

Triennial Performance Audit

of the

City of Vacaville Transit Services

Fiscal Years 2014/15, 2015/16 and 2016/17

FINAL AUDIT REPORT

prepared for the



**METROPOLITAN
TRANSPORTATION
COMMISSION**

by



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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 Vacaville's Transit Services. 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 Vacaville, bus and paratransit, are the focus of this performance audit. The audit period is Fiscal Years 2015 through 2017 (from July 1, 2014 through June 30, 2017).

Performance Audit and Report Organization

The performance audit was conducted for MTC in accordance with its established procedures for performance audits. The final 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 Vacaville'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 Vacaville's performance based on the results of the previous sections.

Comments received from Vacaville and MTC staff regarding the draft report have been incorporated into the 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 Vacaville 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 Vacaville 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 appear to be consistent with the TDA definitions, and indicate general consistency in terms of the direction and magnitude of the year-to-year changes across the statistics.

Performance Indicators and Trends – Vacaville’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 FY2012 through FY2017:
 - There was an average annual decrease in the operating cost per hour of 0.4 percent, which amounted to a 2.9 percent decrease in inflation adjusted dollars.
 - The cost per passenger increased on average by 2.1 percent per year, which amounted to an average annual decrease of 0.5 percent in constant FY2012 dollars.
 - Passenger productivity showed somewhat mixed trends, with passengers per vehicle service hour decreasing by 2.4 percent per

year overall, and passengers per vehicle service mile increasing by 0.2 percent annually.

- Employee productivity increased an average 0.7 percent per year.

The following is a brief summary of the component operating costs trend highlights for the bus service between FY2012 and FY2017:

- While contributing relatively small portions to total operating costs, in-house labor costs decreased by 8.6 percent annually on average, while fringe benefit costs increased by 13.3 percent annually.
- Purchased transportation costs increased by 11.5 percent with a new operations contract in FY2017, and comprised over 60 percent of the total operating costs in all six years.
- Casualty/liability costs increased by about seven percent on average per year, with the largest increases in the last two years but decreases in certain years as well.
- Other component cost categories averaged only minor changes and contributed relatively small shares toward total operating costs over the six years.

Paratransit – The following is a brief summary of the TDA performance trend highlights over the six-year period of FY2012 through FY2017:

- For cost efficiency, there was an average annual decrease in the operating cost per hour of 1.6 percent, which amounted to an annual decrease of 4.2 percent in inflation adjusted dollars. A reduction in operating costs in FY2017 positively affected the cost per hour trend.
- The operating cost per passenger achieved an average annual decrease of 3.2 percent, when normalized in FY2012 dollars. The reduction in operating costs in FY2017 also positively affected this indicator.

- Passenger productivity showed somewhat negative results, with passengers per hour decreasing by 1.0 percent per year on average, and passengers per mile decreasing by 3.5 percent annually.
- The net result for employee productivity was an average annual decrease of two percent.

The following is a brief summary of the component operating costs trend highlights for paratransit between FY2012 and FY2017:

- While contributing relatively small portions to total operating costs, in-house labor and fringe benefits costs both decreased, but the former more substantially.
- Purchased transportation costs fluctuated in certain years but remained relatively steady on average. They comprised between 53 and 69 percent of the total operating costs, with the lowest results in the middle years.
- Casualty/liability costs increased by about four percent on average per year, with a 30 percent increase in FY2016 but decreases in certain years as well.
- Other component cost categories each contributed shares of less than 15 percent of total operating costs over the six years.

PUC Compliance – Vacaville 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.

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

Functional Performance Indicator Trends - To further assess Vacaville'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 FY2015 and FY2017:
 - Administrative costs decreased moderately to 24 percent of total operating costs in FY2016 and FY2017, and at the same time decreased by 12.5 percent to about \$12.50 per vehicle service hour.
 - Marketing costs were relatively steady compared to total administrative costs, while decreasing slightly to \$0.05 per passenger trip in the last two years.
 - The systemwide farebox recovery ratio declined from over 20 percent to 17.1 percent by FY2017.

- Bus Service – The following is a brief summary of the bus service functional trend highlights between FY2015 and FY2017:
 - Service Planning results showed the farebox recovery decreasing from 21.7 to 17.9 percent, and the TDA recovery ratio (reflecting local support and operating cost exclusions) decreasing to 18.3 percent. Consistently 97 percent or more vehicle miles and hours were in service, but passenger productivity fell by more than 12 percent with the notable ridership loss in FY2017.
 - Operations results showed vehicle operations costs per service hour increasing by ten percent in FY2017, and increasing from 62 to 66 percent of total costs as well. There was some reduction in schedule adherence to 90 percent, an overall decrease in complaints received, and virtually no missed trips.
 - Maintenance results showed maintenance costs between and 11 and 14 percent of total costs, vehicle maintenance costs per service mile below \$0.40 in the first and last years, a steady 22.2 percent vehicle

spare ratio, but overall deterioration of the road call rate with some rebounding in FY2017.

- Safety results showed the rate of preventable accidents in the last two years almost double that of FY2015.
- Paratransit – The following is a brief summary of the paratransit (Special Services) functional trend highlights between FY2015 and FY2017:
 - Service Planning results showed the farebox recovery ratio increasing from 7.7 to more than eight percent, and the TDA recovery ratio (reflecting local support and operating cost exclusions) remaining over eight percent. Consistently about 90 percent vehicle miles and hours were in service, and passenger productivity was relatively steady.
 - Operations results showed a modest decrease in vehicle operations costs per hour, with relatively steady levels when compared to total costs. Schedule adherence remained at about 95 percent. There was a significant increase in the rate of complaints, but very few complaints in absolute numbers. There were no missed trips and very low rates of cancellations, late cancellations and passenger no-shows. Two or three ADA trip denials were reported in each year.
 - Maintenance results showed total maintenance costs increasing overall from nine to 11 percent of total costs, while vehicle maintenance costs per service mile increased overall from \$0.57 to \$0.62. The spare ratio was at 50 percent or higher in all years, while the road call rate worsened generally but improved significantly in FY2017 compared to the previous year.
 - Safety results showed the preventable accident rate improved steadily and significantly.

Recommendations

1. TAKE STEPS TO REDUCE PREVENTABLE ACCIDENTS ON VACAVILLE'S BUS SERVICE.

[Reference Section: VI. Functional Performance Indicator Trends]

The rate of preventable accidents on the bus system increased noticeably through the audit period. It nearly doubled between FY2015 and FY2016, and remained at the higher level in FY2017. These results reflect three preventable accidents in FY2015 and six in each following year. Although the number of accidents is not inordinately high, the recent increases point to a potentially burgeoning safety issue which Vacaville should address in coordination with its operating contractor. Efforts should include additional strategies to improve operator training and enhance monitoring activities to ensure that safety issues are identified and corrected before they have a chance to escalate further.

2. ELIMINATE ALL ADA TRIP DENIALS ON THE SPECIAL SERVICES.

[Reference Section: VI. Functional Performance Indicator Trends]

There were a small number of ADA trip denials reported during the audit period on Vacaville's Special Services -- two or three in each year. While there does not appear to be any operational pattern or practice that significantly limits the availability of service to ADA paratransit eligible persons (as defined in the Code of Federal Regulations – 49 CFR 37.131), Vacaville should nonetheless strive to eliminate all ADA service denials.

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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 Vacaville Transit Services. The two modes operated by Vacaville, bus and paratransit, are the focus of this performance audit. The audit period is Fiscal Years 2015 through 2017 (from July 1, 2014 through June 30, 2017).

An overview of Vacaville is provided in Exhibit 1. This is followed by an audit period organization chart in Exhibit 2.1, and a current organization chart in Exhibit 2.2. The latter reflects a restructuring of the City's Public Works Department, with Transit

moved from the General Services Division to the Maintenance Division, and the Transit Program Coordinator assuming direct responsibility for all transit-related functions.

Performance Audit and Report Organization

This performance audit of Vacaville was conducted for MTC in accordance with its established procedures for performance audits. The audit consisted of two discrete steps:

1. Compliance Audit - Activities in this phase included:
 - 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 included:
 - A review of actions to implement the recommendations from the prior performance audit;
 - Calculation and evaluation of functional performance indicator trends; and
 - Findings, conclusions, and the formulation of recommendations.

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

Exhibit 1: System Overview

Location	Headquarters: 650 Merchant Street, Vacaville, CA 95688
Establishment	The City of Vacaville began providing transit services in July 1981, with the establishment of Vacaville City Coach, which operated deviated fixed-route service. In October 1989, a fixed-route system was developed, initially operating on two routes and later expanding.
Board	The City of Vacaville's transit program is governed by the City Council, which provides all policy direction. The General Services Division of the Public Works Department administers the program. The General Services Division Manager is responsible for the daily operations of the system and reports to the Director for Public Works.
Facilities	<p>The City Coach maintenance, operations, vehicle storage and administrative functions are located at the Transit facilities, in the City's Corporation Yard on Allison Drive in Vacaville. This location houses both agency staff and contractor employees. City Coach also utilizes two Park and Ride facilities within Vacaville, each containing over one hundred parking spaces and bicycle racks or lockers.</p> <p>The City also operates two transit transfer centers. The first is located in downtown Vacaville, and named the Downtown Transit Plaza. The second is a regional transfer facility located on Allison Drive, named the Vacaville Transportation Center (VTC). The VTC is also a park and ride lot with 220 surface level parking stalls.</p>
Service Data	<p>The City of Vacaville provides a fixed-route service (City Coach), a local ADA paratransit service (Special Services), and a subsidized local taxi program for eligible residents. Both City Coach and Special Services are operated under contract by First Transit, Inc.</p> <p>City Coach operates six routes. Current service hours run from 6:00 a.m. to 6:30 p.m. weekdays and from 8:00 a.m. to 6:00 p.m. Saturdays. Local fares are \$1.50 for adults, \$1.25 for youth, and \$0.75 for seniors, passengers with disabilities, and Medicare cardholders. Up to two children under the age of five ride free with a paying adult. Discounted day passes, monthly passes and 20- and 30-ride punch passes also are available. This fare structure has been in effect since July 2005.</p> <p>Vacaville provides paratransit service through a dial-a-ride program called Special Services, and a subsidized local taxi program. Special Services is a door-to-door service available to Americans with Disabilities Act (ADA) certified disabled persons that operates during the same days and hours as the fixed-route service. The one-way fare is \$2.00. For the local taxi service, the City contracts with AA Cab, Yellow Cab and Vacaville Checker Cab, and subsidizes 50 percent of the trip cost. The local taxi scrip program is part of the City's overall Dial-A-Ride (DAR) program.</p>

The City also contributes financially to regional bus services operated by Fairfield and Suisun Transit (FAST), and SolTrans. There are three bus routes connecting Vacaville, Fairfield, Benicia, Pleasant Hill, Yolo County and the Walnut Creek BART station. The City is part of an Intercity Transit Funding Agreement between the four other county transit operators, coordinated by the Solano Transportation Authority in a coordinated cost sharing program to support the transit services between those communities.

Recent Changes In July 2017 the City hired a new Management Analyst II, performing the duties of the Transit Coordinator for Vacaville City Coach Transit.

Planned Changes City Coach is at the end of the process of performing the latest System Evaluation Project, a year-long comprehensive system-wide ridership and route analysis. LSC Transit Consultants was hired to aid on this project, which is intended to “right-size” the system. On May 8, 2018, the City Council approved the proposed route and operating frequency changes ensuing from this study, for implementation effective August 1, 2018.

Staff Within the Public Works Maintenance Division, a total of 1.5 FTEs are dedicated to the City Coach Transit program.

Exhibit 2.1: Organization Chart – October 2014

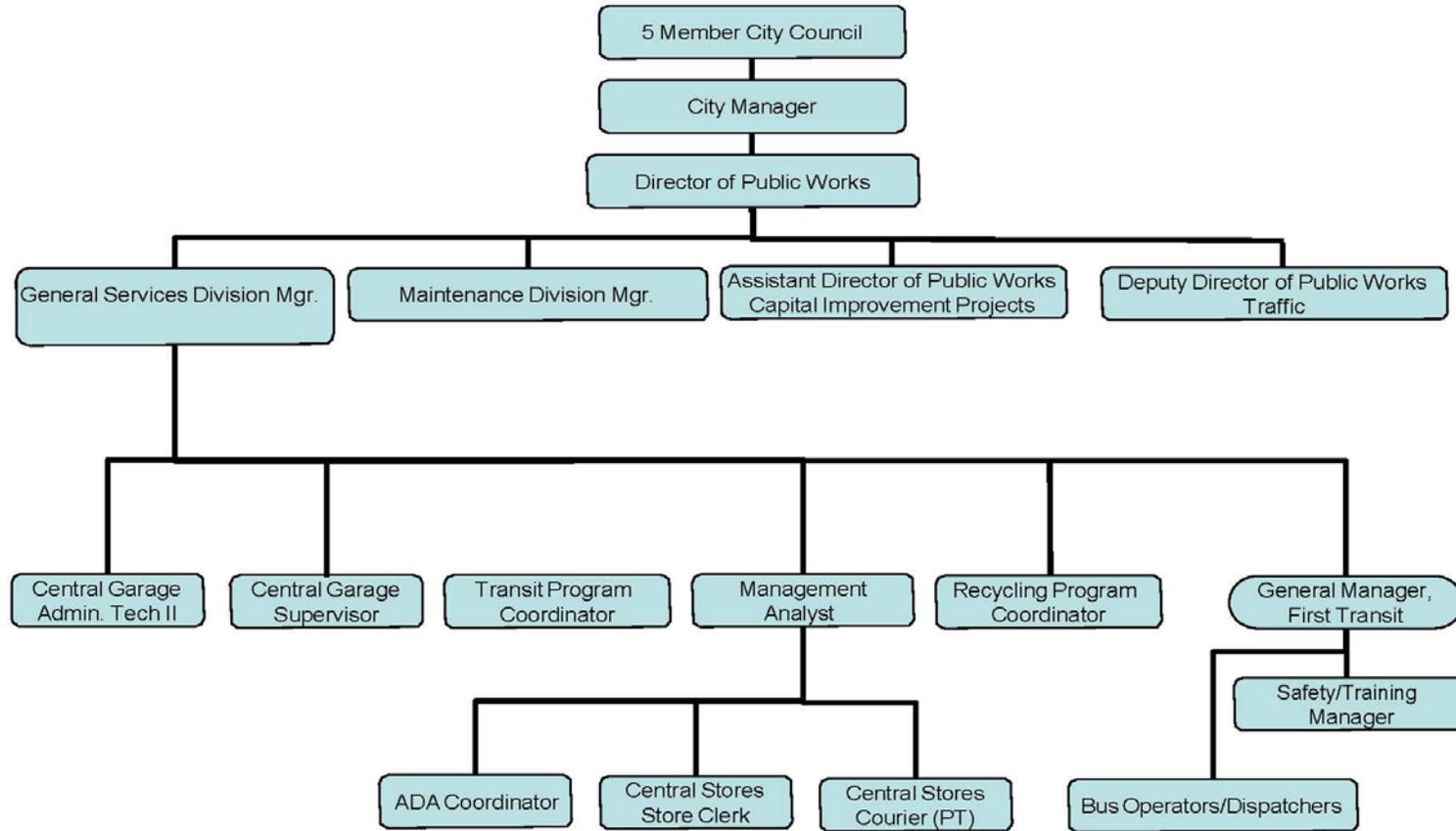
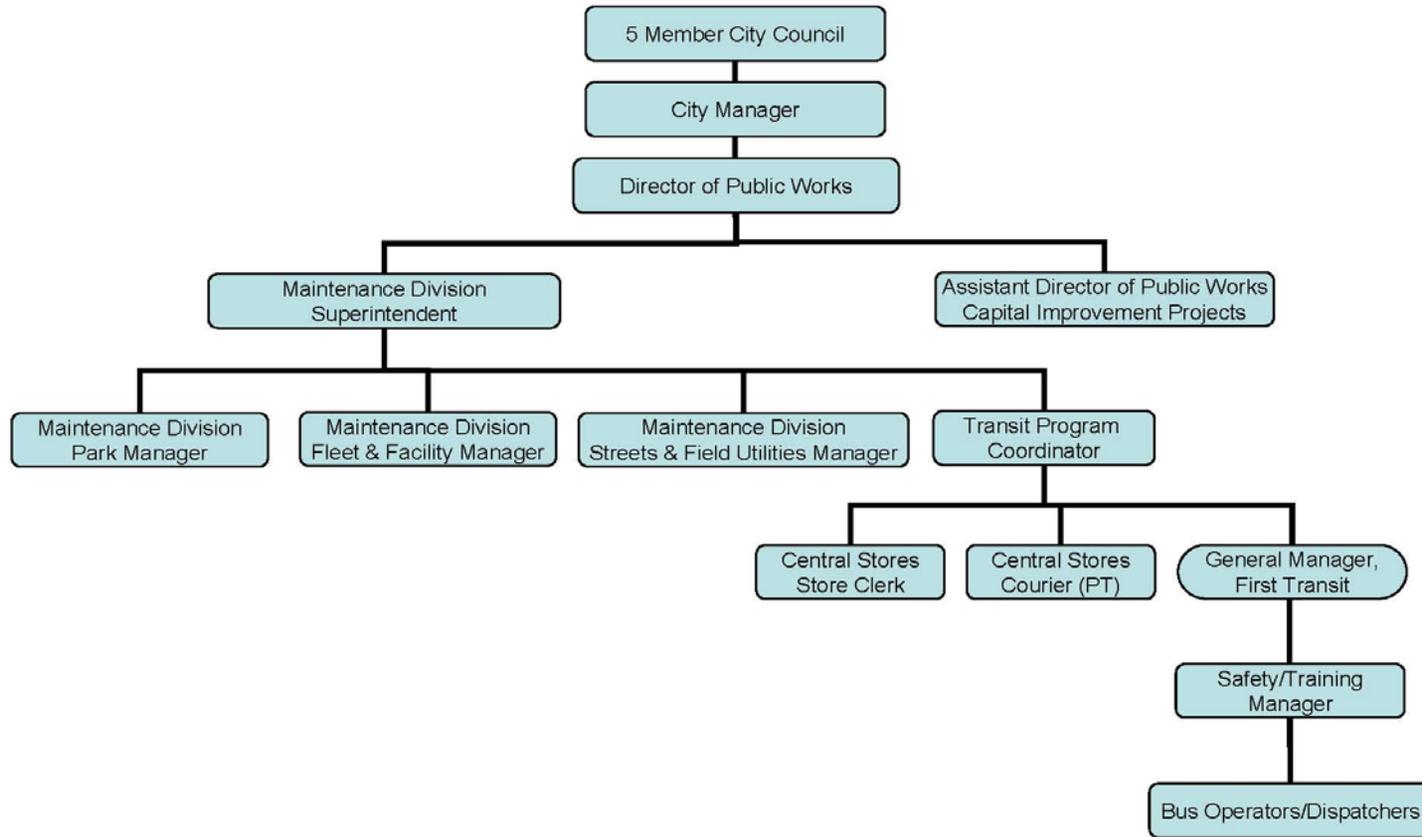


Exhibit 2.2: Organization Chart – October 2017



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 Vacaville is in 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 typically relies on the operating and financial statistics in the National Transit Database (NTD) reports submitted annually to the Federal Transit Administration (FTA). Vacaville has obtained an NTD reporting waiver for the audit period, as it operates fewer than 30 vehicles in transit service, and thus is not required to file a complete annual NTD report. Instead, information from the City's TDA claims, reports to the State Controller, performance monitoring reports and definitions provided by City staff were used to analyze TDA data collection and reporting.

Compliance with Requirements

To support this review, Vacaville staff confirmed that the data collection and reporting procedures remain unchanged from those described in the prior performance audit. The staff indicated that the definitions and procedures used to derive the TDA

indicator statistics generally are consistent with those used for the NTD reporting system. Based on the information provided, as shown in Exhibit 3.1, Vacaville 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 Vacaville's bus and paratransit services are shown in Exhibits 3.2 and 3.3, respectively. 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 collected over the period appear to be consistent with the TDA definitions. Further, they 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 tend to be relatively proportional to increases or decreases in annual vehicle service hours and miles.

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"> • Reported according to TDA definition and City Audit Reports (generally corresponds to NTD line items). • Costs allocated between fixed-route and paratransit based on service usage. • City staff time and administrative costs allocated on a 70/30 percent split between fixed route and paratransit. Cost allocation follows Federal guidelines (approved by HUD).
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: calculated based on current schedule, consistent with the TDA definition. • Paratransit: calculated from first passenger pick-up to last passenger drop-off. Data source - driver manifests. • Data entered from driver manifests into Transit Contract Operator Monthly Reports (fixed-route and paratransit). MTC Quarterly Report Worksheets track performance for inclusion in MTC Quarterly Reports.

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: calculated based on current schedule, consistent with the TDA definition. Paratransit: calculated from first passenger pick-up to last passenger drop-off. Data source - driver manifests. Data entered from driver manifests into Transit Contract Operator Monthly Reports and MTC Quarterly Report Worksheets as above.
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: drivers count passengers on each run using counters that track different fare categories. Drivers record passenger counts at end of each run, then reset the counter. Passenger counts included in Transit Contract Operator Monthly Reports and MTC Quarterly Reports. Paratransit: passenger counts on driver manifests entered into a spreadsheet, incorporated in Transit Contract Operator Monthly Reports.
Employee Full-Time Equivalents	2,000 person-hours of work in one year constitute one employee.	In Compliance	<ul style="list-style-type: none"> Contractor provides annual employee hours for both fixed-route and paratransit. City administrative staff hours added to contractors figures, based on 70/30 split between fixed-route and paratransit. FTEs calculated on spreadsheet. Calculation is consistent with TDA definition.

Exhibit 3.2: TDA Statistics – Bus Service

TDA Statistic	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017
Operating Cost (Actual \$)	\$1,693,024	\$1,725,334	\$1,791,406	\$1,739,936	\$1,744,591	\$1,825,691
<i>Annual Change</i>	- -	1.9%	3.8%	-2.9%	0.3%	4.6%
Vehicle Service Hours	33,767	39,222	36,549	36,719	36,864	37,059
<i>Annual Change</i>	- -	16.2%	-6.8%	0.5%	0.4%	0.5%
Vehicle Service Miles	525,949	513,756	517,361	505,092	502,827	504,444
<i>Annual Change</i>	- -	-2.3%	0.7%	-2.4%	-0.4%	0.3%
Unlinked Passengers	446,050	489,375	511,194	485,578	492,754	432,670
<i>Annual Change</i>	- -	9.7%	4.5%	-5.0%	1.5%	-12.2%
Employee Full-Time Equivalents	22.9	22.6	23.3	24.0	23.9	24.4
<i>Annual Change</i>	- -	-1.6%	3.2%	2.8%	-0.2%	1.9%

Sources: FY2012 through FY2013 - Prior Performance Audit Report

FY2014 - FTEs: Prior Performance Audit Report; Other Statistics: FY2016 TDA Claim ("Past Actual")

FY2015 through FY2017 - Op. Cost: TDA Claims (FY2017 "Current Adjusted"); FTEs: City Staff; Other Statistics: Performance Reports/Summary

Exhibit 3.3: TDA Statistics – Paratransit

TDA Statistic	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017
Operating Cost (Actual \$)	\$554,536	\$519,425	\$398,277	\$422,077	\$541,567	\$490,811
<i>Annual Change</i>	- -	-6.3%	-23.3%	6.0%	28.3%	-9.4%
Vehicle Service Hours	7,997	7,269	7,479	7,521	7,451	7,690
<i>Annual Change</i>	- -	-9.1%	2.9%	0.6%	-0.9%	3.2%
Vehicle Service Miles	89,376	84,373	86,526	94,230	94,412	97,912
<i>Annual Change</i>	- -	-5.6%	2.6%	8.9%	0.2%	3.7%
Unlinked Passengers	27,927	26,933	24,562	26,354	26,240	25,552
<i>Annual Change</i>	- -	-3.6%	-8.8%	7.3%	-0.4%	-2.6%
Employee Full-Time Equivalents	9.8	9.9	10.0	10.3	10.5	10.4
<i>Annual Change</i>	- -	1.0%	0.6%	2.8%	2.3%	-0.5%

Sources: FY2012 through FY2017 - Financial Transaction Reports to the California State Controller (Vacaville - Specialized Services), except:
 FY2012 Hours & Passengers, FY2017 Miles & Passengers - Annual Quarterly Performance Report Summaries
 FY2012 through FY2014 FTEs - Prior Performance Audit Report
 FY2015 through FY2017 FTEs - City Staff

Note: Includes City Coach Special Services and Local Taxi Scrip Program

III. TDA PERFORMANCE INDICATORS AND TRENDS

The performance trends for Vacaville'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)

Vacaville's MTC TDA claim applications, reports to the State Controller, and internal performance reports/summaries were the source of all operating and financial statistics except for FTEs. Employee FTE data was provided by City of Vacaville staff.

In addition to presenting performance for the three years of the audit period (FY2015 through FY2017), 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 Vacaville'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 FY2015 to FY2017 trend lines have been combined with those from the prior audit period (FY2012 through FY2014) 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 Vacaville’s performance trends in each of the five TDA performance indicators. The discussion is organized by service mode -- bus service is discussed first, followed by paratransit. The analysis is also expanded to include a breakdown of the various component costs that contributed to the total and hourly operating costs during the last six years.

Bus Service Performance Trends

This section provides an overview of the performance of Vacaville’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 4.4.

- 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 was highest in the first year (FY2012) at \$50.14, and lowest in the following year at \$43.99. Subsequently, it ranged between \$47 and \$49 per hour.
 - In constant FY2012 dollars, there was an average annual decrease in this indicator of 2.9 percent.

- Passengers per Vehicle Service Hour (Exhibit 4.2)
 - A key indicator of passenger productivity, passengers per hour decreased an average of 2.4 percent annually during the six-year period.
 - The increase reflects a minimal overall decrease in passengers combined with a slightly larger increase in service hours.
 - Passengers per hour decreased overall from 13.2 in FY2012 to 11.7 in FY2017. The latter result was driven by a 12.2 percent reduction in passengers in FY2017 compared with the previous year. This reduction appears generally in line with the recent experience of transit operators across the country. Contributing factors include lower fuel costs, easier auto loan terms, and especially the proliferation of competition from Transportation Network Companies (TNCs) such as Uber and Lyft. Additionally in California, a wider range of residents can now obtain drivers licenses with little difficulty.

- Passengers per Vehicle Service Mile (Exhibit 4.2)
 - Passengers per mile increased overall, but only by 0.2 percent annually on average.
 - There were about 0.85 passengers per mile in both the first and last years of the review period, but closer to one full passenger per mile in each of the interim years.
 - The largest annual change was a 12.5 percent decrease in FY2017, when passenger levels dropped by more than 12 percent while service miles remained almost steady.

- Operating Cost per Passenger (Exhibit 4.3)
 - A key measure of cost effectiveness, the cost per passenger was \$3.80 in the first year of the review period followed by a decrease in the next year to \$3.53.
 - The cost per passenger then remained at about \$3.50 through FY2016, but increased to \$4.22 in FY2017, primarily reflecting the large decrease in passengers carried in that year.

- Overall during the six years, the cost per passenger increased on average by 2.1 percent annually.
- With the impact of inflation removed from the cost side (normalization), the six-year result was an average annual decrease of 0.5 percent in the cost per passenger.
- Vehicle Service Hours per Employee (FTE) (Exhibit 4.4)
 - A measure of employee productivity (primarily based on contractor work hours), this indicator increased by an average 0.7 percent per year over the six years.
 - Hours per FTE increased overall from just below 1,500 in the first review year to just above 1,500 in the last year, with somewhat higher results obtained in the interim years.
 - Annual FTEs increased at a slightly lower rate than vehicle service hours overall during the period.

* * * * *

The following is a brief summary of the bus service TDA performance trend highlights over the six-year period of FY2012 through FY2017:

- There was an average annual decrease in the operating cost per hour of 0.4 percent, which amounted to a 2.9 percent decrease in inflation adjusted dollars.
- The cost per passenger increased on average by 2.1 percent per year, which amounted to an average annual decrease of 0.5 percent in constant FY2012 dollars.
- Passenger productivity showed somewhat mixed trends, with passengers per vehicle service hour decreasing by 2.4 percent per year overall, and passengers per vehicle service mile increasing by 0.2 percent annually.
- Employee productivity increased an average 0.7 percent per year.

Exhibit 4: TDA Indicator Performance - Bus Service

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	Av. Ann. Chg.
Performance Indicators							
Op. Cost per Vehicle Svc. Hour (Actual \$)	\$50.14	\$43.99	\$49.01	\$47.39	\$47.33	\$49.26	- -
<i>Annual Change</i>	- -	-12.3%	11.4%	-3.3%	-0.1%	4.1%	-0.4%
Op. Cost per Vehicle Svc. Hour (Constant \$)	\$50.14	\$42.87	\$46.41	\$44.08	\$42.94	\$43.29	- -
<i>Annual Change</i>	- -	-14.5%	8.3%	-5.0%	-2.6%	0.8%	-2.9%
Passengers per Vehicle Service Hour	13.2	12.5	14.0	13.2	13.4	11.7	- -
<i>Annual Change</i>	- -	-5.5%	12.1%	-5.5%	1.1%	-12.7%	-2.4%
Passengers per Vehicle Service Mile	0.85	0.95	0.99	0.96	0.98	0.86	- -
<i>Annual Change</i>	- -	12.3%	3.7%	-2.7%	1.9%	-12.5%	0.2%
Op. Cost per Passenger (Actual \$)	\$3.80	\$3.53	\$3.50	\$3.58	\$3.54	\$4.22	- -
<i>Annual Change</i>	- -	-7.1%	-0.6%	2.3%	-1.2%	19.2%	2.1%
Op. Cost per Passenger (Constant \$)	\$3.80	\$3.44	\$3.32	\$3.33	\$3.21	\$3.71	- -
<i>Annual Change</i>	- -	-9.5%	-3.4%	0.4%	-3.6%	15.4%	-0.5%
Vehicle Service Hours per FTE	1,472	1,737	1,568	1,533	1,542	1,521	- -
<i>Annual Change</i>	- -	18.0%	-9.7%	-2.2%	0.6%	-1.4%	0.7%
Input Data							
Operating Cost (Actual \$)	\$1,693,024	\$1,725,334	\$1,791,406	\$1,739,936	\$1,744,591	\$1,825,691	- -
<i>Annual Change</i>	- -	1.9%	3.8%	-2.9%	0.3%	4.6%	1.5%
Operating Cost (Constant \$)	\$1,693,024	\$1,681,612	\$1,696,407	\$1,618,545	\$1,583,113	\$1,604,298	- -
<i>Annual Change</i>	- -	-0.7%	0.9%	-4.6%	-2.2%	1.3%	-1.1%
Vehicle Service Hours	33,767	39,222	36,549	36,719	36,864	37,059	- -
<i>Annual Change</i>	- -	16.2%	-6.8%	0.5%	0.4%	0.5%	1.9%
Vehicle Service Miles	525,949	513,756	517,361	505,092	502,827	504,444	- -
<i>Annual Change</i>	- -	-2.3%	0.7%	-2.4%	-0.4%	0.3%	-0.8%
Unlinked Passengers	446,050	489,375	511,194	485,578	492,754	432,670	- -
<i>Annual Change</i>	- -	9.7%	4.5%	-5.0%	1.5%	-12.2%	-0.6%
Employee Full-Time Equivalents	22.9	22.6	23.3	24.0	23.9	24.4	- -
<i>Annual Change</i>	- -	-1.6%	3.2%	2.8%	-0.2%	1.9%	1.2%
Bay Area CPI - Annual Change	- -	2.6%	2.9%	1.9%	2.5%	3.3%	- -
- Cumulative Change	- -	2.6%	5.6%	7.5%	10.2%	13.8%	2.6%

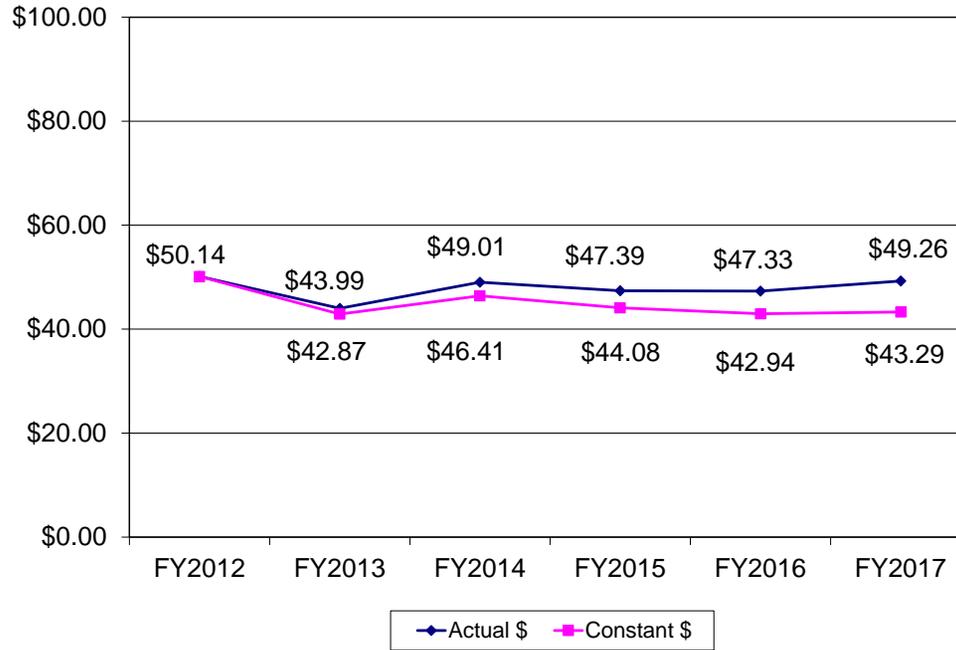
Sources: FY2012 through FY2013 - Prior Performance Audit Report

FY2014 - FTEs: Prior Performance Audit Report; Other Statistics: FY2016 TDA Claim ("Past Actual")

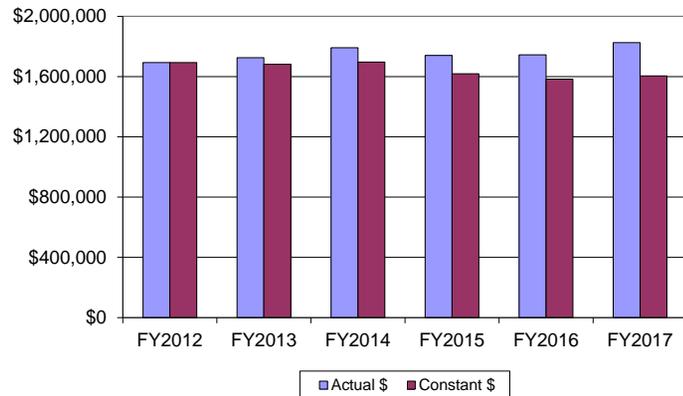
FY2015 through FY2017 - Op. Cost: TDA Claims (FY2017 "Current Adjusted"); FTEs: City Staff; Other Statistics: Performance Reports/Summary

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

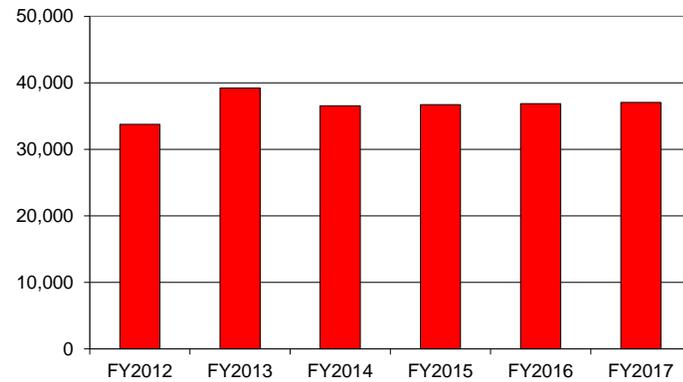
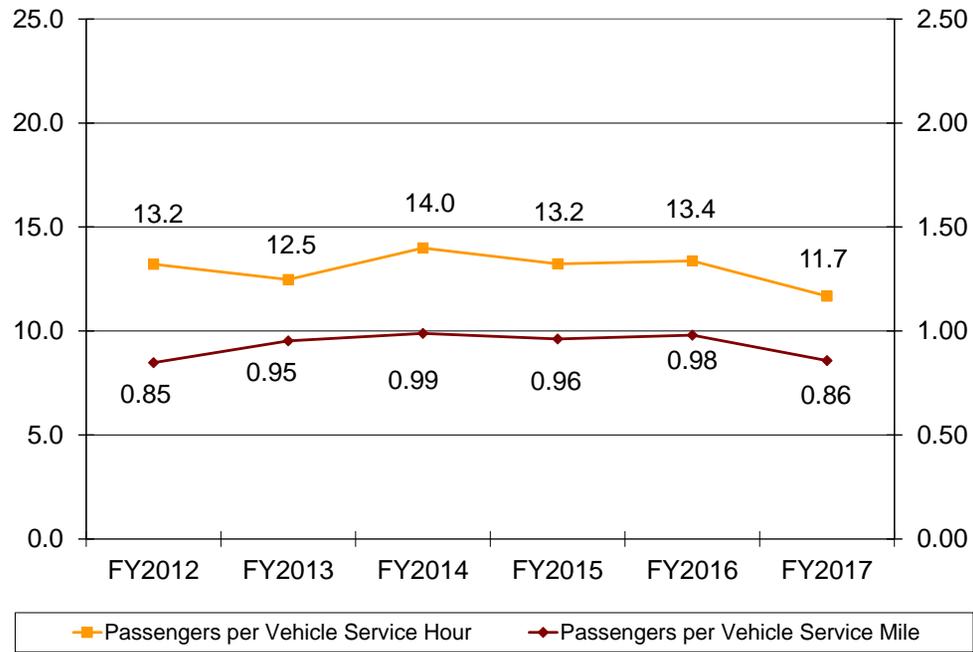
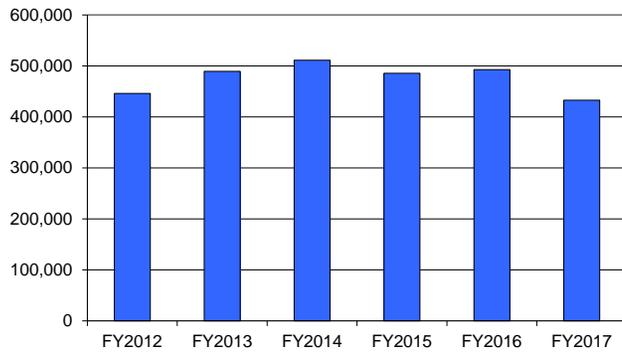


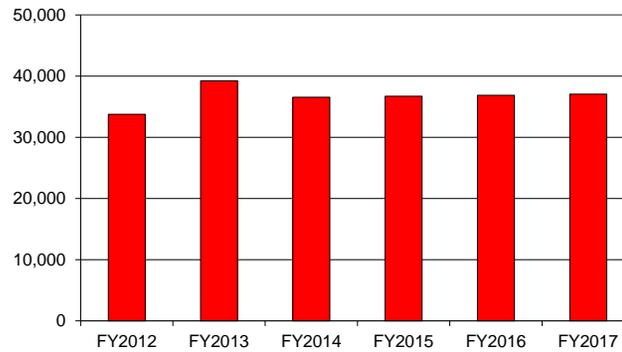
Exhibit 4.2: Passengers per Hour and per Mile – Bus Service



Unlinked Passengers



Vehicle Service Hours



Vehicle Service Miles

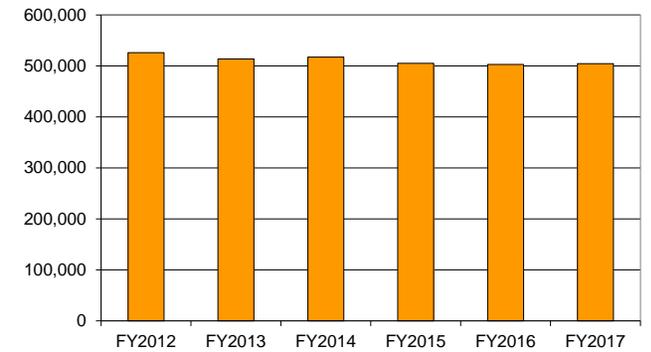
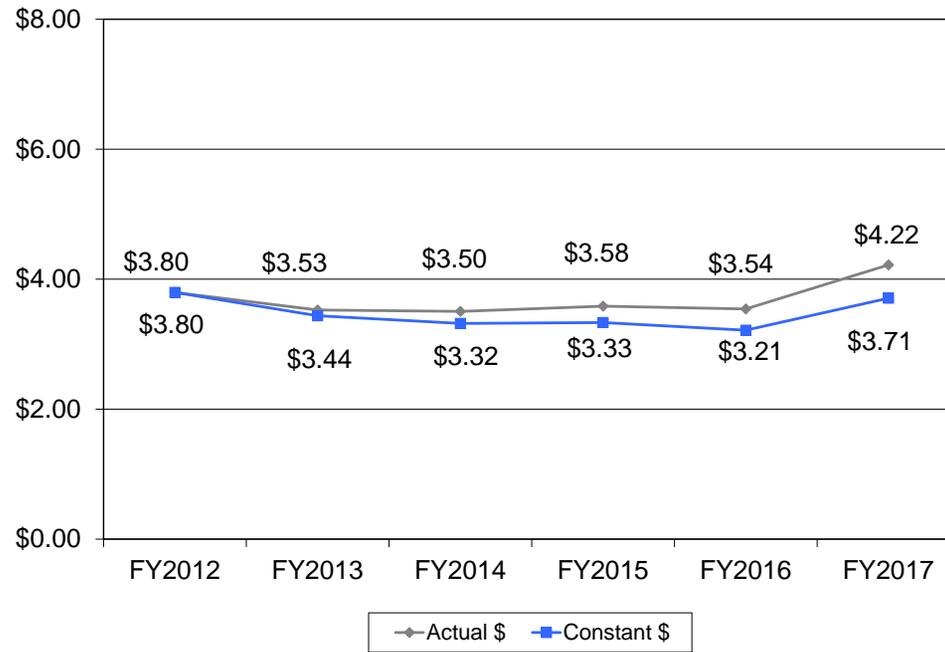
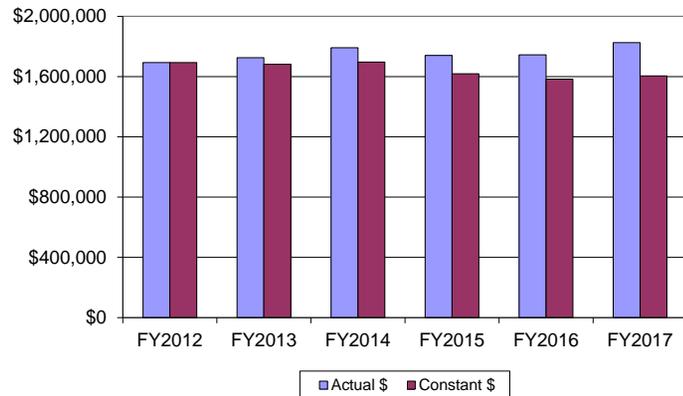


Exhibit 4.3: Operating Cost per Passenger – Bus Service



Operating Cost



Unlinked Passengers

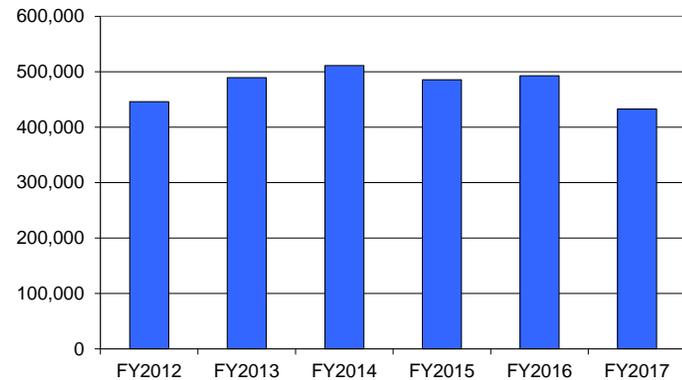
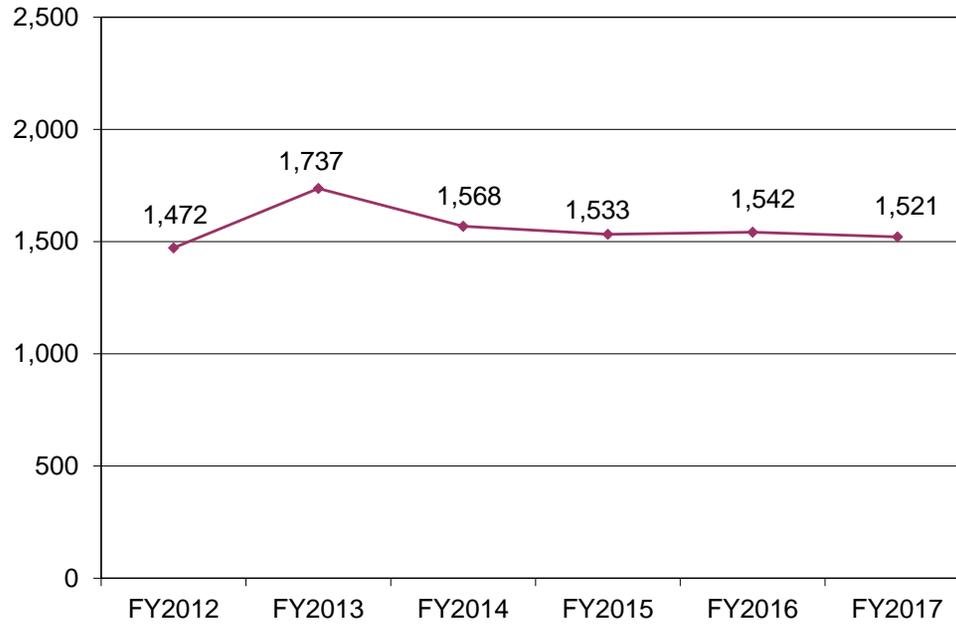
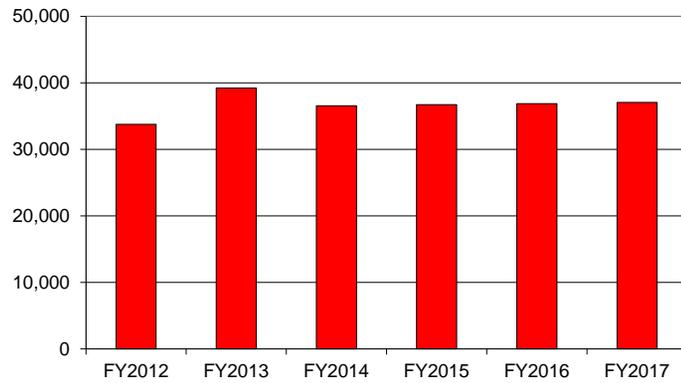


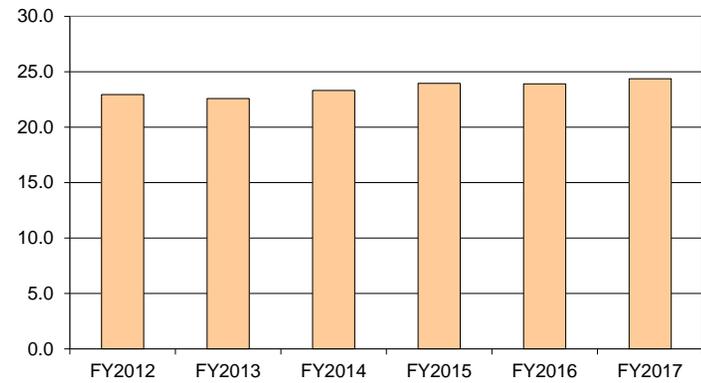
Exhibit 4.4: Vehicle Service Hours per FTE – Bus Service



Vehicle Service Hours



Full-time Equivalents



Bus Service Component Costs

Year-to-year changes in selected operating cost categories over the past six years are presented in Exhibit 4.5. 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 4.5 also shows the concurrent changes in vehicle service hours, and Exhibit 4.6 illustrates the portion of the cost per bus service hour that can be attributed to each included cost component.

- While not major components of total costs, in-house labor costs decreased by 33 percent in FY2017, while fringe benefits costs decreased by just 4.1 percent.
- On average over the six years, labor costs decreased by 8.6 percent annually while fringe benefit costs actually increased by 13.3 percent (principally associated with CalPERS/OPEB-related payments).
- There was an 11.5 percent increase in purchased transportation costs in FY2017, following the new operations contract with First Transit that took effect on August 1, 2016.
- Casualty/liability costs increased by about seven percent on average per year, with the most significant increases in the last two years (28 and 18 percent, respectively). There were also decreases in certain years, which appears in line with the relative unpredictability of settlement activity. Further, these costs remained near five percent of the total through the review period.
- Purchased transportation costs comprised over 60 percent of the total operating costs throughout the review period, and reached 66 percent in FY2017.
- Services/utilities represented the next largest portion of the total cost per vehicle service hour in all years, ranging between 11 and 17 percent. This was followed by materials/supplies, which remained in a range of eight to ten percent of the total.

- The remaining component cost categories each averaged only very minor changes per year and contributed shares of less than eight percent in all years.

* * * * *

The following is a brief summary of the bus service component operating costs trend highlights between FY2012 and FY2017:

- While contributing relatively small portions to total operating costs, in-house labor costs decreased by 8.6 percent annually on average, while fringe benefit costs increased by 13.3 percent annually.
- Purchased transportation costs increased by 11.5 percent with a new operations contract in FY2017, and comprised over 60 percent of the total operating costs in all six years.
- Casualty/liability costs increased by about seven percent on average per year, with the largest increases in the last two years but decreases in certain years as well.
- Other component cost categories averaged only minor changes and contributed relatively small shares toward total operating costs over the six years.

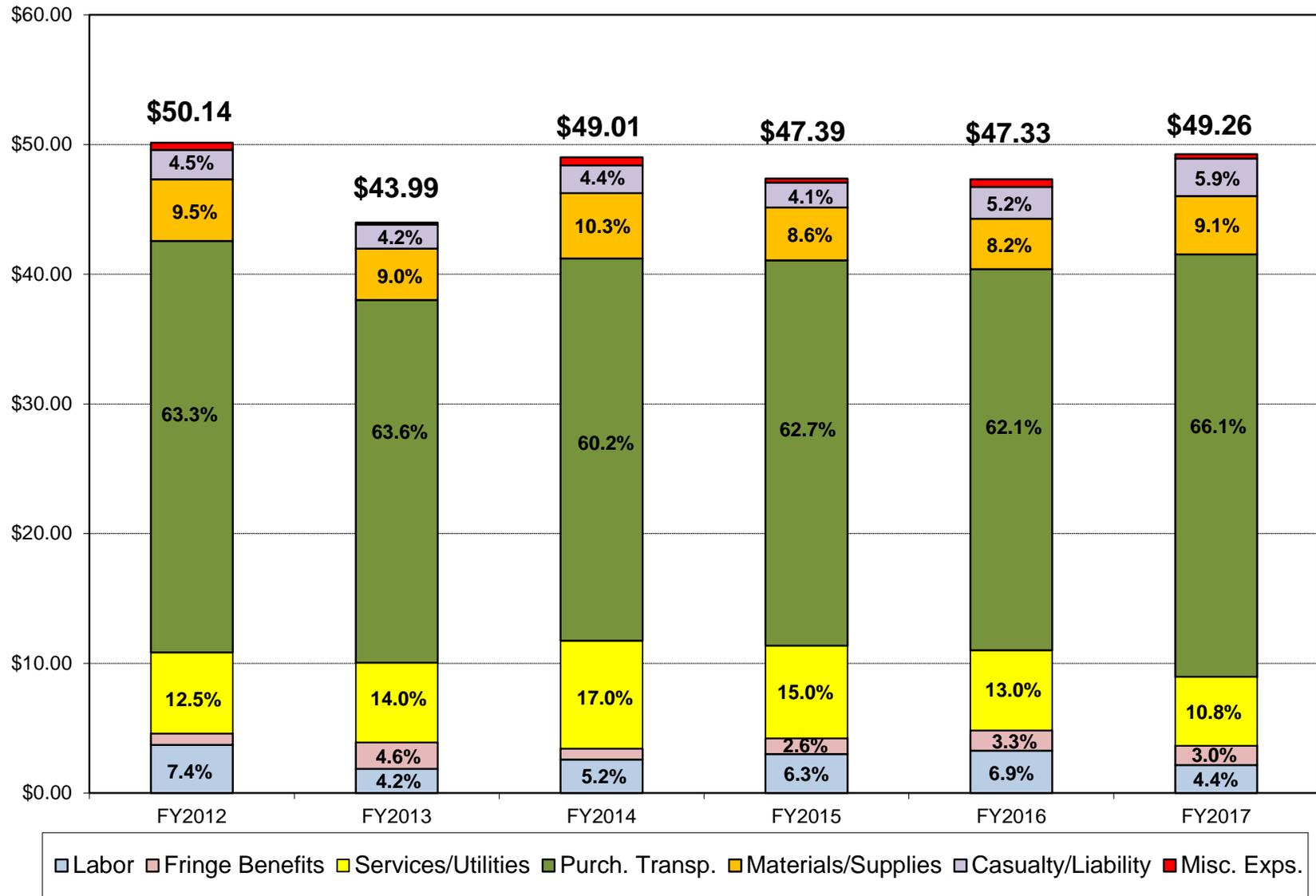
Exhibit 4.5: Component Cost Trends – Bus Service

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017 (a)	Av. Ann. Chg.
COST CATEGORIES							
Labor (Salaries/Wages)	\$125,252	\$73,306	\$94,006	\$110,038	\$120,374	\$79,976	--
<i>Annual Change</i>	--	-41.5%	28.2%	17.1%	9.4%	-33.6%	-8.6%
Fringe Benefits	\$29,709	\$79,956	\$31,203	\$44,956	\$57,858	\$55,494	--
<i>Annual Change</i>	--	169.1%	-61.0%	44.1%	28.7%	-4.1%	13.3%
Services/Utilities	\$211,047	\$241,024	\$303,692	\$261,671	\$227,481	\$196,340	--
<i>Annual Change</i>	--	14.2%	26.0%	-13.8%	-13.1%	-13.7%	-1.4%
Purchased Transportation	\$1,071,103	\$1,096,717	\$1,077,550	\$1,091,308	\$1,083,305	\$1,207,576	--
<i>Annual Change</i>	--	2.4%	-1.7%	1.3%	-0.7%	11.5%	2.4%
Materials/Supplies (b)	\$160,961	\$155,287	\$184,094	\$149,905	\$143,479	\$166,857	--
<i>Annual Change</i>	--	-3.5%	18.6%	-18.6%	-4.3%	16.3%	0.7%
Casualty/Liability	\$76,651	\$73,151	\$78,149	\$70,586	\$90,263	\$106,834	--
<i>Annual Change</i>	--	-4.6%	6.8%	-9.7%	27.9%	18.4%	6.9%
Miscellaneous Expenses	\$18,301	\$5,893	\$22,712	\$11,472	\$21,831	\$12,614	--
<i>Annual Change</i>	--	-67.8%	285.4%	-49.5%	90.3%	-42.2%	-7.2%
Total	\$1,693,024	\$1,725,334	\$1,791,406	\$1,739,936	\$1,744,591	\$1,825,691	--
<i>Annual Change</i>	--	1.9%	3.8%	-2.9%	0.3%	4.6%	1.5%
OPERATING STATISTICS							
Vehicle Service Hours	33,767	39,222	36,549	36,719	36,864	37,059	--
<i>Annual Change</i>	--	16.2%	-6.8%	0.5%	0.4%	0.5%	1.9%

(a) FY2017 reflects "current adjusted" costs

(b) Includes fuels/lubricants and other materials/supplies

Exhibit 4.6: Distribution of Component Costs – Bus Service
Operating Cost per Vehicle Service Hour



Paratransit Performance Trends

This section provides an overview of the performance of Vacaville'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 5.4.

- Operating Cost per Vehicle Service Hour (Exhibit 5.1)
 - Vacaville's paratransit cost per hour decreased from about \$69 in FY2012 to below \$64 in FY2017.
 - A reduction in operating costs of nearly ten percent in FY2017 positively affected the operating cost per hour indicator.
 - Overall, the cost per hour decreased an average of 1.6 percent per year over the six years.
 - With the effects of inflation removed, cost per hour exhibited an average annual decrease of 4.2 percent.
- Passengers per Vehicle Service Hour (Exhibit 5.2)
 - Passengers per vehicle service hour increased in some years and decreased in other years, but remained between three and four passengers through the period.
 - The trend amounted to an average annual decrease of 1.0 percent, as overall annual passenger levels decreased at more than twice the rate of service hours.
- Passengers per Vehicle Service Mile (Exhibit 5.2)
 - Performance in passengers per vehicle service mile also decreased overall, with the largest annual decrease (11.1 percent) reported in FY2014, followed by further reductions in each subsequent year.

- Passengers per mile posted an average annual decrease of 3.5 percent over the six-year period.
- Operating Cost per Passenger (Exhibit 5.3)
 - The cost per passenger decreased by 0.7 percent per year on average through the review period, from \$19.86 in FY2012 to \$19.21 in FY2017.
 - The trend was driven by passenger levels decreasing 1.8 percent per year on average, as operating costs decreased by 2.4 percent annually.
 - The nearly ten percent reduction in operating costs in FY2017 positively affected the operating cost per passenger trend as well.
 - With the impact of inflation removed, the result was an average annual decrease in the cost per passenger of 3.2 percent.
- Vehicle Service Hours per FTE (Exhibit 5.4)
 - Employee productivity (primarily based on contractor work hours) decreased over the six years, from 814 hours per FTE in FY2012 to 736 hours in FY2017.
 - Employee FTEs increased modestly while service hours decreased slightly overall during the period.
 - The net result was an average annual decrease in employee productivity of two percent.

* * * * *

The following is a brief summary of the paratransit TDA performance trend highlights over the six-year period of FY2012 through FY2017:

- For cost efficiency, there was an average annual decrease in the operating cost per hour of 1.6 percent, which amounted to an annual decrease of 4.2

percent in inflation adjusted dollars. A reduction in operating costs in FY2017 positively affected the cost per hour trend.

- The operating cost per passenger achieved an average annual decrease of 3.2 percent, when normalized in FY2012 dollars. The reduction in operating costs in FY2017 also positively affected this indicator.
- Passenger productivity showed somewhat negative results, with passengers per hour decreasing by 1.0 percent per year on average, and passengers per mile decreasing by 3.5 percent annually.
- The net result for employee productivity was an average annual decrease of two percent.

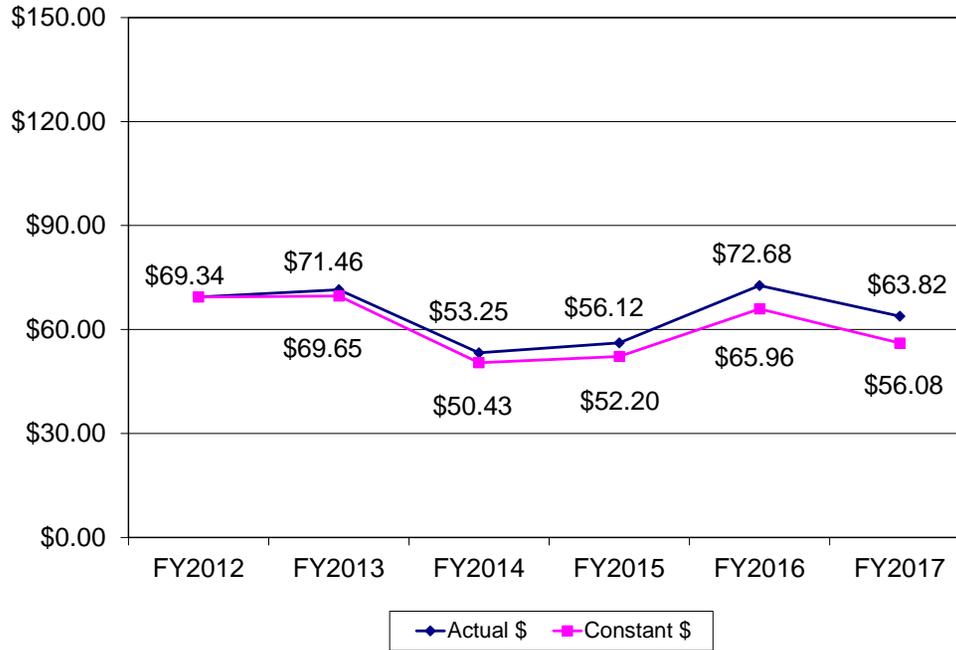
Exhibit 5: TDA Indicator Performance – Paratransit

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	Av. Ann. Chg.
Performance Indicators							
Op. Cost per Vehicle Svc. Hour (Actual \$)	\$69.34	\$71.46	\$53.25	\$56.12	\$72.68	\$63.82	- -
<i>Annual Change</i>	- -	3.0%	-25.5%	5.4%	29.5%	-12.2%	-1.6%
Op. Cost per Vehicle Svc. Hour (Constant \$)	\$69.34	\$69.65	\$50.43	\$52.20	\$65.96	\$56.08	- -
<i>Annual Change</i>	- -	0.4%	-27.6%	3.5%	26.3%	-15.0%	-4.2%
Passengers per Vehicle Service Hour	3.5	3.7	3.3	3.5	3.5	3.3	- -
<i>Annual Change</i>	- -	6.1%	-11.4%	6.7%	0.5%	-5.6%	-1.0%
Passengers per Vehicle Service Mile	0.31	0.32	0.28	0.28	0.28	0.26	- -
<i>Annual Change</i>	- -	2.2%	-11.1%	-1.5%	-0.6%	-6.1%	-3.5%
Op. Cost per Passenger (Actual \$)	\$19.86	\$19.29	\$16.22	\$16.02	\$20.64	\$19.21	- -
<i>Annual Change</i>	- -	-2.9%	-15.9%	-1.2%	28.9%	-6.9%	-0.7%
Op. Cost per Passenger (Constant \$)	\$19.86	\$18.80	\$15.36	\$14.90	\$18.73	\$16.88	- -
<i>Annual Change</i>	- -	-5.3%	-18.3%	-3.0%	25.7%	-9.9%	-3.2%
Vehicle Service Hours per FTE	814	732	749	733	710	736	- -
<i>Annual Change</i>	- -	-10.0%	2.3%	-2.1%	-3.1%	3.7%	-2.0%
Input Data							
Operating Cost (Actual \$)	\$554,536	\$519,425	\$398,277	\$422,077	\$541,567	\$490,811	- -
<i>Annual Change</i>	- -	-6.3%	-23.3%	6.0%	28.3%	-9.4%	-2.4%
Operating Cost (Constant \$)	\$554,536	\$506,262	\$377,156	\$392,630	\$491,440	\$431,293	- -
<i>Annual Change</i>	- -	-8.7%	-25.5%	4.1%	25.2%	-12.2%	-4.9%
Vehicle Service Hours	7,997	7,269	7,479	7,521	7,451	7,690	- -
<i>Annual Change</i>	- -	-9.1%	2.9%	0.6%	-0.9%	3.2%	-0.8%
Vehicle Service Miles	89,376	84,373	86,526	94,230	94,412	97,912	- -
<i>Annual Change</i>	- -	-5.6%	2.6%	8.9%	0.2%	3.7%	1.8%
Unlinked Passengers	27,927	26,933	24,562	26,354	26,240	25,552	- -
<i>Annual Change</i>	- -	-3.6%	-8.8%	7.3%	-0.4%	-2.6%	-1.8%
Employee Full-Time Equivalents	9.8	9.9	10.0	10.3	10.5	10.4	- -
<i>Annual Change</i>	- -	1.0%	0.6%	2.8%	2.3%	-0.5%	1.2%
Bay Area CPI - Annual Change	- -	2.6%	2.9%	1.9%	2.5%	3.3%	- -
- Cumulative Change	- -	2.6%	5.6%	7.5%	10.2%	13.8%	2.6%

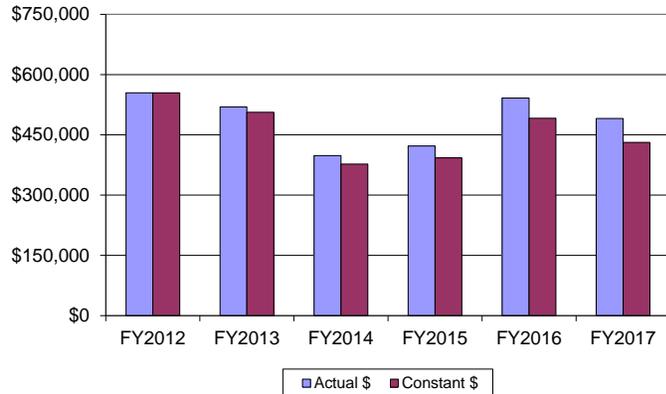
Sources: FY2012 through FY2017 - Financial Transaction Reports to the California State Controller (Vacaville - Specialized Services), except:
FY2012 Hours & Passengers, FY2017 Miles & Passengers - Annual Quarterly Performance Report Summaries
FY2012 through FY2014 FTEs - Prior Performance Audit Report
FY2015 through FY2017 FTEs - City Staff

Note: Includes City Coach Special Services and Local Taxi Scrip Program

Exhibit 5.1: Operating Cost per Vehicle Service Hour – Paratransit



Operating Cost



Vehicle Service Hours

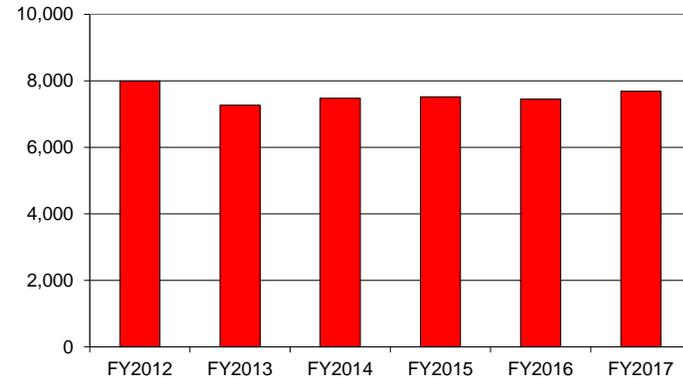
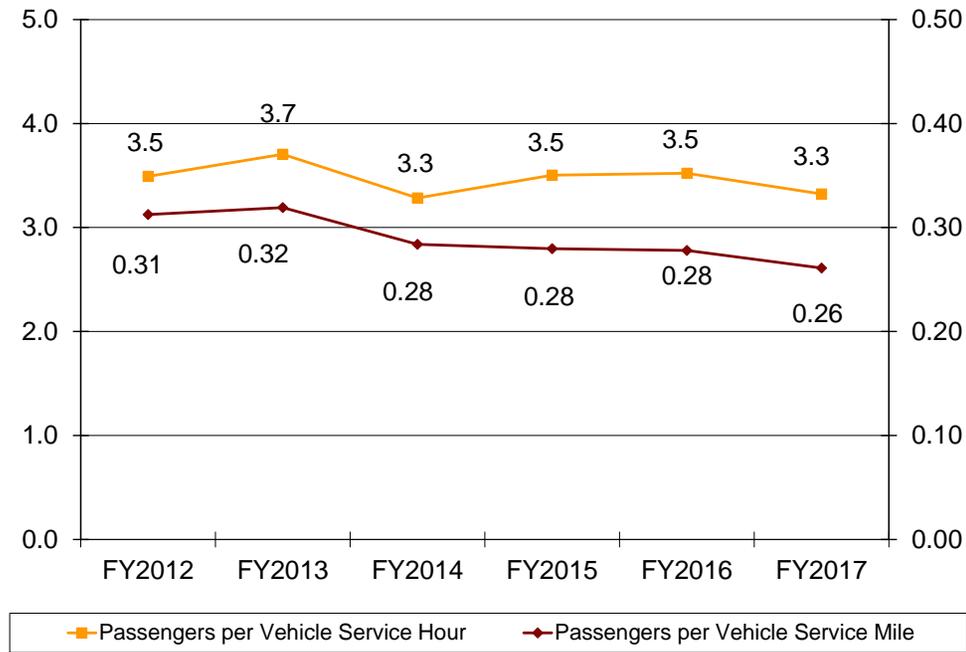
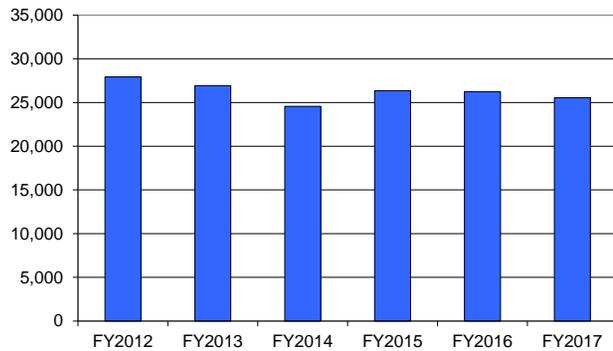


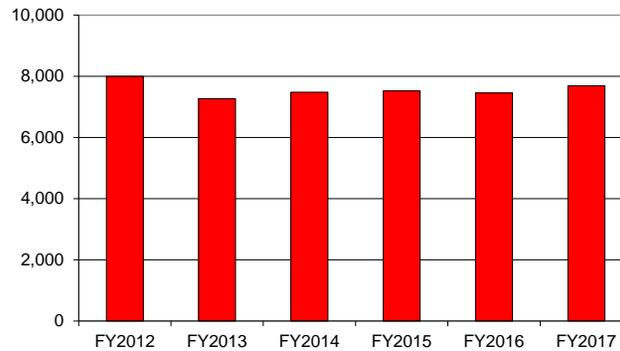
Exhibit 5.2: Passengers per Hour and per Mile – Paratransit



Unlinked Passengers



Vehicle Service Hours



Vehicle Service Miles

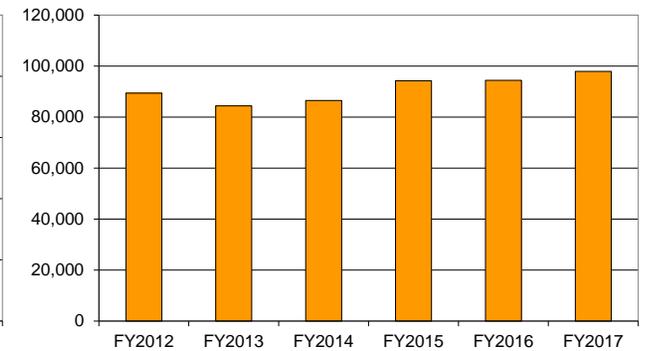
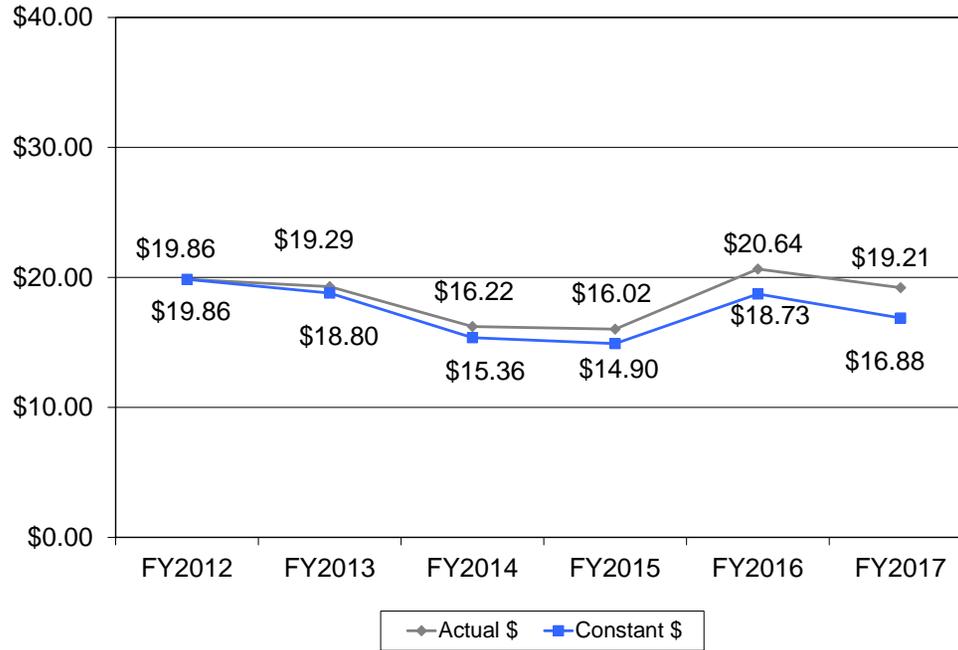
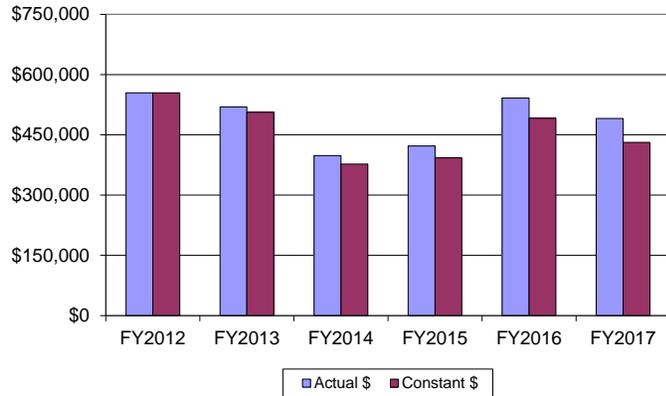


Exhibit 5.3: Operating Cost per Passenger – Paratransit



Operating Cost



Unlinked Passengers

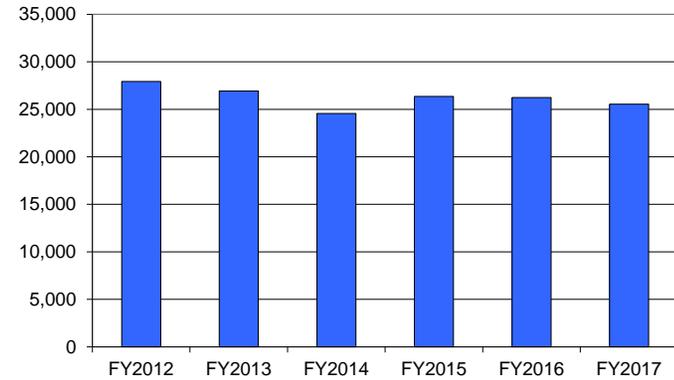
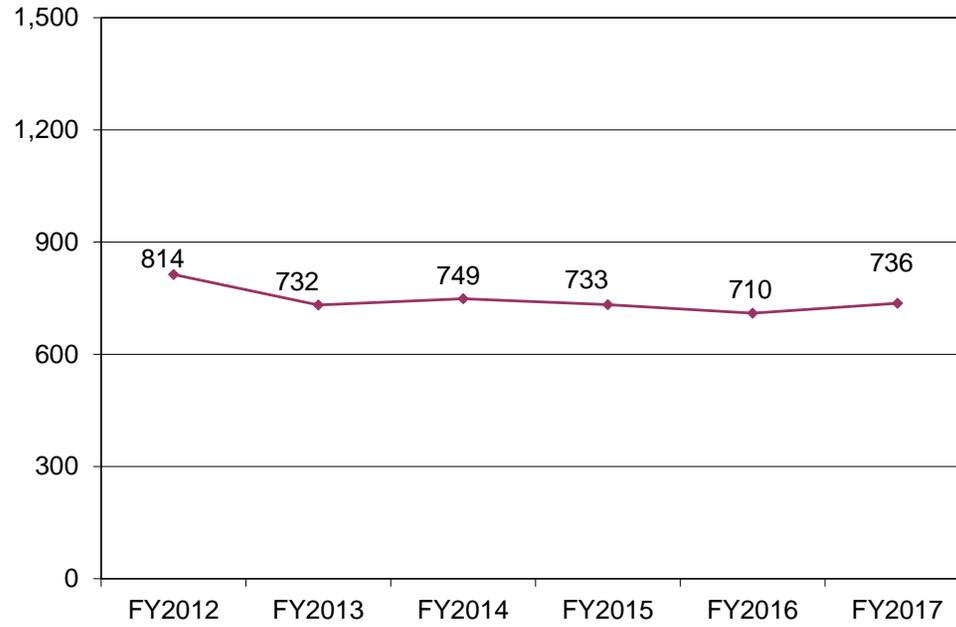
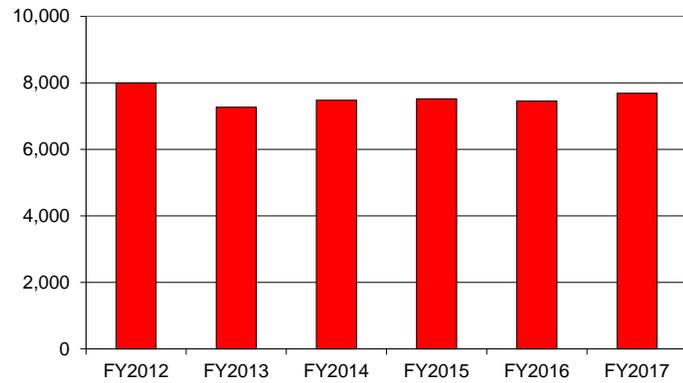


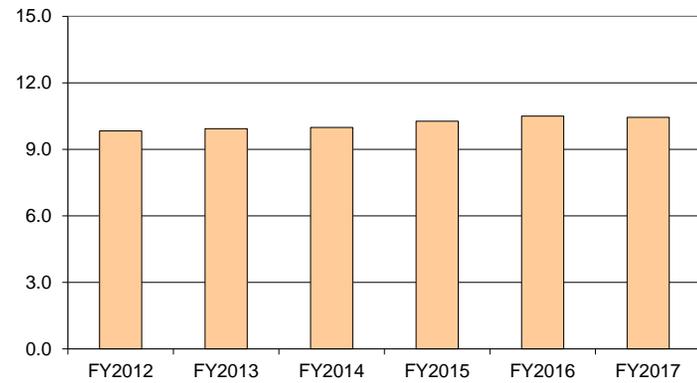
Exhibit 5.4: Vehicle Service Hours per FTE – Paratransit



Vehicle Service Hours



Full-time Equivalents



Paratransit Component Costs

The year-to-year changes in selected operating cost categories are presented in Exhibit 5.5, 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 5.6.

- While not major components of total costs, annual in-house labor and fringe benefits costs both decreased on average over the six years, and specifically in FY2016 and FY2017 as well. Overall, the decrease in labor costs was about twice the rate of the decrease in fringe benefits costs.
- Purchased transportation costs decreased significantly in FY2014 and then increased noticeably in FY2016, but still decreased by less than two percent per year on average over the six years.
- Casualty/liability costs increased by about four percent on average per year, with the most significant increase in FY2016 (30 percent higher than in FY2015). Similar to fixed-route, there were also decreases in certain years, which appears in line with the relative unpredictability of settlement activity.
- Purchased transportation costs contributed between 53 and 69 percent of total costs through the period, with the lowest results in the middle two years.
- Services/utilities represented the next largest portion of the total cost per hour in most years, especially toward the end of the period when the range was 12 to 14 percent.
- Materials/supplies costs contributed about eight percent of the total in the first two and last two years, but close to 11 percent in FY2014 and FY2015.
- Casualty/liability costs represented about six to eight percent of total costs in all years.

* * * * *

The following is a brief summary of the paratransit component operating costs trend highlights between FY2012 and FY2017:

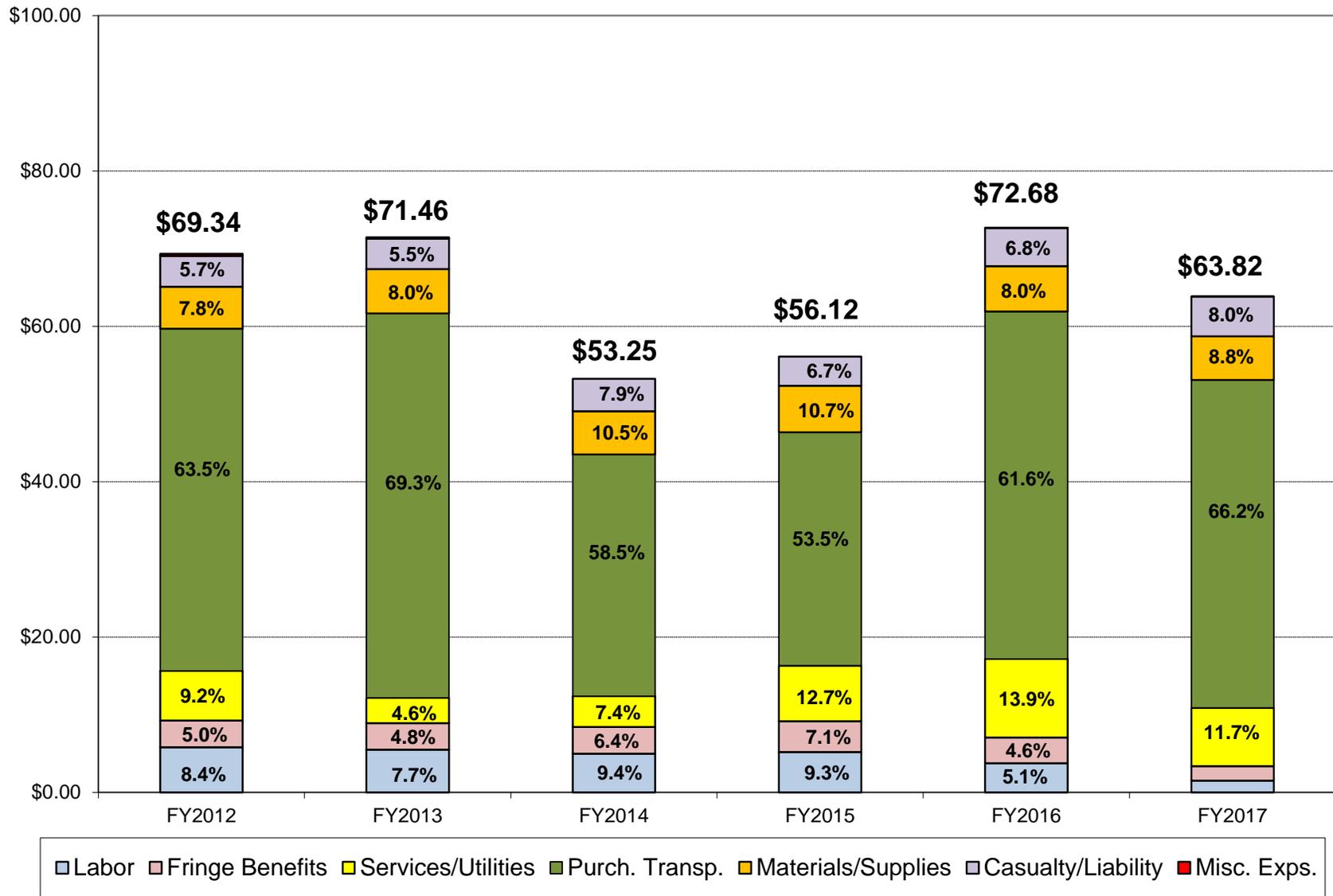
- While contributing relatively small portions to total operating costs, in-house labor and fringe benefits costs both decreased, but the former more substantially.
- Purchased transportation costs fluctuated in certain years but remained relatively steady on average. They comprised between 53 and 69 percent of the total operating costs, with the lowest results in the middle years.
- Casualty/liability costs increased by about four percent on average per year, with a 30 percent increase in FY2016 but decreases in certain years as well.
- Other component cost categories each contributed shares of less than 15 percent of total operating costs over the six years.

Exhibit 5.5: Component Costs Trends – Paratransit

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	Av. Ann. Chg.
COST CATEGORIES							
Labor (Salaries/Wages)	\$46,486	\$39,962	\$37,329	\$39,125	\$27,867	\$11,532	--
<i>Annual Change</i>	--	-14.0%	-6.6%	4.8%	-28.8%	-58.6%	-24.3%
Fringe Benefits	\$27,572	\$24,754	\$25,655	\$29,840	\$24,734	\$14,529	--
<i>Annual Change</i>	--	-10.2%	3.6%	16.3%	-17.1%	-41.3%	-12.0%
Services/Utilities	\$51,067	\$23,766	\$29,544	\$53,790	\$75,471	\$57,650	--
<i>Annual Change</i>	--	-53.5%	24.3%	82.1%	40.3%	-23.6%	2.5%
Purchased Transportation	\$352,261	\$359,876	\$232,802	\$225,874	\$333,339	\$324,679	--
<i>Annual Change</i>	--	2.2%	-35.3%	-3.0%	47.6%	-2.6%	-1.6%
Materials/Supplies (a)	\$43,394	\$41,328	\$41,647	\$45,029	\$43,353	\$43,201	--
<i>Annual Change</i>	--	-4.8%	0.8%	8.1%	-3.7%	-0.4%	-0.1%
Casualty/Liability	\$31,558	\$28,481	\$31,300	\$28,419	\$36,777	\$39,214	--
<i>Annual Change</i>	--	-9.8%	9.9%	-9.2%	29.4%	6.6%	4.4%
Miscellaneous Expenses	\$2,198	\$1,258	\$0	\$0	\$26	\$6	--
<i>Annual Change</i>	--	-42.8%	-100.0%	--	--	-76.9%	-69.3%
Total	\$554,536	\$519,425	\$398,277	\$422,077	\$541,567	\$490,811	--
<i>Annual Change</i>	--	-6.3%	-23.3%	6.0%	28.3%	-9.4%	-2.4%
OPERATING STATISTICS							
Vehicle Service Hours	7,997	7,269	7,479	7,521	7,451	7,690	--
<i>Annual Change</i>	--	-9.1%	2.9%	0.6%	-0.9%	3.2%	-0.8%

(a) Includes fuels/lubricants and other materials/supplies

Exhibit 5.6: Distribution of Component Costs – Paratransit
Operating Cost per Vehicle Service Hour



IV. COMPLIANCE WITH PUC REQUIREMENTS

An assessment of Vacaville'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 Vacaville's TDA-STA claim application.

The results from this review are detailed by individual requirement in Exhibit 6. Vacaville 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.

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 Inspections: <ul style="list-style-type: none"> • 2015: 01/22/15 • 2016: 02/10/16 • 2017: 02/16/17
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 vehicle staffing in: <ul style="list-style-type: none"> • <i>The Agreement for the Provision of Fixed-Route and Paratransit Services</i> between the City of Vacaville and First Transit, Inc. dated May 2, 2011 • The First and Second Amendments of 2013 to the above Agreement • <i>The Agreement for the Provision of Fixed-Route and Paratransit Services</i> between the City of Vacaville and First Transit, Inc. dated July 28, 2016
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	Vacaville contracts with First Transit, Inc. to provide its fixed-route and paratransit services. Further, the labor agreements between First Transit, Inc. and the Brotherhood of Teamsters and Chauffeurs Local 315 indicate general assignments of full- and part-time drivers.

Code Reference	Operator Compliance Requirements	Compliance Finding	Verification Information
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	Fare information on the City Coach web site
PUC99155.1 (a)(1)(2)	<u>Welfare to Work Coordination</u> - Operators must coordinate 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	<ul style="list-style-type: none"> • Participates in the regional MTC Coordinated Human Services Transportation Plan. • Involved in the 2010 Community Based Transportation Plan project, intended to identify the transportation needs of residents of low-income communities of concern in Vacaville, and to develop strategies to meet those needs. • Monthly meetings with transit partners at the Solano Transportation Authority (STA), with a primary mission to coordinate transportation services throughout the community -- including efforts that relate to welfare-to-work.
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	<ul style="list-style-type: none"> • Signatory participant in Amended and Restated Clipper® Memorandum of Understanding (February 2016). Agreement also includes MTC and the other transit operators participating in the Clipper® program.

Code Reference	Operator Compliance Requirements	Compliance Finding	Verification Information
			<ul style="list-style-type: none"> • Signatory participant in Intercity Paratransit Services Agreement (July 2016-June 2018). Agreement also includes: Solano Transportation Authority, Solano County, SolTrans, and the cities of Dixon, Fairfield, and Rio Vista. • Signatory participant in Intercity ADA Taxi Scrip Program Agreement (undated). Agreement also includes: Solano County, various taxi companies, and the cities of Benicia, Dixon, Fairfield, Suisun City, Vallejo, and Rio Vista. • Agreement between the Solano Transportation Authority, City of Fairfield, City of Vacaville, and SolTrans for the implementation of the Solano Community College Transportation Pilot Program (2017-18 school year).

Code Reference	Operator Compliance Requirements	Compliance Finding	Verification Information
PUC99246(d)	<p><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</p>	<p>In Compliance</p>	<ul style="list-style-type: none"> • <u>On-Board Transit Surveys</u> – conducted to evaluate the needs of riders on a regular basis. • <u>Route by Route Data Tracking</u> – monitoring of monthly reports generated by the operating contractor to develop a trend analysis report. • <u>Route-Level Passenger Monitoring</u> - continuous detailed route level passenger counting. Bus drivers record stop-by-stop ridership information to develop an overall picture of the usage of a particular route, and specifically route segments that may warrant a service shift. • <u>Public Forums and Outreach</u> - customer-oriented planning approach includes public meetings to gather input from transit riders and the general public. Additionally, staff conduct outreach programs (e.g., with schools, youth and senior Round Table committees), to educate citizens and discuss transit related issues and concerns. • <u>Title VI Program</u> - prepared to ensure that the level and quality of services are provided in a nondiscriminatory manner and that the opportunity for full and fair participation is offered to riders and other community members. Also addressed is the need for services and materials for persons who have a limited ability to read, write, speak, or understand English.

V. STATUS OF PRIOR AUDIT RECOMMENDATIONS

Vacaville's prior performance audit was completed in May 2015. 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 Vacaville's responses to the recommendations made in the prior performance audit, and whether Vacaville made reasonable progress toward their implementation. However, there were no recommendations made in Vacaville's prior audit.

VI. FUNCTIONAL PERFORMANCE INDICATOR TRENDS

To further assess Vacaville'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 Vacaville or for which input data were maintained by Vacaville on an on-going basis, such as performance reports, contractor reports and annual financial 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, Vacaville'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 decreased from about 28 percent of total operating costs in FY2015 to 24 percent in the last two years.
- Administrative costs went down from \$14.35 per vehicle service hour in the first year to about \$12.55 subsequently (a 12.5 percent decrease).
- The portion of administrative costs attributed to marketing activities remained between four and five percent through the audit period.
- Marketing expenditures were reduced from \$0.06 per passenger trip in FY2015 to \$0.05 in the following years.
- The systemwide farebox recovery ratio declined steadily from just over 20 percent in FY2015 to 17.1 percent by FY2017.

* * * * *

The following is a brief summary of the systemwide functional trend highlights between FY2015 and FY2017:

- Administrative costs decreased moderately to 24 percent of total operating costs in FY2016 and FY2017, and at the same time decreased by 12.5 percent to about \$12.50 per vehicle service hour.
- Marketing costs were relatively steady compared to total administrative costs, while decreasing slightly to \$0.05 per passenger trip in the last two years.
- The systemwide farebox recovery ratio declined from over 20 percent to 17.1 percent by FY2017.

Exhibit 7: Functional Performance Trends - Systemwide

FUNCTION/Indicator	Actual Performance		
	FY2015	FY2016	FY2017
MANAGEMENT, ADMINISTRATION & MARKETING			
Administrative Cost/Total Operating Cost	27.7%	24.1%	23.8%
<i>Annual Percent Change</i>	--	-12.9%	-1.1%
<i>Three Year Percent Change</i>	--	--	-13.9%
Administrative Cost/Vehicle Service Hour	\$14.35	\$12.55	\$12.56
<i>Annual Percent Change</i>	--	-12.5%	0.1%
<i>Three Year Percent Change</i>	--	--	-12.5%
Marketing Cost/Total Administrative Cost	4.6%	4.8%	4.1%
<i>Annual Percent Change</i>	--	5.9%	-14.8%
<i>Three Year Percent Change</i>	--	--	-9.8%
Marketing Cost/Unlinked Passenger Trip	\$0.06	\$0.05	\$0.05
<i>Annual Percent Change</i>	--	-8.5%	-2.2%
<i>Three Year Percent Change</i>	--	--	-10.5%
Farebox Recovery Ratio (Farebox Rev./Oper. Cost)	20.1%	19.3%	17.1%
<i>Annual Percent Change</i>	--	-4.2%	-11.6%
<i>Three Year Percent Change</i>	--	--	-15.3%

Bus Service

Vacaville'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
 - The bus service farebox recovery ratio declined from 21.7 percent in the first year to 17.9 percent in FY2017. This trend appears primarily driven by the lost revenue associated with the 12.2 percent reduction in bus passengers in FY2017, discussed previously as generally in line with the recent experience of transit operators across the country.
 - The TDA recovery ratio decreased from 21.7 percent to 18.3 percent. For this calculation, farebox revenue is augmented with local support and operating costs reflect various allowable exclusions. (Vacaville reported no qualifying local support during the audit period, and an allowable cost exclusion only in FY2017.)
 - About 97 percent of all vehicle miles traveled were in service, as were about 98 percent of all vehicle hours in all three years.
 - Passengers carried per service mile and per service hour both fell by more than 12 percent in FY2017, reflecting the notable loss of ridership in that year while service levels remained basically steady.

- Operations
 - Vehicle operations costs comprised 62 percent of total operating costs in the first two years, but increased to 66 percent in FY2017.
 - Vehicle operations costs per service hour increased as well in the last year, from below \$30 to \$32.59 (about ten percent).
 - Schedule adherence declined from 92 percent in FY2015 and FY2016 to 90 percent in FY2017.

- The rate of complaints decreased overall by 15 percent during the audit period, despite a spike in the middle year (FY2016).
- There were no missed trips in the first two years and virtually none in the last year.
- Maintenance
 - Total maintenance costs comprised about 11 percent of total operating costs in the first and last years, but reached 14.6 percent in FY2016.
 - Similarly, vehicle maintenance costs per service mile increased in the interim year to \$0.51, compared to below \$0.40 in the first and last years.
 - The vehicle spare ratio remained at 22.2 percent throughout the audit period.
 - The mean distance between road calls worsened from 43,000 miles in FY2015 to 24,000 in the next year, followed by some rebounding to 32,000 miles in FY2017.
- Safety
 - The rate of preventable accidents nearly doubled between FY2015 and FY2016, and remained at the higher level in FY2017. These results reflect three preventable accidents in FY2015 and six in each following year.

* * * * *

The following is a brief summary of the bus service functional trend highlights between FY2015 and FY2017:

- Service Planning results showed the farebox recovery decreasing from 21.7 to 17.9 percent, and the TDA recovery ratio (reflecting local support and operating cost exclusions) decreasing to 18.3 percent. Consistently 97

percent or more vehicle miles and hours were in service, but passenger productivity fell by more than 12 percent with the notable ridership loss in FY2017.

- Operations results showed vehicle operations costs per service hour increasing by ten percent in FY2017, and increasing from 62 to 66 percent of total costs as well. There was some reduction in schedule adherence to 90 percent, an overall decrease in complaints received, and virtually no missed trips.
- Maintenance results showed maintenance costs between and 11 and 14 percent of total costs, vehicle maintenance costs per service mile below \$0.40 in the first and last years, a steady 22.2 percent vehicle spare ratio, but overall deterioration of the road call rate with some rebounding in FY2017.
- Safety results showed the rate of preventable accidents in the last two years almost double that of FY2015.

Exhibit 8: Functional Performance Trends – Bus Service

FUNCTION/Indicator	Actual Performance		
	FY2015	FY2016	FY2017
SERVICE PLANNING			
Farebox Recovery Ratio (Farebox Rev./Oper. Cost)	21.7%	20.7%	17.9%
<i>Annual Percent Change</i>	--	-4.4%	-13.8%
<i>Three Year Percent Change</i>	--	--	-17.6%
TDA Recovery Ratio (a)	21.7%	20.7%	18.3%
<i>Annual Percent Change</i>	--	-4.4%	-12.0%
<i>Three Year Percent Change</i>	--	--	-15.8%
Vehicle Service Miles/Total Miles	97.2%	96.4%	96.6%
<i>Annual Percent Change</i>	--	-0.8%	0.2%
<i>Three Year Percent Change</i>	--	--	-0.6%
Vehicle Service Hours/Total Hours	98.1%	98.0%	97.9%
<i>Annual Percent Change</i>	--	-0.1%	-0.1%
<i>Three Year Percent Change</i>	--	--	-0.2%
Passengers/Vehicle Service Mile	0.96	0.98	0.86
<i>Annual Percent Change</i>	--	1.9%	-12.5%
<i>Three Year Percent Change</i>	--	--	-10.8%
Passengers/Vehicle Service Hour	13.2	13.4	11.7
<i>Annual Percent Change</i>	--	1.1%	-12.7%
<i>Three Year Percent Change</i>	--	--	-11.7%
OPERATIONS			
Vehicle Operations Cost/Total Operating Cost	62.7%	62.1%	66.1%
<i>Annual Percent Change</i>	--	-1.0%	6.5%
<i>Three Year Percent Change</i>	--	--	5.5%
Vehicle Operations Cost/Vehicle Service Hour	\$29.72	\$29.39	\$32.59
<i>Annual Percent Change</i>	--	-1.1%	10.9%
<i>Three Year Percent Change</i>	--	--	9.6%
Trips On-Time/Total Trips	92.0%	92.0%	90.0%
<i>Annual Percent Change</i>	--	0.0%	-2.2%
<i>Three Year Percent Change</i>	--	--	-2.2%
Complaints/100,000 Unlinked Passenger Trips	0.8	1.8	0.7
<i>Annual Percent Change</i>	--	121.7%	-62.0%
<i>Three Year Percent Change</i>	--	--	-15.8%
Missed Trips/Total Trips	0.00%	0.00%	0.01%
<i>Annual Percent Change</i>	--	--	--
<i>Three Year Percent Change</i>	--	--	--

FUNCTION/Indicator	Actual Performance		
	FY2015	FY2016	FY2017
MAINTENANCE			
Vehicle + Non-Veh. Maint. Cost/Total Operating Cost	11.4%	14.6%	10.5%
<i>Annual Percent Change</i>	--	28.7%	-28.3%
<i>Three Year Percent Change</i>	--	--	-7.7%
Vehicle Maintenance Cost/Vehicle Service Mile	\$0.39	\$0.51	\$0.38
<i>Annual Percent Change</i>	--	29.6%	-25.2%
<i>Three Year Percent Change</i>	--	--	-3.1%
Spare Vehicles/Total Vehicles	22.2%	22.2%	22.2%
<i>Annual Percent Change</i>	--	0.0%	0.0%
<i>Three Year Percent Change</i>	--	--	0.0%
Mean Distance between Road Calls (Miles)	43,291	24,830	32,621
<i>Annual Percent Change</i>	--	-42.6%	31.4%
<i>Three Year Percent Change</i>	--	--	-24.6%
SAFETY			
Preventable Accidents/100,000 Vehicle Miles	0.58	1.15	1.15
<i>Annual Percent Change</i>	--	99.3%	-0.1%
<i>Three Year Percent Change</i>	--	--	99.1%

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

Paratransit

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

- Service Planning
 - The farebox recovery ratio improved from 7.7 percent in the first year to more than eight percent subsequently. At the same time, the TDA recovery ratio (farebox revenue augmented with local support and operating costs reflecting allowable exclusions) remained at over eight percent.
 - Vehicle miles traveled were in service rose in each year to almost 90 percent by FY2017, while just over 90 percent of all vehicle hours were in service in all three years.
 - Passengers carried per service mile remained in a range of 0.22 to 0.24 through the period, while there were between 2.6 and 2.9 passengers carried per service hour.

- Operations
 - Vehicle operations costs consistently comprised just under 60 percent of total operating costs.
 - Vehicle operations costs per service hour decreased overall from about \$43 to \$41.50 (three percent).
 - Schedule adherence increased during the audit period from 94 percent in FY2015 to 95 percent in FY2016 and FY2017.
 - The rate of complaints also increased, by more than 40 percent overall during the period. However, in absolute numbers, there were very few complaints.

- There were no missed trips but there were a small number of ADA trip denials reported (two or three per year).
 - The trip cancellation rate remained at about 0.6 percent of total ADA trips, and late trip cancellations at 0.1 or 0.2 percent.
 - The passenger no-show rate decreased overall, and remained at 0.2 percent or less of total ADA trips.
- Maintenance
 - Total maintenance costs increased from about nine percent of total operating costs in FY2015 to nearly 14 percent in the next year, and then down to 11 percent in FY2017.
 - Vehicle maintenance costs per service mile increased overall from \$0.57 to \$0.62 (7.5 percent), although substantially higher costs were reported for the middle year.
 - The vehicle spare ratio decreased from 57 percent in the first year to 50 percent thereafter. Of six or seven vehicles in the fleet inventory per year, three or four were designated as spares.
 - The mean distance between road calls worsened from 24,000 miles in FY2015 to less than 7,000 in the next year, followed by almost a complete turnaround to 20,000 miles in FY2017. This trend reflects 11 road calls in FY2016, compared with three or four in the other years.
 - Safety
 - The rate of preventable accidents improved significantly in each year, from more than four accidents per 100,000 miles in FY2015 to just one in FY2017.

* * * * *

The following is a brief summary of the paratransit (Special Services) functional trend highlights between FY2015 and FY2017:

- Service Planning results showed the farebox recovery ratio increasing from 7.7 to more than eight percent, and the TDA recovery ratio (reflecting local support and operating cost exclusions) remaining over eight percent. Consistently about 90 percent vehicle miles and hours were in service, and passenger productivity was relatively steady.
- Operations results showed a modest decrease in vehicle operations costs per hour, with relatively steady levels when compared to total costs. Schedule adherence remained at about 95 percent. There was a significant increase in the rate of complaints, but very few complaints in absolute numbers. There were no missed trips and very low rates of cancellations, late cancellations and passenger no-shows. Two or three ADA trip denials were reported in each year.
- Maintenance results showed total maintenance costs increasing overall from nine to 11 percent of total costs, while vehicle maintenance costs per service mile increased overall from \$0.57 to \$0.62. The spare ratio was at 50 percent or higher in all years, while the road call rate worsened generally but improved significantly in FY2017 compared to the previous year.
- Safety results showed the preventable accident rate improved steadily and significantly.

Exhibit 9: Functional Performance Trends – Paratransit

FUNCTION/Indicator	Actual Performance		
	FY2015	FY2016	FY2017
SERVICE PLANNING			
Farebox Recovery Ratio (Farebox Rev./Oper. Cost)	7.7%	8.3%	8.2%
<i>Annual Percent Change</i>	--	8.4%	-1.8%
<i>Three Year Percent Change</i>	--	--	6.5%
TDA Recovery Ratio (a)	8.4%	8.9%	8.2%
<i>Annual Percent Change</i>	--	6.3%	-8.4%
<i>Three Year Percent Change</i>	--	--	-2.6%
Vehicle Service Miles/Total Miles	87.9%	88.6%	89.2%
<i>Annual Percent Change</i>	--	0.8%	0.7%
<i>Three Year Percent Change</i>	--	--	1.4%
Vehicle Service Hours/Total Hours	90.2%	91.3%	90.5%
<i>Annual Percent Change</i>	--	1.1%	-0.9%
<i>Three Year Percent Change</i>	--	--	0.3%
Passengers/Vehicle Service Mile	0.22	0.24	0.23
<i>Annual Percent Change</i>	--	10.7%	-7.0%
<i>Three Year Percent Change</i>	--	--	3.0%
Passengers/Vehicle Service Hour	2.6	2.9	2.8
<i>Annual Percent Change</i>	--	11.9%	-3.7%
<i>Three Year Percent Change</i>	--	--	7.7%
OPERATIONS			
Vehicle Operations Cost/Total Operating Cost	57.7%	56.5%	59.7%
<i>Annual Percent Change</i>	--	-2.0%	5.6%
<i>Three Year Percent Change</i>	--	--	3.5%
Vehicle Operations Cost/Vehicle Service Hour	\$42.75	\$43.00	\$41.50
<i>Annual Percent Change</i>	--	0.6%	-3.5%
<i>Three Year Percent Change</i>	--	--	-2.9%
Trips On-Time/Total Trips	94.0%	95.0%	95.0%
<i>Annual Percent Change</i>	--	1.1%	0.0%
<i>Three Year Percent Change</i>	--	--	1.1%
Complaints/10,000 Unlinked Passenger Trips	2.2	2.5	3.1
<i>Annual Percent Change</i>	--	13.8%	24.5%
<i>Three Year Percent Change</i>	--	--	41.6%
Missed Trips/Total Trips	0.0%	0.0%	0.0%
<i>Annual Percent Change</i>	--	--	--
<i>Three Year Percent Change</i>	--	--	--

FUNCTION/Indicator	Actual Performance		
	FY2015	FY2016	FY2017
OPERATIONS (continued)			
ADA Trip Denials/Total ADA Trips	0.02%	0.01%	0.02%
<i>Annual Percent Change</i>	--	-43.1%	49.3%
<i>Three Year Percent Change</i>	--	--	-15.1%
Trip Cancellations/Total ADA Trips	0.7%	0.5%	0.6%
<i>Annual Percent Change</i>	--	-26.1%	16.2%
<i>Three Year Percent Change</i>	--	--	-14.2%
Late Trip Cancellations/Total ADA Trips	0.1%	0.2%	0.1%
<i>Annual Percent Change</i>	--	52.3%	-40.3%
<i>Three Year Percent Change</i>	--	--	-9.0%
No-Shows/Total ADA Trips	0.19%	0.23%	0.15%
<i>Annual Percent Change</i>	--	24.7%	-34.5%
<i>Three Year Percent Change</i>	--	--	-18.3%
MAINTENANCE			
Vehicle + Non-Veh. Maint. Cost/Total Operating Cost	9.3%	13.8%	11.1%
<i>Annual Percent Change</i>	--	48.5%	-19.2%
<i>Three Year Percent Change</i>	--	--	19.9%
Vehicle Maintenance Cost/Vehicle Service Mile	\$0.57	\$0.86	\$0.62
<i>Annual Percent Change</i>	--	50.7%	-28.7%
<i>Three Year Percent Change</i>	--	--	7.5%
Spare Vehicles/Total Vehicles	57.1%	50.0%	50.0%
<i>Annual Percent Change</i>	--	-12.5%	0.0%
<i>Three Year Percent Change</i>	--	--	-12.5%
Mean Distance between Road Calls (Miles)	24,024	6,885	20,306
<i>Annual Percent Change</i>	--	-71.3%	194.9%
<i>Three Year Percent Change</i>	--	--	-15.5%
SAFETY			
Preventable Accidents/100,000 Vehicle Miles	4.16	2.64	1.23
<i>Annual Percent Change</i>	--	-36.6%	-53.4%
<i>Three Year Percent Change</i>	--	--	-70.4%

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

VII. CONCLUSIONS AND RECOMMENDATIONS

The preceding sections presented a review of Vacaville's transit service performance during the three-year period of FY2015 through FY2017 (July 1, 2014 through June 30, 2017). 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 Vacaville'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 – Vacaville 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 appear to be consistent with the TDA definitions, and indicate general consistency in terms of the direction and magnitude of the year-to-year changes across the statistics.
- TDA Performance Trends

Vacaville'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 FY2012 through FY2017:

- There was an average annual decrease in the operating cost per hour of 0.4 percent, which amounted to a 2.9 percent decrease in inflation adjusted dollars.
- The cost per passenger increased on average by 2.1 percent per year, which amounted to an average annual decrease of 0.5 percent in constant FY2012 dollars.
- Passenger productivity showed somewhat mixed trends, with passengers per vehicle service hour decreasing by 2.4 percent per year overall, and passengers per vehicle service mile increasing by 0.2 percent annually.
- Employee productivity increased an average 0.7 percent per year.

The following is a brief summary of the component operating costs trend highlights for the bus service between FY2012 and FY2017:

- While contributing relatively small portions to total operating costs, in-house labor costs decreased by 8.6 percent annually on average, while fringe benefit costs increased by 13.3 percent annually.
- Purchased transportation costs increased by 11.5 percent with a new operations contract in FY2017, and comprised over 60 percent of the total operating costs in all six years.
- Casualty/liability costs increased by about seven percent on average per year, with the largest increases in the last two years but decreases in certain years as well.
- Other component cost categories averaged only minor changes and contributed relatively small shares toward total operating costs over the six years.

Paratransit – The following is a brief summary of the TDA performance trend highlights over the six-year period of FY2012 through FY2017:

- For cost efficiency, there was an average annual decrease in the operating cost per hour of 1.6 percent, which amounted to an annual decrease of 4.2 percent in inflation adjusted dollars. A reduction in operating costs in FY2017 positively affected the cost per hour trend.
- The operating cost per passenger achieved an average annual decrease of 3.2 percent, when normalized in FY2012 dollars. The reduction in operating costs in FY2017 also positively affected this indicator.
- Passenger productivity showed somewhat negative results, with passengers per hour decreasing by 1.0 percent per year on average, and passengers per mile decreasing by 3.5 percent annually.
- The net result for employee productivity was an average annual decrease of two percent.

The following is a brief summary of the component operating costs trend highlights for paratransit between FY2012 and FY2017:

- While contributing relatively small portions to total operating costs, in-house labor and fringe benefits costs both decreased, but the former more substantially.
 - Purchased transportation costs fluctuated in certain years but remained relatively steady on average. They comprised between 53 and 69 percent of the total operating costs, with the lowest results in the middle years.
 - Casualty/liability costs increased by about four percent on average per year, with a 30 percent increase in FY2016 but decreases in certain years as well.
 - Other component cost categories each contributed shares of less than 15 percent of total operating costs over the six years.
- PUC Compliance – Vacaville 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.

- Status of Prior Audit Recommendations – There were no recommendations made in Vacaville’s prior performance audit.
- Functional Performance Indicator Trends

To further assess Vacaville’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 FY2015 and FY2017:

- Administrative costs decreased moderately to 24 percent of total operating costs in FY2016 and FY2017, and at the same time decreased by 12.5 percent to about \$12.50 per vehicle service hour.
- Marketing costs were relatively steady compared to total administrative costs, while decreasing slightly to \$0.05 per passenger trip in the last two years.
- The systemwide farebox recovery ratio declined from over 20 percent to 17.1 percent by FY2017.

Bus Service – The following is a brief summary of the bus service functional trend highlights between FY2015 and FY2017:

- Service Planning results showed the farebox recovery decreasing from 21.7 to 17.9 percent, and the TDA recovery ratio (reflecting local support and operating cost exclusions) decreasing to 18.3 percent. Consistently 97 percent or more vehicle miles and hours were in service, but passenger productivity fell by more than 12 percent with the notable ridership loss in FY2017.

- Operations results showed vehicle operations costs per service hour increasing by ten percent in FY2017, and increasing from 62 to 66 percent of total costs as well. There was some reduction in schedule adherence to 90 percent, an overall decrease in complaints received, and virtually no missed trips.
- Maintenance results showed maintenance costs between and 11 and 14 percent of total costs, vehicle maintenance costs per service mile below \$0.40 in the first and last years, a steady 22.2 percent vehicle spare ratio, but overall deterioration of the road call rate with some rebounding in FY2017.
- Safety results showed the rate of preventable accidents in the last two years almost double that of FY2015.

Paratransit – The following is a brief summary of the paratransit (Special Services) functional trend highlights between FY2015 and FY2017:

- Service Planning results showed the farebox recovery ratio increasing from 7.7 to more than eight percent, and the TDA recovery ratio (reflecting local support and operating cost exclusions) remaining over eight percent. Consistently about 90 percent vehicle miles and hours were in service, and passenger productivity was relatively steady.
- Operations results showed a modest decrease in vehicle operations costs per hour, with relatively steady levels when compared to total costs. Schedule adherence remained at about 95 percent. There was a significant increase in the rate of complaints, but very few complaints in absolute numbers. There were no missed trips and very low rates of cancellations, late cancellations and passenger no-shows. Two or three ADA trip denials were reported in each year.
- Maintenance results showed total maintenance costs increasing overall from nine to 11 percent of total costs, while vehicle maintenance costs per service mile increased overall from \$0.57 to \$0.62. The spare ratio was at 50 percent or higher in all years, while the road call rate worsened generally but improved significantly in FY2017 compared to the previous year.

- Safety results showed the preventable accident rate improved steadily and significantly.

Recommendations

1. TAKE STEPS TO REDUCE PREVENTABLE ACCIDENTS ON VACAVILLE'S BUS SERVICE.

[Reference Section: VI. Functional Performance Indicator Trends]

The rate of preventable accidents on the bus system increased noticeably through the audit period. It nearly doubled between FY2015 and FY2016, and remained at the higher level in FY2017. These results reflect three preventable accidents in FY2015 and six in each following year. Although the number of accidents is not inordinately high, the recent increases point to a potentially burgeoning safety issue which Vacaville should address in coordination with its operating contractor. Efforts should include additional strategies to improve operator training and enhance monitoring activities to ensure that safety issues are identified and corrected before they have a chance to escalate further.

2. ELIMINATE ALL ADA TRIP DENIALS ON THE SPECIAL SERVICES.

[Reference Section: VI. Functional Performance Indicator Trends]

There were a small number of ADA trip denials reported during the audit period on Vacaville's Special Services -- two or three in each year. While there does not appear to be any operational pattern or practice that significantly limits the availability of service to ADA paratransit eligible persons (as defined in the Code of Federal Regulations – 49 CFR 37.131), Vacaville should nonetheless strive to eliminate all ADA service denials.

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

Functional Performance Inputs - Systemwide (All Modes)

Data Item	FY2015	FY2016	FY2017	Source
Total Operating Costs	\$2,294,493	\$2,309,032	\$2,365,298	TDA Claims (FY17 "Current Adjusted")
Administrative Costs	\$634,968	\$556,335	\$563,756	TDA Claims (FY17 "Current Adjusted")
Vehicle Service Hours	44,240	44,315	44,871	Performance Reports/Summary
Marketing Costs	\$29,054	\$26,959	\$23,276	City Staff, Lamar Advertising
Unlinked Passenger Trips	511,932	518,994	458,222	Performance Reports/Summary
Farebox Revenue	\$462,323	\$445,864	\$403,888	Performance Reports/Summary

Functional Performance Inputs – Bus Service

Data Item	FY2015	FY2016	FY2017	Source
Vehicle Service Miles	505,092	502,827	504,444	Performance Reports/Summary
Total Vehicle Miles	519,486	521,437	521,943	Performance Reports
Vehicle Service Hours	36,719	36,864	37,059	Performance Reports/Summary
Total Vehicle Hours	37,448	37,615	37,869	Performance Reports
Unlinked Passenger Trips	485,578	492,754	432,670	Performance Reports/Summary
Farebox Revenue	\$377,436	\$361,855	\$326,292	Performance Reports/Summary
Total Operating Costs	\$1,739,936	\$1,744,591	\$1,825,691	TDA Claims (FY17 "Current Adjusted")
Vehicle Operations Costs	\$1,091,308	\$1,083,305	\$1,207,576	TDA Claims (FY17 "Current Adjusted")
Local Support (a)	\$0	\$0	\$0	City Staff (no qualifying exemptions)
TDA Oper. Cost Exclusions - PUC 99247 (b)	\$0	\$0	\$0	City Staff (no qualifying exemptions)
TDA Oper. Cost Exclusions - PUC 99268.17 (c)	\$0	\$0	\$38,676	MTC 4th Qtr. Reports (d)
Trips On-Time	37385	37514	36826	City Staff Sampling Observations
Total Trips	40,635	40,776	40,917	Contractor
Complaints	4	9	3	Contractor Monthly Reports
Missed Trips	0	0	4	Contractor Monthly Reports
Vehicle Maintenance Costs	\$197,693	\$255,095	\$191,405	TDA Claims (FY17 "Current Adjusted")
Non-Vehicle Maintenance Costs	\$0	\$0	\$0	TDA Claims (FY17 "Current Adjusted")
Spare Vehicles (Total less Maximum Service)	4	4	4	Fleet Inventory, Operations Staff
Total Vehicles	18	18	18	Fleet Inventory, Annual NTD Report
Road Calls	12	21	16	City Staff
Preventable Accidents	3	6	6	Contractor Monthly Reports

(a) Local Support includes the following (USOA revenue class in parentheses):

- Auxiliary transportation revenue (406)
- Taxes directly levied (408)
- Local cash grants and reimbursements (409)
- Local special fare assistance (410)
- Subsidy from other sectors of operation (440)
- Other non-federal/non-state grant funds or other revenues

(b) Operating expense object classes exclusive of the following pursuant to PUC Section 99247:

- depreciation and amortization expenses
- subsidies for commuter rail services operated on railroad lines under the jurisdiction of the Federal Railroad Administration
- costs for providing charter services
- vehicle lease costs
- principal and interest payments on capital projects funded with certificates of participation

(c) Operating expense object class exclusions pursuant to PUC Section 99268.17:

- additional operating costs for federally required ADA paratransit service that exceed prior year costs (CPI adjusted)
- cost increases beyond the CPI change for: fuel; alternative fuel programs; power (including electricity); insurance premiums/liability claims payouts; state and federal mandates
- start-up costs for new services (not more than two years)

(d) Reflects fuel cost increase beyond CPI

Functional Performance Inputs – Paratransit

Data Item	FY2015	FY2016	FY2017	Source
Vehicle Service Miles	63,371	67,122	72,454	Performance Reports/Summary
Total Vehicle Miles	72,071	75,738	81,225	Performance Reports
Vehicle Service Hours	5,280	5,533	5,772	Performance Reports/Summary
Total Vehicle Hours	5,852	6,063	6,381	Performance Reports
Unlinked Passenger Trips	13,880	16,269	16,340	Performance Reports/Summary
Farebox Revenue	\$30,017	\$34,999	\$32,756	Performance Reports/Summary
Total Operating Costs	\$391,247	\$420,742	\$401,047	TDA Claims (FY17 "Current Adjusted")
Vehicle Operations Costs	\$225,724	\$237,909	\$239,532	TDA Claims (FY17 "Current Adjusted")
Local Support (a)	\$0	\$0	\$0	City staff (no qualifying exemptions)
TDA Oper. Cost Exclusions - PUC 99247 (b)	\$0	\$0	\$0	City staff (no qualifying exemptions)
TDA Oper. Cost Exclusions - PUC 99268.17 (c)	\$33,438	\$28,249	\$0	MTC 4th Quarter Reports (d)
Trips On-Time	13,108	15,456	15,523	City staff sampling observations
Total Trips	13,945	16,269	16,340	Contractor
Complaints	3	4	5	Contractor Monthly Reports
Missed Trips	0	0	0	Contractor DAR Logs
Total ADA Trips	13,880	16,269	16,340	City Coach Performance Data Log
ADA Trip Denials	3	2	3	Contractor DAR Logs
Trip Cancellations	97	84	98	Contractor DAR Logs
Late Trip Cancellations	14	25	15	Contractor DAR Logs
No Shows	26	38	25	Contractor DAR Logs
Vehicle Maintenance Costs	\$36,352	\$58,038	\$44,696	TDA Claims (FY17 "Current Adjusted")
Non-Vehicle Maintenance Costs	\$0	\$0	\$0	TDA Claims (FY17 "Current Adjusted")
Spare Vehicles (Total less Maximum Service)	4	3	3	Fleet Inventory, Operations Staff
Total Vehicles	7	6	6	Fleet Inventory
Road Calls	3	11	4	City Staff
Preventable Accidents	3	2	1	Contractor Monthly Reports

(a) Local Support includes the following (USOA revenue class in parentheses):

- Auxiliary transportation revenue (406)
- Taxes directly levied (408)
- Local cash grants and reimbursements (409)
- Local special fare assistance (410)
- Subsidy from other sectors of operation (440)
- Other non-federal/non-state grant funds or other revenues

(b) Operating expense object classes exclusive of the following pursuant to PUC Section 99247:

- depreciation and amortization expenses
- subsidies for commuter rail services operated on railroad lines under the jurisdiction of the Federal Railroad Administration
- costs for providing charter services
- vehicle lease costs
- principal and interest payments on capital projects funded with certificates of participation

(c) Operating expense object class exclusions pursuant to PUC Section 99268.17:

- additional operating costs for federally required ADA paratransit service that exceed prior year costs (CPI adjusted)
- cost increases beyond the CPI change for: fuel; alternative fuel programs; power (including electricity); insurance premiums/liability claims payouts; state and federal mandates
- start-up costs for new services (not more than two years)

(d) Reflects fuel cost increase beyond CPI (FY2015), and additional operating costs for federally required ADA paratransit (FY2015 & FY2016)