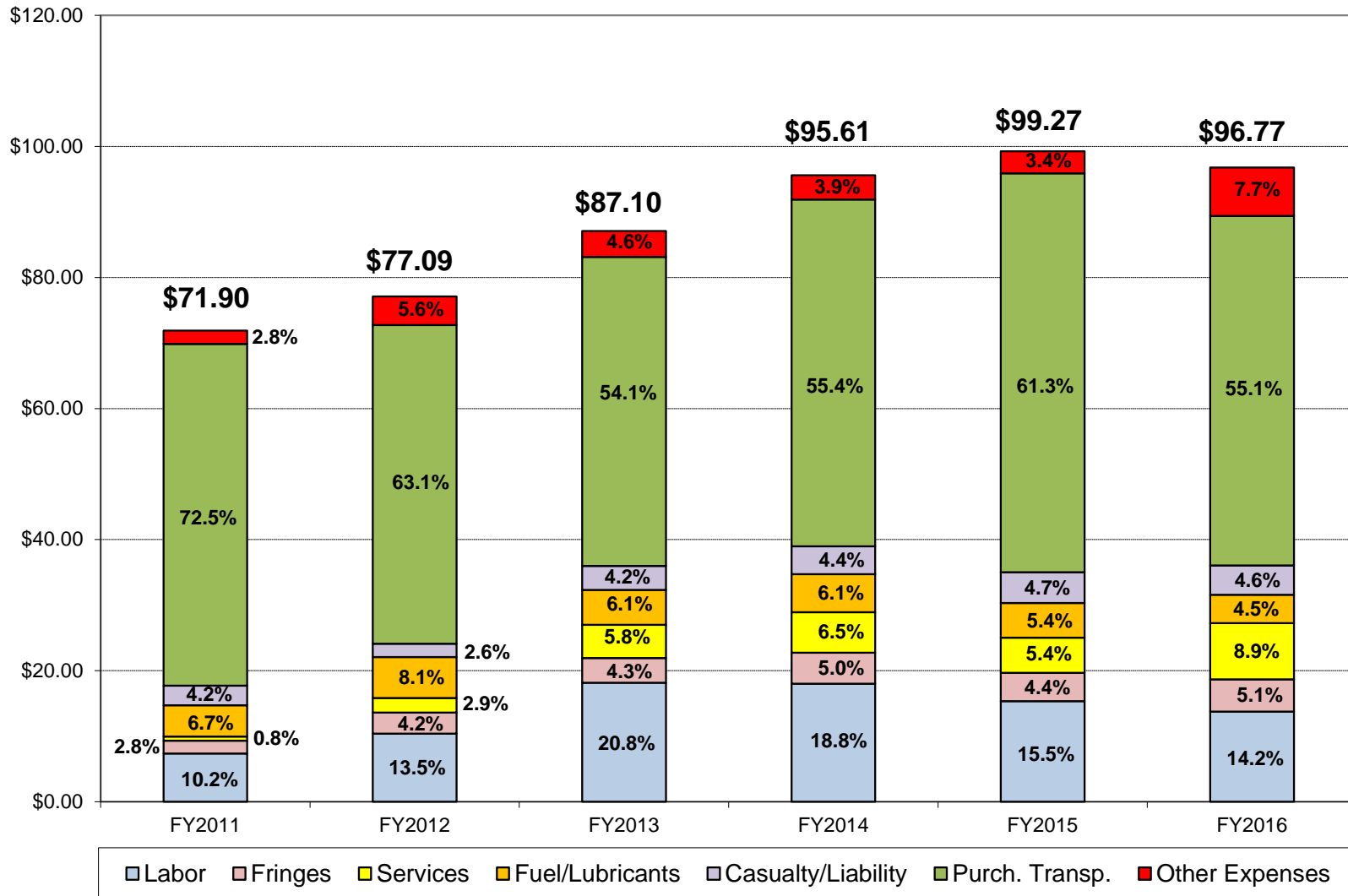
Exhibit 5.4: TDA Component Cost Trends – Paratransit

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	Av. Ann. Chg.
COST CATEGORIES							
Labor - (Salaries, Wages)	\$68,023	\$84,998	\$180,643	\$163,347	\$136,383	\$115,342	--
Annual Change	--	25.0%	112.5%	-9.6%	-16.5%	-15.4%	11.1%
Fringe Benefits	\$18,307	\$26,266	\$37,667	\$43,075	\$38,340	\$41,326	--
Annual Change	--	43.5%	43.4%	14.4%	-11.0%	7.8%	17.7%
Services	\$5,602	\$18,267	\$50,488	\$55,984	\$47,414	\$72,014	--
Annual Change	--	226.1%	176.4%	10.9%	-15.3%	51.9%	66.7%
Fuel/Lubricants	\$44,303	\$51,206	\$53,140	\$52,923	\$47,153	\$36,311	--
Annual Change	--	15.6%	3.8%	-0.4%	-10.9%	-23.0%	-3.9%
Casualty/Liability	\$27,714	\$16,492	\$36,526	\$38,411	\$41,627	\$37,326	--
Annual Change	--	-40.5%	121.5%	5.2%	8.4%	-10.3%	6.1%
Purchased Transportation	\$481,986	\$398,000	\$469,380	\$480,612	\$540,311	\$447,378	--
Annual Change	--	-17.4%	17.9%	2.4%	12.4%	-17.2%	-1.5%
Other Expenses (a)	\$18,917	\$35,579	\$39,521	\$33,609	\$30,107	\$62,129	--
Annual Change	--	88.1%	11.1%	-15.0%	-10.4%	106.4%	26.8%
Total	\$664,852	\$630,808	\$867,365	\$867,961	\$881,335	\$811,826	--
Annual Change	--	-5.1%	37.5%	0.1%	1.5%	-7.9%	4.1%
OPERATING STATISTICS							
Vehicle Service Hours	9,247	8,183	9,958	9,078	8,878	8,389	--
Annual Change	--	-11.5%	21.7%	-8.8%	-2.2%	-5.5%	-1.9%

Source: FY2011 - FY2013, prior audit; FY2014 through FY2016 – NTD Reports

(a) Includes other materials/supplies, utilities, taxes and miscellaneous expenses

Exhibit 5.5: Distribution of Component Costs – Paratransit
Operating Cost per Vehicle Service Hour



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IV. COMPLIANCE WITH PUC REQUIREMENTS

An assessment of Petaluma's compliance with selected sections of the state Public Utilities Code (PUC) has been performed. The compliance areas included in this review are those that MTC has identified for inclusion in the triennial performance audit. Other statutory and regulatory compliance requirements are reviewed by MTC in conjunction with its annual review of Petaluma's TDA-STA claim application.

The results from this review are detailed by individual requirement in Exhibit 6. Petaluma is in compliance with each of the seven sections of the state PUC that were reviewed as part of this performance audit. These sections included requirements concerning CHP terminal safety inspections, labor contracts, reduced fares, Welfare-to-Work, revenue sharing, and evaluating passenger needs. Petaluma did not receive a CHP inspection in 2015.

Exhibit 6: Compliance with State PUC Requirements

Code Reference	Operator Compliance Requirements	Compliance Finding	Verification Information
PUC99251	<u>CHP Certification</u> - The CHP has, within the 13 months prior to each TDA claim submitted by an operator, certified the operator's compliance with Vehicle Code Section 1808 following a CHP inspection of the operator's terminal	In Compliance	Satisfactory Facility Inspections: <ul style="list-style-type: none"> • 05/15/2014 • No CHP inspection done in 2015 • 09/19/2016
PUC99264	<u>Operator-to-Vehicle Staffing</u> - The operator does not routinely staff with two or more persons public transportation vehicles designed to be operated by one person	In Compliance	No provision for excess staffing in Agreement with MV Transportation, effective 09/12/11.
PUC99314.5 (e)(1)(2)	<u>Part Time Drivers and Contracting</u> - Operators receiving STA funds are not precluded by contract from employing part-time drivers or from contracting with common carriers	In Compliance	<ul style="list-style-type: none"> • <u>Part Time Drivers</u> – No prohibition of part-time employees in Agreement with MV Transportation, effective 09/12/11. • <u>Contracting</u> – Petaluma contracts with MV Transportation to operate the Petaluma Transit fixed-route and Paratransit.
PUC99155	<u>Reduced Fare Eligibility</u> - For any operator who received TDA Article 4 funds, if the operator offers reduced fares to senior citizens and disabled persons, applicant will honor the federal Medicare identification card, the California Department of Motor Vehicles disability ID card, the Regional Transit Connection Discount Card, or any other current identification card issued by another transit operator that is valid for the type of transportation service or discount requested; and if the operator offers reduced fares to senior citizens, it also offers the same reduced fare to disabled patrons	In Compliance	Reduced fare information in public information materials: <ul style="list-style-type: none"> • Petaluma Transit System Map and Schedules – August 2016. • City of Petaluma Transit website: http://transit.cityofpetaluma.net/fares/

Code Reference	Operator Compliance Requirements	Compliance Finding	Verification Information
PUC99155.1 (a)(1)(2)	<u>Welfare to Work Coordination</u> - Operators must coordinates with county welfare departments in order to ensure that transportation moneys available for purposes of assisting recipients of aid are expended efficiently for the benefit of that population; if a recipient of CalWORKs program funds by the county, the operator shall give priority to the enhancement of public transportation services for welfare-to-work purposes and to the enhancement of transportation alternatives, such as, but not limited to, subsidies or vouchers, van pools, and contract paratransit operations, in order to promote welfare-to-work purposes	In Compliance	Coordination efforts include: <ul style="list-style-type: none"> • Petaluma is a stakeholder in the MTC Coordinated Public Transit-Human Services Transportation Plan, directed by MTC as the RTAP and MPO for the Bay Area.
PUC99314.7, Govt Code 66516, MTC Res. Nos. 3837, 4073	<u>Joint Revenue Sharing Agreement</u> - The operator has current joint fare revenue sharing agreements in place with transit operators in the MTC region with which its service connects, and submitted copies of agreements to MTC	In Compliance	Valid transfer/revenue sharing agreements with connecting operators: <ul style="list-style-type: none"> • Cities of Cloverdale, Healdsburg, Petaluma, Sebastopol, Sonoma County Transit, GGBHTD (SuperPass agreement). • GGBHTD, Sonoma County Transit, City of Santa Rosa, Marin County Transit District, Sonoma-Marin Area Rail Transit (approval pending).
PUC99246(d)	<u>Process for Evaluation of Passenger Needs</u> - The operator has an established process in place for evaluating the needs and types of passengers being served	In Compliance	<ul style="list-style-type: none"> • SRTP FY2016-2026 includes service demand evaluation, fixed-route and paratransit service and systems evaluation: current operating framework, performance trends, demand forecasts, current system challenges and recommendations. Also contains operating plan and capital improvement program. • Bi-annual on-board passenger surveys; focused outreach efforts for special projects, and school outreach for tripper service.

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V. STATUS OF PRIOR AUDIT RECOMMENDATIONS

Petaluma's prior performance audit was completed in May 2014. Generally, MTC has used the audit recommendations as the basis for developing the Productivity Improvement Program (PIP) projects the operator is required to complete. MTC tracks PIP project implementation as part of its annual review of the operator's TDA-STA claim application. This section provides an assessment of actions taken by TDA-STA recipients toward implementing the recommendations advanced in the prior audit. This assessment provides continuity between the current and prior audits, which allows MTC to fulfill its obligations where the recommendations were advanced as PIP projects.

This review addresses Petaluma's responses to the recommendations made in the prior performance audit, and whether Petaluma made reasonable progress toward their implementation. However, there were no recommendations made in Petaluma's prior audit.

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VI. FUNCTIONAL PERFORMANCE INDICATOR TRENDS

To further assess Petaluma's performance over the past three years, a detailed set of functional area performance indicators was defined. This assessment consists of a three-year trend analysis of the functions in each of the following areas:

- Management, Administration and Marketing
- Service Planning
- Operations
- Maintenance
- Safety

The indicators selected for this analysis were primarily those that were tracked regularly by Petaluma or for which input data were maintained by Petaluma on an on-going basis, such as performance reports, contractor reports, annual financial reports and NTD reports. As such, there may be some overlap with the TDA indicators examined earlier in the audit process, but most indicators will be different. Some indicators were selected from the California Department of Transportation's Performance Audit Guidebook for Transit Operators and Regional Transportation Planning Entities as being appropriate for this evaluation. The input statistics for the indicators, along with their sources, are contained in Appendix A at the end of this report.

The trends in performance are presented over the three-year audit period to give an indication of which direction performance is moving for these indicators. The remainder of this section presents the findings from this review. The discussion presents

the highlights of performance by mode (Systemwide, Bus Service and Paratransit), each followed by an exhibit illustrating the indicators by function as applicable.

Systemwide

For the purposes of this review, Petaluma's functional indicators relating to Management, Administration and Marketing have been included generally on a systemwide basis. Audit period performance is discussed below and presented in Exhibit 7.

- Administrative costs remained at about 31 percent of total operating costs throughout the audit period.
- Administrative costs per vehicle service hour varied between \$25 and \$27 - trending about five percent higher overall.
- Marketing costs as a percentage of administrative costs decreased overall, from 8.8 to 6.0 percent. Additionally, marketing cost per passenger trip decreased 23.4 percent from \$0.16 in FY2014 to \$0.12 in FY2016.
- Systemwide farebox recovery ratio decreased slightly from just over 12 percent in the first two years to just over 11 percent in FY2016.

* * * * *

The following is a brief summary of the systemwide functional trend highlights between FY2014 and FY2016:

- Administrative costs were steady at about 31 percent of total operating costs, while also increasing modestly to \$27 per vehicle service hour.

- Spending for marketing costs decreased over 20 percent relative to both total administrative costs and passenger trips.
- The systemwide farebox recovery ratio decreased slightly from about 12 percent to 11 percent.

Exhibit 7: Functional Performance Trends – Systemwide

FUNCTION/Indicator	Actual Performance		
	FY2014	FY2015	FY2016
MANAGEMENT, ADMINISTRATION & MARKETING			
Administrative Cost/Total Operating Cost	30.8%	30.6%	30.7%
<i>Annual Percent Change</i>	--	-0.6%	0.4%
<i>Three Year Percent Change</i>	--	--	-0.2%
Administrative Cost/Vehicle Service Hour	\$26.16	\$25.03	\$27.39
<i>Annual Percent Change</i>	--	-4.3%	9.4%
<i>Three Year Percent Change</i>	--	--	4.7%
Marketing Cost/Total Administrative Cost	8.8%	7.6%	6.0%
<i>Annual Percent Change</i>	--	-13.5%	-20.6%
<i>Three Year Percent Change</i>	--	--	-31.4%
Marketing Cost/Unlinked Passenger Trip	\$0.16	\$0.13	\$0.12
<i>Annual Percent Change</i>	--	-16.5%	-8.3%
<i>Three Year Percent Change</i>	--	--	-23.4%
Farebox Revenue/Operating Cost	12.2%	12.6%	11.6%
<i>Annual Percent Change</i>	--	2.7%	-7.5%
<i>Three Year Percent Change</i>	--	--	-5.1%

Bus Service

Petaluma's bus service functional area trends represent areas of cost efficiency, safety, productivity and service reliability. Audit period performance is discussed below and presented in Exhibit 8.

- Service Planning
 - Operating cost per passenger mile increased over 20 percent from \$1.78 in FY2014 to \$2.17 in FY2016, with the largest increase occurring in the last year.
 - About 97 percent of all vehicle miles traveled were in service, as were about 95 percent of all vehicle hours in all three years.
 - Both passenger productivity measures showed decreasing trends of between 11 and 12 percent during the audit period. The number of passengers carried per service mile ranged between about 1.6 in FY2014 to 1.4 in FY2016. The number of passengers per service hour decreased from 21 to 19 over the three years.

- Operations
 - Vehicle operations costs as a percentage of total operating costs decreased from 61 percent to 56 percent over the three-year period.
 - Vehicle operations costs per service hour decreased from \$48.49 in FY2014 to \$41.97 in FY2015. However, performance worsened in FY2016 when vehicles operations costs increased to \$47.75 per vehicle service hour, resulting in a net decrease of only 1.5 percent for the audit period.
 - Farebox recovery was just over 16 percent for the first two years of the audit period before decreasing to 13.6 percent in FY2016.
 - The TDA recovery ratio, which is calculated as farebox revenue plus local support divided by operating costs less allowable exclusions,

decreased at a rate of 11 percent from 35.4 percent in FY2014 to 31.6 percent in FY2016.

- Data for schedule adherence was only available for FY2016, when on-time performance was 67 percent. Data for FY2014 and FY2015 were not available even though Petaluma’s contractor is required to report schedule adherence data on a weekly and monthly basis per the terms and provisions of their agreement with the City.
- Data for complaints per passenger trip and missed trips were not available for this audit period. Petaluma’s contractor is required to track, investigate, resolve, and report complaint information on a weekly and monthly basis per the terms and provisions of their agreement with the City.

- Maintenance

- Total maintenance costs as a percentage of total operating cost increased from 11 percent to almost 17 percent over the period, due largely to increases in maintenance services and parts purchases.
- Vehicle maintenance costs per service mile increased over the audit period from \$0.45 per mile to \$0.76 per mile, or just over 68 percent between FY2014 and FY2016.
- The City was able to bring down the vehicle spare ratio during the audit period from 38.5 percent in FY2014 to 18.2 percent in FY2016.
- The mean distance between both major and total failures declined by about 55 percent between FY2014 and FY2016. The overall number of total mechanical failures increased from four in FY2014 to ten in FY2016.

- Safety

- The rate of preventable accidents was less than one per every 100,000 vehicle miles in FY2016, the only year in which data was available for this audit period.

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The following is a brief summary of the bus service functional trend highlights between FY2014 and FY2016:

- Service Planning results showed about a 22 percent increase in cost per passenger mile, vehicle miles and hours in service rates of about 97 and 95 percent respectively, and a decrease of about 11 percent for passengers per mile and hour.
- Both vehicle operations cost as a percentage of total costs and vehicle operations costs per hour decreased over the audit period. Farebox recovery decreased from 16 to 13 percent, while the TDA recovery ratio decreased from 35 percent to about 32 percent.
- The only schedule adherence information provided was on-time performance for FY2016. However, this was provided specifically in response to this audit. It was observed that schedule adherence and passenger complaint data were not reported by the contractor throughout the entire audit period, as required.
- Maintenance costs as a percentage of total operating cost increased by nearly 53 percent, and vehicle maintenance cost per mile increased over 68 percent. The vehicle spare ratio decreased over 50 percent. Failure rates for both major and all failures worsened between FY2014 and FY2016, but total failures only increased from four to ten failures over the audit period.
- In the safety area, the rate of preventable accidents was less than one per every 100,000 vehicle miles in FY2016, the only year in which data was provided. It was observed that preventable accident data was not reported by the contractor in the monthly reports throughout the entire audit period as required by the agreement with the City.

Exhibit 8: Functional Performance Trends – Bus Service

FUNCTION/Indicator	Actual Performance		
	FY2014	FY2015	FY2016
SERVICE PLANNING			
Total Operating Cost/Passenger Mile	\$1.78	\$1.73	\$2.17
<i>Annual Percent Change</i>	--	-3.1%	25.7%
<i>Three Year Percent Change</i>	--	--	21.8%
Vehicle Service Miles/Total Miles	98.2%	96.8%	96.5%
<i>Annual Percent Change</i>	--	-1.4%	-0.3%
<i>Three Year Percent Change</i>	--	--	-1.7%
Vehicle Service Hours/Total Hours	94.7%	95.8%	95.2%
<i>Annual Percent Change</i>	--	1.2%	-0.7%
<i>Three Year Percent Change</i>	--	--	0.6%
Passengers/Vehicle Service Mile	1.58	1.52	1.39
<i>Annual Percent Change</i>	--	-4.0%	-8.3%
<i>Three Year Percent Change</i>	--	--	-11.9%
Passengers/Vehicle Service Hour	21.0	20.1	18.6
<i>Annual Percent Change</i>	--	-4.4%	-7.3%
<i>Three Year Percent Change</i>	--	--	-11.3%
OPERATIONS			
Vehicle Operations Cost/Total Operating Cost	61.1%	57.1%	55.7%
<i>Annual Percent Change</i>	--	-6.6%	-2.4%
<i>Three Year Percent Change</i>	--	--	-8.8%
Vehicle Operations Cost/Vehicle Service Hour	\$48.49	\$41.97	\$47.75
<i>Annual Percent Change</i>	--	-13.5%	13.8%
<i>Three Year Percent Change</i>	--	--	-1.5%
Farebox Revenue/Operating Cost	16.1%	16.4%	13.6%
<i>Annual Percent Change</i>	--	1.5%	-16.8%
<i>Three Year Percent Change</i>	--	--	-15.5%
TDA Recovery Ratio (a)	35.4%	36.5%	31.6%
<i>Annual Percent Change</i>	--	3.1%	-13.4%
<i>Three Year Percent Change</i>	--	--	-10.8%
Trips On-Time/Total Trips	(b)	(b)	67.0%
<i>Annual Percent Change</i>	--	--	--
<i>Three Year Percent Change</i>	--	--	--
Complaints/Unlinked Passenger Trip	(b)	(b)	(b)
<i>Annual Percent Change</i>	--	--	--
<i>Three Year Percent Change</i>	--	--	--
Missed Trips/Total Trips	(b)	(b)	(b)
<i>Annual Percent Change</i>	--	--	--
<i>Three Year Percent Change</i>	--	--	--

(a) - Farebox Revenue plus Local Support/Operating Cost less TDA Allowable Exclusions

(b) - Not available

FUNCTION/Indicator	Actual Performance		
	FY2014	FY2015	FY2016
MAINTENANCE			
Vehicle + Non-Veh. Maint. Cost/Total Operating Cost	11.0%	14.3%	16.8%
<i>Annual Percent Change</i>	--	29.9%	17.4%
<i>Three Year Percent Change</i>	--	--	52.6%
Vehicle Maintenance Cost/Vehicle Service Mile	\$0.45	\$0.52	\$0.76
<i>Annual Percent Change</i>	--	16.4%	44.7%
<i>Three Year Percent Change</i>	--	--	68.4%
Spare Vehicles/Total Vehicles	38.5%	27.3%	18.2%
<i>Annual Percent Change</i>	--	-29.1%	-33.3%
<i>Three Year Percent Change</i>	--	--	-52.7%
Mean Distance between Major Failures (Miles)	57,827	127,096	25,873
<i>Annual Percent Change</i>	--	119.8%	-79.6%
<i>Three Year Percent Change</i>	--	--	-55.3%
Mean Distance between All Failures (Miles)	57,827	36,313	25,873
<i>Annual Percent Change</i>	--	-37.2%	-28.7%
<i>Three Year Percent Change</i>	--	--	-55.3%
SAFETY			
Preventable Accidents/100,000 Vehicle Miles	0.00	0.00	0.77
<i>Annual Percent Change</i>	--	--	--
<i>Three Year Percent Change</i>	--	--	--

Paratransit

Petaluma's paratransit functional area trends represent mostly similar areas to the bus service. Audit period performance is discussed below and presented in Exhibit 9.

- Service Planning
 - Operating cost per passenger mile increased slightly overall from \$9.30 in FY2014 to \$9.86 in FY2016.
 - About 92 to 93 percent of all vehicle miles traveled were in service, as were 93 to 94 percent of vehicle hours in all three years.
 - Passenger productivity remained steady at 0.31 passengers per service mile in all three years, while passengers per service hour increased slightly from 2.8 in FY2014 to 3.0 in FY2016.

- Operations
 - Vehicle operations costs per total operating cost decreased from about 59 percent to 50 percent over the three-year period (16 percent decrease).
 - Vehicle operations costs per service hour remained almost unchanged at just over \$56 per hour in FY2014 and FY2015 before decreasing to just under \$48 per hour in FY2016.
 - Paratransit farebox recovery and TDA farebox recovery were the same as no local support or expense exclusions were reported. Farebox recovery increased from just over six percent to almost eight percent during the audit period.
 - On-time trip performance information was provided only for FY2016, when performance was 92.2 percent on-time. Data for FY2014 and FY2015 were not available even though Petaluma's contractor is required to report schedule adherence data on a weekly and monthly basis per the terms and provisions of their contract.

- Passenger complaint data was provided only for FY2016 with the rate of complaints less than 0.1 percent. Petaluma’s contractor is required to complaint information on a weekly and monthly basis per the terms and provisions of their contract.
- ADA capacity measures were reported only for FY2016. In FY2016, there were zero ADA trip denials, 15 percent ADA trip cancellations, five percent ADA late trip cancellations, and 0.1 percent passenger no-shows. Similar data for FY2014 and FY2015 were not reported even though Petaluma’s contractor was required to do so.

- Maintenance

- Maintenance costs as a percentage of total operating cost increased from 5.9 percent in FY2014 to 13.5 percent in FY2016, a rate of increase of almost 128 percent. The increase was attributed to increased costs of maintenance equipment and services.
- Vehicle maintenance costs per service mile also increased during the audit period from \$0.58 per mile in FY2015 to \$1.13 per mile in FY2016, an increase of more than 96 percent.
- The vehicle spare ratio dropped from 14.3 percent in the first two years to zero in FY2016.
- The mean distance between failures increased three percent for both major and total failure categories between FY2014 and FY2016, with only two failures reported over the entire period.

- Safety

- Data for the rate of preventable accidents was not reported for FY2014 and FY2015, and no preventable accidents were reported for FY2016.

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The following is a brief summary of the paratransit functional trend highlights between FY2014 and FY2016:

- Service Planning results showed a six percent increase in operating cost per passenger mile, and consistently 93 percent or more vehicle miles and hours in service. Passengers per mile remained constant over the audit period, while passengers per hour increased almost eight percent.
- Vehicle operations cost per service hour decreased by 15 percent over the audit period. As a percentage of total operating costs, vehicle operations exhibited 15 percent decrease between FY2014 and FY2016. Farebox recovery and TDA recovery ratios performance was the same, increasing from approximately six percent in FY2014 to almost eight percent in FY2016.
- Gaps in the contractor's reporting of required service quality, schedule adherence and complaint data were noted throughout the audit period.
- Maintenance costs more than doubled from six percent to 13.5 percent of total operating costs over the audit period. In addition, vehicle maintenance cost per mile increased by over 96 percent, from \$0.58 per mile to \$1.13 per mile, as a result of rising maintenance equipment and services costs. Mean distance between mechanical failures improved by three percent overall.
- The only year for which data was available for preventable accidents was FY2016, which was provided in response to the auditor's request. No accident data was reported by the contractor in the monthly reports throughout the entire audit period, as required under the terms of the agreement with the City.

Exhibit 9: Functional Performance Trends – Paratransit

FUNCTION/Indicator	Actual Performance		
	FY2014	FY2015	FY2016
SERVICE PLANNING			
Total Operating Cost/Passenger Mile	\$9.30	\$8.87	\$9.86
<i>Annual Percent Change</i>	--	-4.6%	11.1%
<i>Three Year Percent Change</i>	--	--	6.0%
Vehicle Service Miles/Total Miles	93.5%	91.2%	92.7%
<i>Annual Percent Change</i>	--	-2.5%	1.7%
<i>Three Year Percent Change</i>	--	--	-0.8%
Vehicle Service Hours/Total Hours	94.1%	94.6%	93.3%
<i>Annual Percent Change</i>	--	0.6%	-1.4%
<i>Three Year Percent Change</i>	--	--	-0.8%
Passengers/Vehicle Service Mile	0.31	0.31	0.31
<i>Annual Percent Change</i>	--	-1.3%	-1.4%
<i>Three Year Percent Change</i>	--	--	-2.7%
Passengers/Vehicle Service Hour	2.80	2.98	3.01
<i>Annual Percent Change</i>	--	6.5%	1.1%
<i>Three Year Percent Change</i>	--	--	7.7%

FUNCTION/Indicator	Actual Performance		
	FY2014	FY2015	FY2016
OPERATIONS			
Vehicle Operations Cost/Total Operating Cost	58.8%	56.8%	49.5%
<i>Annual Percent Change</i>	--	-3.4%	-12.9%
<i>Three Year Percent Change</i>	--	--	-15.8%
Vehicle Operations Cost/Vehicle Service Hour	\$56.19	\$56.38	\$47.87
<i>Annual Percent Change</i>	--	0.3%	-15.1%
<i>Three Year Percent Change</i>	--	--	-14.8%
Farebox Revenue/Operating Cost	6.2%	6.7%	7.7%
<i>Annual Percent Change</i>	--	8.1%	15.1%
<i>Three Year Percent Change</i>	--	--	24.4%
TDA Recovery Ratio (a)	6.2%	6.7%	7.7%
<i>Annual Percent Change</i>	--	8.1%	15.1%
<i>Three Year Percent Change</i>	--	--	24.4%
Trips On-Time Percentage	(b)	(b)	92.2%
<i>Annual Percent Change</i>	--	--	--
<i>Three Year Percent Change</i>	--	--	--
Complaints/Unlinked Passenger Trips	(b)	(b)	0.08%
<i>Annual Percent Change</i>	--	--	--
<i>Three Year Percent Change</i>	--	--	--
Missed Trips/Total Trips	0.0	0.0	0.0
<i>Annual Percent Change</i>	--	--	--
<i>Three Year Percent Change</i>	--	--	--
ADA Trip Denials/Total ADA Trips	(c)	(c)	0.0
<i>Annual Percent Change</i>	--	--	--
<i>Three Year Percent Change</i>	--	--	--
Trip Cancellations/Total ADA Trips	(b)	(b)	15.4%
<i>Annual Percent Change</i>	--	--	--
<i>Three Year Percent Change</i>	--	--	--
Late Trip Cancellations/Total ADA Trips	(b)	(b)	5.0%
<i>Annual Percent Change</i>	--	--	--
<i>Three Year Percent Change</i>	--	--	--
No-Shows/Total ADA Trips	(b)	(b)	0.1%
<i>Annual Percent Change</i>	--	--	--
<i>Three Year Percent Change</i>	--	--	--

(a) - Farebox Revenue plus Local Support/Operating Cost less TDA Allowable Exclusions

(b) - Not reported

(c) - Not available

FUNCTION/Indicator	Actual Performance		
	FY2014	FY2015	FY2016
MAINTENANCE			
Vehicle + Non-Veh. Maint. Cost/Total Operating Cost	5.9%	9.6%	13.5%
<i>Annual Percent Change</i>	--	61.8%	40.8%
<i>Three Year Percent Change</i>	--	--	127.9%
Vehicle Maintenance Cost/Vehicle Service Mile	\$0.58	\$0.88	\$1.13
<i>Annual Percent Change</i>	--	53.0%	28.3%
<i>Three Year Percent Change</i>	--	--	96.3%
Spare Vehicles/Total Vehicles	14.3%	14.3%	0.0%
<i>Annual Percent Change</i>	--	0.0%	-100.0%
<i>Three Year Percent Change</i>	--	--	-100.0%
Mean Dist. betw. Major Failures (Miles)	86,398	93,488	89,067
<i>Annual Percent Change</i>	--	8.2%	-4.7%
<i>Three Year Percent Change</i>	--	--	3.1%
Mean Dist. betw. All Failures (Miles)	86,398	93,488	89,067
<i>Annual Percent Change</i>	--	8.2%	-4.7%
<i>Three Year Percent Change</i>	--	--	3.1%
SAFETY			
Preventable Accidents/100,000 Vehicle Miles	(a)	(a)	0.00
<i>Annual Percent Change</i>	--	--	--
<i>Three Year Percent Change</i>	--	--	--

(a) - Not reported

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VII. CONCLUSIONS AND RECOMMENDATIONS

The preceding sections presented a review of Petaluma's transit service performance during the three-year period of FY2014 through FY2016 (July 1, 2013 through June 30, 2016). They focused on TDA compliance issues including trends in TDA-mandated performance indicators and compliance with selected sections of the state Public Utilities Code (PUC). They also provided the findings from an overview of Petaluma's data collection activities to support the TDA indicators, actions taken to implement recommendations from the prior performance audit, and a review of selected key functional performance results.

Conclusions

The key findings and conclusions from the individual sections of this performance audit are summarized below:

- Data Collection – Petaluma is in compliance with the data collection and reporting requirements for all five TDA statistics. The statistics indicate general consistency in terms of the direction and magnitude of the year-to-year changes across the statistics. While the statistics collected over the period appear to be consistent with the TDA definitions, some reporting consistency exceptions were noted.

The statistics for paratransit vehicle service hours and vehicle service miles were trending in opposite directions in FY2014 and FY2015. Vehicle service hours declined by 8.8 and 2.2 percent in those two years, while the vehicle service miles increased 22.3 and 5.5 percent. Normally, these statistics move in tandem.

Discussions with Petaluma staff indicated that data problems with their Trapeze Novus paratransit scheduling software caused these anomalies, which were noticed during NTD reporting. Working with NTD analysts to

identify the problems, and using sample service weeks to compare on-board data with software reported data, Petaluma was able to identify the data reporting problems. Petaluma upgraded their paratransit software package during FY2016 to improve data reporting. More recent tests of reported data appear to confirm the upgrade has improved data quality

- TDA Performance Trends

Petaluma's performance trends for the five TDA-mandated indicators were analyzed by mode. A six-year analysis period was used for all the indicators. In addition, component operating costs were analyzed.

Bus Service – The following is a brief summary of the TDA performance trend highlights over the six-year period of FY2011 through FY2016:

- Cost efficiency improved, with a slight average annual decrease in the operating cost per hour of 0.4 percent, or 2.8 percent in inflation adjusted dollars.
- Cost effectiveness similarly improved, with cost per passenger decreasing on average by 4.2 percent per year, or average annual decrease of 6.6 percent in constant FY2011 dollars.
- Passenger productivity demonstrated positive trends, with passengers per vehicle service hour increasing by 4.0 percent per year overall and passengers per vehicle service mile increasing by 4.7 percent.

The following is a brief summary of the component operating costs trend highlights for the bus service between FY2011 and FY2016:

- Labor costs went up by 8.6 percent per year, and fringe benefit costs increased an average of 14 percent per year. Together, these two categories' share of total operating costs remained in the 13 to 15 percent range.
- Services costs also increased about 14 percent annually and averaged between eight and twelve percent of total operating costs over the

last three years. Services increased more than 30 percent in FY2014 and 46 percent in FY2015, attributed to increased costs for contracted services such as bus shelter cleaning and local school information outreach.

- Fuel and lubricants costs remained almost unchanged, decreasing an average of 0.5 percent annually. The fuel/lubricants share of total operating costs decreased over the six-year period from about 15 percent to nine percent by FY2016.
- Purchased transportation is the largest cost category, comprising about 50 percent of total operating costs. Purchased transportation costs increased an average of almost nine percent annually over the six-year period.
- Casualty/liability costs increased an average 15.6 percent annually, and remained steady at about four percent of total operating costs. Other miscellaneous costs decreased an average of almost four percent per year and accounted for about eight to twelve percent of total costs.

Paratransit – The following is a brief summary of the TDA performance trend highlights over the six-year period of FY2011 through FY2016:

- Cost efficiency worsened, with an average annual increase in the operating cost per hour of 6.1 percent. This translated to a 3.5 percent increase in inflation adjusted dollars.
- Cost effectiveness exhibited more moderate performance with cost per passenger increasing an average of 2.1 percent per year in actual dollars. When expressed in constant (inflation-adjusted) dollars, cost effectiveness shows improvement with an average annual decrease of 0.4 percent.
- Passenger productivity demonstrated positive trends, with passengers per vehicle service hour increasing by 3.9 percent overall and passengers per vehicle service mile increasing by 2.4 percent.

The following is a brief summary of the component operating costs trend highlights for paratransit between FY2011 and FY2016:

- Total annual costs increased by about four percent on average, with the largest average annual increase of almost 68 percent in the services category. The services component share of total operating costs also increased from about one percent in FY2011 to about nine percent in FY2016. The increase in services costs in the current audit period (FY2014 -2016) is attributed to higher costs for contracted services in 2016.
 - In-house labor and fringe benefits costs both increased overall, by about 11 and 17 percent annually, with the majority of the increase occurring in the first three years of the audit period. Labor costs comprised about 20 percent of total costs in FY2013, dropping to about 15 percent by the end of the period. Fringe benefits consistently made up about five percent of the total operating costs.
 - Purchased transportation costs comprised the largest share of total costs at between 55 and 60 percent annually. Purchased transportation decreased on average by 1.5 percent annually over the audit period.
 - Fuel costs decreased an average of four percent annually, while casualty and other costs showed annual increases of about six and 27 percent, respectively. These cost categories each comprise less than ten percent of total operating costs each year.
- PUC Compliance – Petaluma is in compliance with the sections of the state PUC that were reviewed as part of this performance audit. These sections included requirements concerning CHP terminal safety inspections, labor contracts, reduced fares, Welfare-to-Work, revenue sharing, and evaluating passenger needs. Petaluma did not receive a CHP inspection in 2015.
 - Status of Prior Audit Recommendations – There were no recommendations made in Petaluma’s prior performance audit.

- Functional Performance Indicator Trends

To further assess Petaluma's performance over the past three years, a detailed set of systemwide and modal functional area performance indicators was defined and reviewed.

Systemwide – The following is a brief summary of the systemwide functional trend highlights between FY2014 and FY2016:

- Administrative costs were steady at about 31 percent of total operating costs, while also increasing slightly to \$27 per vehicle service hour.
- Spending for marketing costs decreased over 20 percent relative to both total administrative costs and passenger trips.
- The systemwide farebox recovery ratio decreased modestly from about 12 percent to 11 percent.

Bus Service – The following is a brief summary of the bus service functional trend highlights between FY2014 and FY2016:

- Service Planning results showed about a 22 percent increase in cost per passenger mile, vehicle miles and hours in service rates of about 97 and 95 percent respectively, and a decrease of about 11 percent for passengers per mile and hour.
- Both vehicle operations cost as a percentage of total costs and vehicle operations costs per hour decreased over the audit period. Farebox recovery decreased from 16 to 13 percent, while the TDA recovery ratio decreased from 35 percent to about 32 percent.
- The only schedule adherence information provided was on-time performance for FY2016. However, this was provided specifically in response to this audit. It was observed that schedule adherence and passenger complaint data were not reported by the contractor throughout the entire audit period, as required.

- Maintenance costs as a percentage of total operating cost increased by nearly 53 percent, and vehicle maintenance cost per mile increased over 68 percent. The vehicle spare ratio decreased over 50 percent. Failure rates for both major and all failures worsened between FY2014 and FY2016, but total failures only increased from four to ten failures over the audit period.
- In the safety area, the rate of preventable accidents was less than one per every 100,000 vehicle miles in FY2016, the only year in which data was provided. It was observed that preventable accident data was not reported by the contractor in the monthly reports throughout the entire audit period as required by the agreement with the City.

Paratransit – The following is a brief summary of the paratransit functional trend highlights between FY2014 and FY2016:

- Service Planning results showed a six percent increase in operating cost per passenger mile, and consistently 93 percent or more vehicle miles and hours in service. Passengers per mile remained constant over the audit period, while passengers per hour increased almost eight percent.
- Vehicle operations cost per service hour decreased by 15 percent over the audit period. As a percentage of total operating costs, vehicle operations exhibited 15 percent decrease between FY2014 and FY2016. Farebox recovery and TDA recovery ratios performance was the same, increasing from approximately six percent in FY2014 to almost eight percent in FY2016.
- Gaps in the contractor’s reporting of required service quality, schedule adherence and complaint data were noted throughout the audit period.
- Maintenance costs more than doubled from six percent to 13.5 percent of total operating costs over the audit period. In addition, vehicle maintenance cost per mile increased by over 96 percent, from \$0.58 per mile to \$1.13 per mile, as a result of rising maintenance

equipment and services costs. Mean distance between mechanical failures improved by three percent overall.

- The only year for which data was available for preventable accidents was FY2016, which was provided in response to the auditor’s request. No accident data was reported by the contractor in the monthly reports throughout the entire audit period, as required under the terms of the agreement with the City.

Recommendations

1. IMPROVE DATA COLLECTION AND REPORTING ACTIVITIES FOR QUALITY OF SERVICE STATISTICS FOR BOTH THE BUS AND PARATRANSIT SERVICES.

[Reference Section: VI. Functional Performance Indicator Trends]

There were numerous data gaps in quality of service statistics identified in the Functional Performance Indicator section of the audit for both Petaluma’s bus and paratransit services. As such, functional performance trend analysis could not be made in several performance measures (i.e., on-time performance, missed trips, ADA capacity indicators, and accident data). While Petaluma was able to provide some information for FY2016, this information was provided specifically for the performance audit and was not included in the contractor’s monthly reports, as required. The required data items that were not being reported for fixed-route include:

- Late and Missed Trips;
- Complaints; and
- Total and Preventable Accidents.

The required data items for paratransit service that were not reported by the contractor include:

- ADA Trip Denials (data reported in FY2016 only);
- Trip Cancellations;
- Late Trip Cancellations;
- No Shows; and
- Total and Preventable Accidents.

Collection and reporting of accurate, complete operating data is vital for a comprehensive analysis of performance for both bus and paratransit services. For the latter, these data are additionally important in demonstrating that the transit agency complies with the ADA regulations by ensuring no capacity constraints on complementary paratransit service. Petaluma should begin collecting quality of service data for both bus and paratransit services, and develop a comprehensive set of performance indicators to include with their existing performance monitoring system.

2. EVALUATE THE TRANSIT DEPARTMENT ORGANIZATION AND STAFFING TO DETERMINE HOW CONTRACT ADMINISTRATION RESPONSIBILITIES CAN BE CONDUCTED MORE EFFECTIVELY.

[Reference Section: VI. Functional Performance Indicator Trends]

While assessing the data collection and reporting activities for the quality of service statistics, it was noted that several data items were not being reported by the contractor throughout the audit period. These data are required to be included in the contractor's weekly and/or monthly reporting to the City, per the terms of the operating agreement. As such, it is apparent that the City of Petaluma has not

been performing its contract administration responsibilities adequately to ensure that the reporting was being performed as required. In discussions with Petaluma transit staff, the concern was raised whether there was sufficient staff to perform these duties (i.e., with one full-time, and two part-time employees). In order to address this concern, the City should evaluate the transit department organization and staffing to determine how contract administration responsibilities can be conducted more effectively to ensure that all contract terms and provisions, including required weekly and monthly reporting, are being met.

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**APPENDIX A:
INPUT STATISTICS FOR
FUNCTIONAL PERFORMANCE MEASURES**

Functional Performance Inputs – Petaluma Systemwide

Data Item	FY2014	FY2015	FY2016	Source
Total Operating Costs	\$2,226,363	\$2,250,414	\$2,413,564	NTD F-40
Administrative Costs	\$685,371	\$688,386	\$741,515	NTD F-40
Vehicle Service Hours	26,195	27,498	27,075	NTD S-10 (all modes)
Marketing Costs	\$60,000	\$52,113	\$44,544	Petaluma Staff
Unlinked Passenger Trips	384,931	400,406	373,291	NTD S-10 (all modes)
Farebox Revenue (All Modes)	\$272,671	\$282,977	\$280,655	NTD F-10

Functional Performance Inputs – Petaluma Bus Service

Data Item	FY2014	FY2015	FY2016	Source
Vehicle Service Miles	227,229	246,124	249,769	NTD S-10 MB
Total Vehicle Miles	231,306	254,192	258,732	NTD S-10 MB
Vehicle Service Hours	17,117	18,620	18,686	NTD S-10 MB
Total Vehicle Hours	18,081	19,431	19,628	NTD S-10 MB
Unlinked Passenger Trips	359,520	373,949	348,009	NTD S-10 MB
Farebox Revenue	\$218,933	\$224,011	\$218,121	NTD F-10
Total Operating Costs	\$1,358,402	\$1,369,079	\$1,601,738	NTD F-30 MB
Farebox Revenue (TDA Article 4 services only)	\$218,933	\$224,011	\$218,121	Petaluma Staff
Local Support - Auxiliary Transp. Rev. (Advertising)	\$17,217	\$19,866	\$22,608	Petaluma Staff
Local Support - Taxes Directly Levied (Measure M)	\$244,396	\$255,310	\$264,936	Petaluma Staff
Passenger Miles	762,182	792,774	737,779	NTD S-10 MB
Vehicle Operations Costs	\$830,088	\$781,421	\$892,235	NTD F-30 MB
Trips On-Time	(a)	(a)	67.0%	Petaluma Staff
Total Trips	(a)	(a)	(a)	
Complaints	(a)	(a)	(a)	
Missed Trips	(a)	(a)	(a)	
Vehicle Maintenance Costs	\$102,355	\$128,995	\$189,460	NTD F-30 MB
Non-Vehicle Maintenance Costs	\$47,130	\$66,747	\$79,435	NTD F-30 DR
Spare Vehicles (Total less Maximum Service)	5	3	2	NTD S-10 MB
Total Vehicles	13	11	11	NTD S-10 MB
Revenue Vehicle Mechanical System Failures - Total	4	7	10	NTD R-20 MB
Revenue Vehicle Mechanical System Failures - Major	4	2	10	NTD R-20 MB
Preventable Accidents	0	0	2	Petaluma Staff

(a) - Not available

Functional Performance Inputs – Petaluma Paratransit

Data Item	FY2014	FY2015	FY2016	Source
Vehicle Service Miles	80,797	85,251	82,607	NTD S-10 DR
Total Vehicle Miles	86,398	93,488	89,067	NTD S-10 DR
Vehicle Service Hours	9,078	8,878	8,389	NTD S-10 DR
Total Vehicle Hours	9,649	9,381	8,991	NTD S-10 DR
Unlinked Passenger Trips	25,411	26,457	25,282	NTD S-10 DR
Farebox Revenue	\$53,738	\$58,966	\$62,544	NTD F-10 DR
Total Operating Costs	\$867,961	\$881,335	\$811,826	NTD F-30 DR
Farebox Revenue (TDA Article 4 services only)	\$53,738	\$58,966	\$62,544	Petaluma Staff
Local Support	\$0	\$0	\$0	Petaluma Staff
Operating Cost Exclusions	\$0	\$0	\$0	Petaluma Staff
Passenger Miles	93,331	99,362	82,345	NTD S-10 DR
Vehicle Operations Costs	\$510,129	\$500,562	\$401,595	NTD F-30 DR ADA Paratransit
Trips On-Time	(a)	(a)	92.2%	Operational Summary ADA Paratransit
Complaints	(a)	(a)	19	Operational Summary
Missed Trips	0	0	0	Petaluma Staff
ADA Trip Denials	(b)	(b)	0	Petaluma Staff ADA Paratransit
Trip Cancellations	(a)	(a)	3,894	Operational Summary
Late Trip Cancellations	(a)	(a)	5.0%	Petaluma Staff ADA Paratransit
No Shows	(a)	(a)	36	Operational Summary
Vehicle Maintenance Costs	\$46,638	\$75,286	\$93,615	NTD F-30 DR
Non-Vehicle Maintenance Costs	\$4,652	\$8,990	\$15,709	NTD F-30 DR
Spare Vehicles (Total less Maximum Service)	1	1	0	NTD S-10 DR
Total Vehicles	7	7	7	NTD S-10 DR
Revenue Vehicle Mechanical System Failures - Total	1	0	1	NTD R-20 DR
Revenue Vehicle Mechanical System Failures - Major	1	0	1	NTD R-20 DR ADA Paratransit
Preventable Accidents	(a)	(a)	0	Operational Summary

(a) - Not reported

(b) - Not available