

San Diego Association of Governments

FY10-FY12 Triennial Performance Audit of the Metropolitan Transit System (MTS)

FINAL AUDIT REPORT



In Association With
MATT & ASSOCIATES

July 2, 2013

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
SECTION I: INTRODUCTION.....	3
SECTION II: COMPLIANCE REVIEW AND PRIOR AUDIT RECOMMENDATIONS.....	9
SECTION III: MANAGEMENT CONTROL AND REPORTING	16
SECTION IV: PERFORMANCE TRENDS AND FUNCTIONAL REVIEW	18
SECTION V: CONCLUSIONS AND RECOMMENDATIONS.....	40

EXECUTIVE SUMMARY

Transit operators that receive Transportation Development Act (TDA) funds are required to undergo triennial performance audits in the State of California. Triennial performance audits are a requirement for the continued receipt of State TDA funds for public transit under California Public Utilities Code (PUC) Section 99246. The performance audit is administered by the San Diego Association of Governments (SANDAG) and prepared by CH2M HILL. This report represents the State-mandated performance audit of the San Diego Metropolitan Transit System (MTS) for Fiscal Years 2010, 2011, and 2012, the period from July 1, 2009 through June 30, 2012.

The TDA triennial performance audit of MTS includes evaluations of:

- Compliance with pertinent sections of the Public Utilities Code
- Progress to implement prior performance audit recommendations
- Agency goals and objectives and performance monitoring systems
- Systemwide and functional area performance trends.

The objective of the performance audit is to assess compliance with PUC requirements, identify significant achievements as well as opportunities for improvement, and develop recommendations for short- and long-term efficiency and effectiveness improvements.

Several audit period accomplishments and challenges were noted in spite of both funding challenges and the economic downturn. Major accomplishments include:

- Major reports to labor contracts
- Installation of cameras on buses and Trolleys
- Continued progress on the Trolley Renewal Project
- Expansion of the *SuperLoop* bus route
- Continued progress on the East County and South Bay maintenance facility improvements
- Purchase of Copley Park maintenance facility for combined operations of ADA and minibus service

MTS is in compliance with Public Utilities Code (PUC) requirements and the implementation of prior audit recommendations:

- Compliance with PUC Requirements: MTS is in compliance with PUC requirements.
- Progress to Implement Prior Audit Recommendations: MTS has taken appropriate steps to address the prior audit recommendations. MTS in coordination with the City of Chula Vista developed practices to improve the data accuracy of the Chula Vista State Controller Reports submitted by the City. MTS worked with SANDAG to revise the procedures to collect and report performance data on B-10 forms to improve data accuracy. MTS increased cost efficiency of its Trolley service by containing operating costs. In addition, the Trolley Renewal Project that started construction in Fall 2010 has also further improved operating efficiency of MTS Trolley service.

Performance indicator trends show the following:

- Operating cost per service hour, a measure of cost efficiency, increased by 11.1% during the audit period from \$87.49 in FY09 to \$97.21 in FY12. This was roughly double the 5.6% rate of inflation. The trend is a result of a 6.1% growth in operating costs and a 4.5% reduction in vehicle service hours during the audit period. The material growth in MTS expenses is primarily due to increases in the costs of the self-funded San Diego Transit Pension Plan. These costs also include the early pay-down of pension related debt (\$5.2 million). The pension percentage rate also increased from 14.3% in FY09 to 28.1% in FY12 primarily due to more conservative changes

in the actuarial assumptions and recognition of prior period investment losses. Excluding these increased pension expenses, the total operating costs would be significantly lower. MTS has begun the process of mitigating these inflationary costs by instituting employee contributions for all employees, and finalizing agreements with San Diego Transit labor unions that include moving to a defined contribution plan for new union employees.

- Operating cost per passenger, a measure of cost effectiveness, increased by 13.0% from \$2.24 in FY09 to \$2.53 in FY12. This was due to a 6.1% increase in operating costs and a 6.1% loss in ridership. The loss of ridership is primarily the result of the economic recession, associated service reductions, and discrepancies in the passenger estimation program for San Diego Trolley.
- Service productivity remained relatively stable during the audit period. Passengers per service hour decreased by 1.6% while passengers per service mile increased by 0.1%. Despite the loss of ridership, MTS was able to strategically reduce service while minimizing impacts on ridership. Within the audit period, MTS has installed Automatic Passenger Counters (APCs) on its trolleys and is seeing an increase in ridership compared to the passenger forecast method currently used by SANDAG. MTS and SANDAG are working on obtaining approval from the FTA for use of APCs in trolley passenger counting, which MTS believes will improve these relative statistics.
- Service hours per employee FTE, a measure of labor productivity, increased by 3.0% during the audit period from 1,042 in FY09 to 1,074 in FY12. This trend is a result of a 4.5% decrease in vehicle service hours and a 7.3% decrease in employee FTEs.
- The MTS systemwide farebox recovery ratio fluctuated during the audit period, moving from 43.1% in FY09 to 39.9% in FY10, and moving back up to 41.6% in FY12. MTS farebox recovery during the audit period was significantly higher than the farebox recovery requirement of 31.9%.
- The average fare per passenger trip increased by 6.2% during the audit period, from \$0.96 to \$1.02. This reflects the changes in fare policies that MTS made. In 2007, SANDAG and MTS approved a phased increase in fares to make up for low sales tax revenue and the State of California's reallocation of transit dollars. MTS implemented two fare changes between FY09 and FY12. The first was implemented in January 2009 and increased the local bus cash fare from \$2 to \$2.25 and the costs for non-premium monthly passes. The second was implemented in July 2009 and increased the downtown zone trolley fare from \$1.25 to \$2.25, the shuttle bus fare from \$1 to \$2.25, and the costs for the premium day pass and all monthly passes. To reduce resale of day passes, as of November 2012, MTS offers \$5 day passes at rail stations exclusively on day pass Compass cards that cost \$2 initially. (Paper passes are still distributed on buses for \$7.)
- The net cost per passenger trip increased by 13.1%, from \$1.27 in FY09 to \$1.44 in FY12, exceeding inflation of 5.6% during the audit period.

One recommendation is offered for MTS' consideration:

Recommendation 1: MTS should identify ways to maintain and improve the cost efficiency of MTS directly operated bus service.

SECTION I: INTRODUCTION

The TDA triennial performance audit of the San Diego Metropolitan Transit System (MTS) follows state guidelines. Triennial performance audits are a requirement for the continued receipt of State Transportation Development Act (TDA) funds for public transit under California Public Utilities Code (PUC) Section 99246. The San Diego Association of Governments (SANDAG) is responsible for administering the conduct of performance audits in the San Diego Region. SANDAG has retained CH2M HILL to conduct the performance audit of MTS. This report represents the State-mandated performance audit of MTS for Fiscal Years 2010, 2011, and 2012, the period from July 1, 2009 through June 30, 2012.

The TDA triennial performance audit of MTS includes evaluations of:

- Compliance with pertinent sections of the Public Utilities Code
- Progress to implement prior performance audit recommendations
- System wide performance trends for efficiency and effectiveness
- Functional area performance results
- Opportunities to improve the efficiency and effectiveness of operations.

The objective of the performance audit is to identify significant achievements as well as opportunities for improvements, and to provide recommendations for short- and long-term efficiency and effectiveness improvements.

The methodology for the MTS audit included site visits, interview, and data collection and analysis. Interviews were conducted with personnel responsible for the management and oversight of MTS services:

- Chief Executive Officer
- Chief Financial Officer
- Chief Operating Officer, Rail
- Chief Operating Officer, Transit Services
- Chief Technology Officer
- Chief of Staff
- Director of Human Resources and Labor Relations
- Director of Marketing and Communications
- MTS Chief of Police
- General Counsel
- Internal Auditor
- Budget Manager
- Director of Financial Planning & Analysis
- Procurement Manager
- Manager of Human Resources
- Manager of Planning
- Manager of Capital Projects, Rail
- Manager of Capital Projects, Transit Services
- Superintendent of Transportation, Rail

- Superintendent of Light Rail Vehicle Maintenance
- Schedules/Operations Analyst, Rail
- Director of Transportation, Transit Services
- Director of Maintenance, Transit Services
- Contract Services Administrators, Transit Services
- Manager of Passenger Services, Transit Services
- Manager of Training, Transit Services
- Quality Assurance Supervisor
- Senior Transportation Planner
- Associate Transportation Planner

Background documents and other written information including those identified in Exhibit I-1 were collected and reviewed:

Exhibit I-1: MTS Background Documents and Written Information Reviewed

Organization and staffing charts	National Transit Database Reports, FY10-FY12	Data provided by operating units to support specific analyses
Labor agreements in effect during the audit period	State Controller Reports, FY10-FY12	Performance Objective Plans, FY10-FY12
Current MTS Policies and Procedures	Comprehensive Annual Financial Reports, FY10-FY12	Annual Performance Monitoring Reports, FY10-FY12
FY07-FY09 performance audit report and responses to recommendations	Adopted Budgets, FY10-FY12	Service maps and brochures
Form C Report, FY09-FY12	CHP Transit Operator Compliance Certificates	MTS website: www.sdmts.com SANDAG website: www.sandag.org

The audit team also:

- Conducted on-site interviews with MTS management and staff responsible for administering, managing, and operating the transit system, including staff from MTS Bus Operations, MTS Rail Operations, and other functions (e.g., marketing, finance, planning, human resources, and legal).
- Assessed compliance with applicable Public Utilities Code Sections, including progress and performance results relative to prior audit recommendations.
- Compiled and analyzed performance indicator trend information for the system and the individual operations, as well as for major functional areas.

I.1. Overview

MTS operates motorbus, light rail, and demand response services throughout the southern portion of the urbanized areas of San Diego County, as well as rural parts of east San Diego County not served by the North County Transit District (NCTD). The name MTS began being used in 2005, reflecting a name change of the former Metropolitan Transit Development Board (MTDB). The MTS transit system includes three light rail lines with 53 stations and 93 fixed bus routes with complementary ADA paratransit (MTS Access). MTS operates more than 2.2 million vehicle service hours and serves more than 86.5 million passenger trips annually in a total service area of about 3,240 square miles. The service area includes the cities of San Diego, Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, Santee and a portion of the unincorporated area of San Diego County.

MTS responsibilities include service planning, performance monitoring and analysis, and the activities required to administer, fund and deliver transit services within this service area either directly or through contracts with other service providers. These services include:

- Directly Operated Bus
- Trolley
- Contracted Fixed Route
- Commuter Express
- Rural Service
- Chula Vista Transit
- General Public Demand Response - Direct Access to Regional Transit (DART)
- Americans with Disabilities Act (ADA) Demand Response Service.

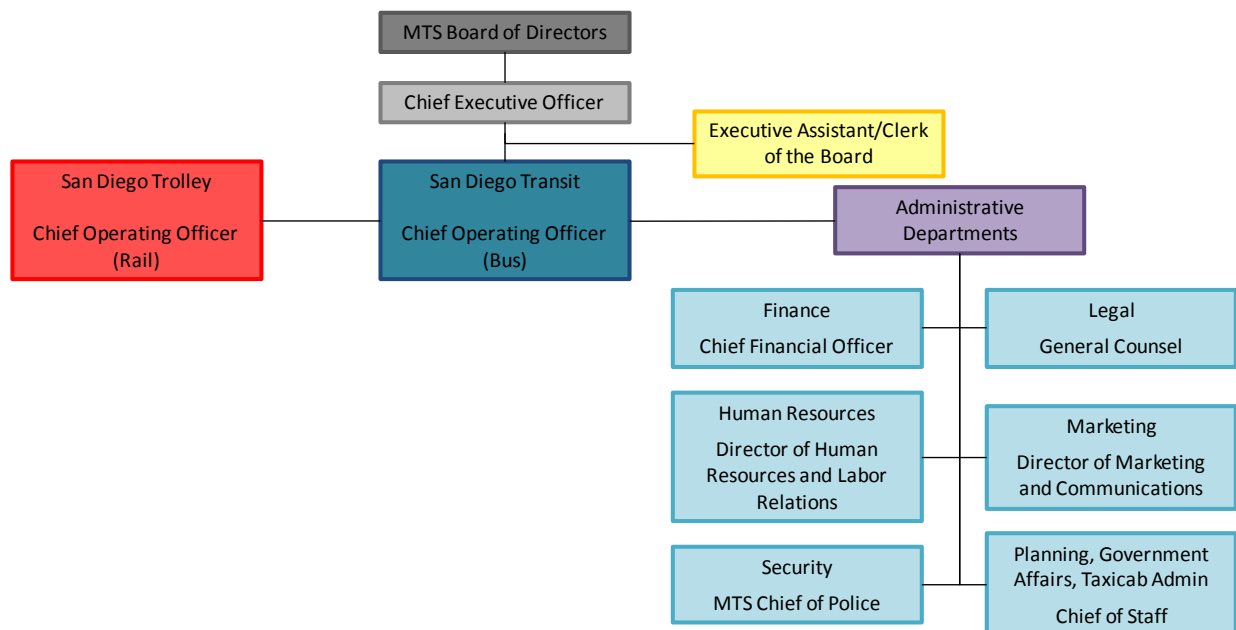
Each of these services that MTS provides is described in Section IV: Performance Trends and Functional Review. The section provides TDA performance indicators for the MTS system as a whole, as well as performance indicators for each service type individually.

MTS is governed by a 15-member Board of Directors that includes:

- Four appointed from the San Diego City Council
- Nine total (one each from the City Councils of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, and Santee)
- One from the San Diego County Board of Supervisors
- One resident of San Diego County selected by other Board members to serve as the Board Chair.

Exhibit I-2 shows the high level MTS organization chart. San Diego Transit includes all motorbus (directly operated and contracted) and demand response services. San Diego Trolley is the light rail system.

Exhibit I-2: MTS Organization Chart

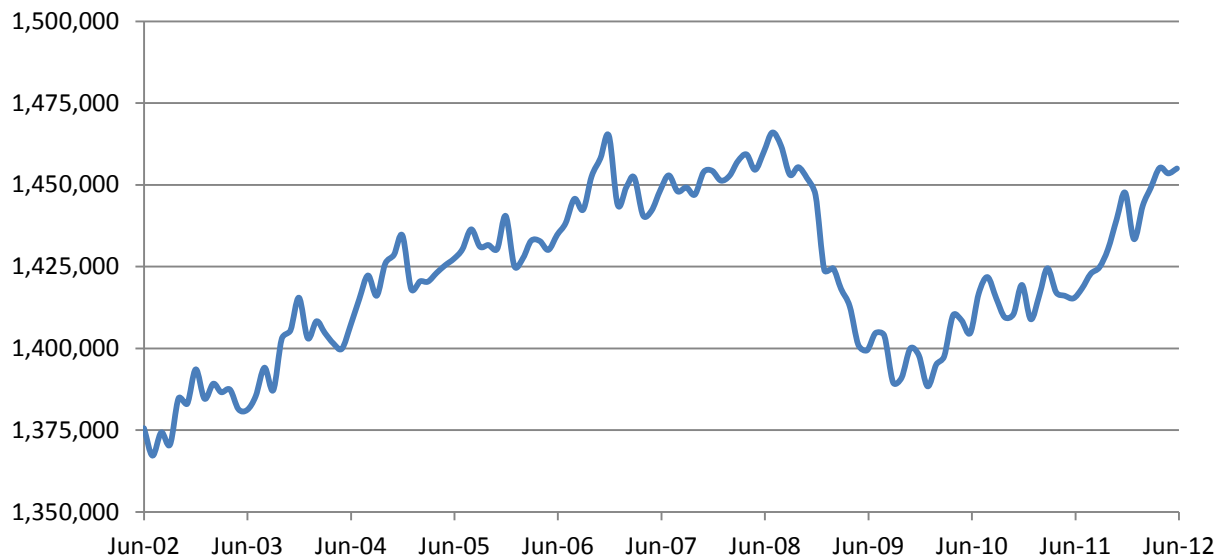


The MTS primary fare types as of June 30, 2012, are the cash fare (\$2.25 for local, urban and shuttle routes, \$2.50 for the Trolley and express routes, \$5.00 for premium express routes, and \$5 to \$10 for rural routes); the Day Pass (\$5.00 for most services), and the Monthly Pass (\$72 for most services). Discounts are applicable for seniors and persons with disabilities, and special fare products for college students, youth, social service agencies, stadium services, and class trips. SANDAG is responsible for fare policy and fare setting in San Diego County.

I.2. Accomplishments and Challenges

During the audit period, the economic recession continued to impact the San Diego region. Employment slowly increased from its lowest point during the audit period of 1,388,400 civilian jobs in January 2010 to a high of 1,455,200 civilian jobs in April 2012 (getting close to pre-recession employment levels). The high unemployment rates in San Diego County during the audit period negatively impacted ridership. As the economy has improved, MTS ridership has continued to improve.

Exhibit I-3: San Diego County Employment



Source: Employment Development Department San Diego Carlsbad San Marcos MSA (San Diego County) Industry Employment & Labor Force - by MONTH, March 2013

Increasing energy and fuel costs have impacted operating costs. MTS has opted into the California ISO program to purchase electricity from the state’s wholesale transmission grid, resulting in energy cost savings. MTS continues to transition to compressed natural gas (CNG) for its bus fleets. The retrofit of the East County maintenance base will enable MTS to eliminate its diesel bus fleet. MTS has negotiated with BP to receive discounts on CNG gas by using credits for green, renewal gas.

The reduction of transit funding at both the state and local levels, due to the recession’s impact on sales tax revenues, was indicated by several MTS managers and staff as being the most significant challenge faced by the agency during the audit period. MTS has had to reduce service levels, particularly on the weekends, and take other steps to provide service more cost effectively including reductions in personnel. MTS was successful in obtaining funding from sources such as the Federal stimulus package during the audit period and is currently looking at ways to increase revenue from sources that include advertising and joint development.

MTS instituted major reforms to four labor contracts, including maintenance and transportation contracts during the audit period resulting in new three year contracts with new overtime, vacation/sick time work rules to improve efficiency. Employees now receive overtime pay for hours worked over 40 hours in a week instead of after 8 hours in a day, which has resulted in decreased absenteeism. One other major

reform to the San Diego Transit labor contracts is the implementation of a defined contribution program for all new employees and the employees' monetary contributions toward their existing pension plan.

MTS continues to strive to improve passenger safety and security. Passenger safety and security is a challenge due to gang-related activity in some service areas. MTS is spending \$300,000-400,000 annually to put security officers on all Blue and Orange line trains and on Green Line trains strategically after 9 PM. The continued installation of cameras on buses and trains has led to an increase in passenger safety and satisfaction. Cameras have helped diffuse situations, validate driver reports, and support police activities. Train teams, consisting of a compliance inspector (public officer) and security officer, are used to address crimes on trains and at most active stations.

MTS Trolley

MTS continued the Trolley Renewal Project. MTS completed the catenary replacement for the Trolley Blue Line, track & station improvements for the Green Line Extension and the Orange Line, and contracts as part of the Low Floor Trolley Renewal Program. MTS started operating 57 new low-floor Trolley cars and launched a new operating plan for the Green Line, which provides a single seat ride from Santee in East County San Diego to the 12th & Imperial Transit Center (Downtown San Diego) via the Bayside after the end of the audit period.

MTS is taking advantage of improvements in the trolley right-of-way to generate additional revenue through land leases from Transit Oriented Development (TOD) projects. The Grossmont station TOD project, which includes a parking structure and 527 apartment units, was completed during the audit period. It will yield approximately \$350,000 in monthly income from lease payments.

MTS installed Automatic Passenger Counters (APCs) on its trolleys and is seeing an increase in ridership from the passenger forecast method currently used by SANDAG. MTS and SANDAG are working on obtaining approval from the FTA for use of APCs in passenger forecasting. During the audit period, MTS implemented real time texting for next bus information, which is also available on Google Transit. The site receives over 2,500 hits daily.

MTS is working with SANDAG on the Mid-Coast LRT project, which is an extension of the Trolley system north to UC San Diego and University Towne Center. MTS has been working closely with SANDAG to shift Compass Card operations to MTS, which will occur in summer 2013. MTS also implemented Closed Circuit Television (CCTV) on trolleys and buses during the audit period to improve security.

MTS Bus

MTS launched the *SuperLoop* bus service, which is a circular transit route that serves the North University City area of San Diego in June 2009, and expanded service to the communities east of Genesee Ave in June 2012. Installation of bus stations and roadway/traffic signal improvements were ongoing during the audit period and due to be completed in 2013.

East County and South Bay maintenance facility improvements and modifications continued.

MTS ACCESS

In February 2011, MTS purchased Copley Park for ADA and minibus service in Kearny Mesa for \$13 million, taking advantage of the soft real estate market. MTS performed a few modifications to the former RV sales site, such as the installation of a fueling station and a call center. MTS also combined its ADA and minibus contracts at the site. These actions reduced the cost to operate the ADA service by \$7.3 million over the seven year term of that contract, and the minibus service by \$4.2 million over the ten year term of that contract. In addition, the central location of the facility with direct freeway access to SR-163, I-805 and I-15 resulted in approximately \$0.75 million annual operating cost savings due to reduced deadhead mileage.

I.3. Report Outline

The remainder of the performance audit report is organized into four sections:

- II. Compliance Review: Assesses MTS compliance with specific PUC requirements and discusses the status of prior audit recommendations.
- III. Management Control and Reporting: Examines the management structure and performance monitoring systems in place to help reach MTS goals and objectives.
- IV. Performance Trends and Functional Review: Examines system wide performance trends as well as trends in the major functional areas: operations, maintenance, and planning and administration.
- V. Conclusions and Recommendations: Outlines recommendations and potential implementation strategies for MTS to capitalize on improvement opportunities.

SECTION II: COMPLIANCE REVIEW AND PRIOR AUDIT RECOMMENDATIONS

The compliance review assesses compliance with PUC requirements and implementation of prior audit recommendations. Activities conducted by MTS and each of the MTS service providers to comply with TDA requirements are described in this section. TDA performance indicator results and trends are discussed in Section IV – Performance Trends and Functional Review.

PUC requirements verified as part of this performance audit include the compliance requirements for transit operators stipulated in the California Department of Transportation TDA Performance Audit Guidebook for Transit Operators and Regional Transportation Planning Entities (2008) and TDA Statutes and California Codes of Regulations (2009).

With the consolidation of operations in the MTS service area, some of the compliance findings have been made for MTS as a whole. Where appropriate (e.g., where operators continue to file separate financial audits and State Controller reports), findings have been made for particular MTS services. Compliance is assessed at three levels:

- Fully compliant.
- Partially compliant, with additional actions required to achieve full compliance.
- Non-compliant or not applicable.

Compliance to measure progress towards implementing prior audit recommendations has been measured in three categories:

- Fully implemented.
- Partially implemented but further progress is warranted.
- Not implemented or not applicable.

II.1. Compliance Review

MTS and its operators are in compliance with applicable PUC and CAC requirements for operators.

Code Reference	Operator Compliance Requirements, Findings, Verification	
PUC Section 99243	Requirement – Uniform System of Accounts and Records: Annual reports based on the Uniform System of Accounts and Records established by the State Controller are submitted to the RTPA within 90 days of the end of the fiscal year (September 30) or 110 days if submitted electronically (approx. October 20).	
	Findings	State Controller Report Submittal Dates
	MTS Bus: fully compliant Source: State Controller Annual Report All reports were submitted electronically, so the 110-day timeframe applied.	MTS Bus: FY10: 14-October-2010 FY11: 18-October-2011 FY12: 19-October-2012
	MTS Contracted Bus and Demand Response: fully compliant Source: State Controller Annual Report All reports were submitted electronically, so the 110-day timeframe applied.	MTS Contracted Bus: FY10: 14-October-2010 FY11: 17-October-2011 FY12: 18-October-2012

Code Reference	Operator Compliance Requirements, Findings, Verification														
	<p>MTS Rail: fully compliant Source: State Controller Annual Report All reports were submitted electronically, so the 110-day timeframe applied.</p>		<p>MTS Rail: FY10: 14-October-2010 FY11: 18-October-2011 FY12: 17-October-2012</p>												
	<p>Chula Vista Transit: partially compliant¹ Source: State Controller Annual Report Reports for FY10 and FY11 were submitted electronically, so the 110-day timeframe applied. The FY12 report was submitted after the 110-day time frame. No extension was requested.</p>		<p>Chula Vista Transit: FY10: 19-October-2010 FY11: 18-October-2011 FY12: 29-October-2012</p>												
PUC Section 99245	<p>Requirement – Annual Fiscal Audit: Certified annual fiscal and compliance audits are submitted to the RTPA and State Controller within 180 days of the end of the fiscal year (December 31), or receive 90 day extension (March 31).</p>														
	Findings		Annual Fiscal Audit Submittal Dates												
	<p>MTS: fully compliant Source: Annual fiscal audits were included as part of the Comprehensive Annual Financial Report.</p>		<p>MTS: FY10: letter of transmittal dated 30-November-2010 FY11: letter of transmittal dated 30- November -2011 FY12: letter of transmittal dated 15- November -2012</p>												
	<p>Chula Vista Transit: partially compliant² Reports for FY11 and FY12 were submitted within 180 days. The FY10 report was submitted after the 180-day time frame. No extension was requested.</p>		<p>Chula Vista Transit: FY10: auditor letter dated 16-March-2011 FY11: auditor letter dated 15-December -2011 FY12: auditor letter dated 17-December-2012</p>												
PUC Section 99251	<p>Requirement – CHP Certifications: Following inspection of the operator’s terminal, CHP has certified operator's compliance with Vehicle Code 1808.1 within 13 months prior to each TDA claim submittal.</p>														
	Findings		CHP Certification Dates												
	<p>MTS Bus: fully compliant</p>		<p>MTS Bus:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>FY10</th> <th>FY11</th> <th>FY12</th> </tr> </thead> <tbody> <tr> <td>Imperial</td> <td>29-May-08</td> <td>2-Apr-09</td> <td>10-May-10</td> </tr> <tr> <td>Kearny Mesa</td> <td>27-May-08</td> <td>23-Jun-09</td> <td>04-May-10</td> </tr> </tbody> </table>			FY10	FY11	FY12	Imperial	29-May-08	2-Apr-09	10-May-10	Kearny Mesa	27-May-08	23-Jun-09
	FY10	FY11	FY12												
Imperial	29-May-08	2-Apr-09	10-May-10												
Kearny Mesa	27-May-08	23-Jun-09	04-May-10												

¹ The City of Chula Vista is responsible for submitting financial statements to the State of California. MTS does not prepare, nor submit State Controller Annual Report(s) for the City of Chula Vista.

² The City of Chula Vista is responsible for submitting Annual Fiscal Audit(s) to the State of California. MTS does not prepare, nor submit Annual Fiscal Audit(s) for the City of Chula Vista.

Code Reference	Operator Compliance Requirements, Findings, Verification																											
	MTS Contracted Bus and Demand Response: fully compliant Source: CHP Transit Operator Compliance Certificates		MTS Contracted Bus: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>FY10</th> <th>FY11</th> <th>FY12</th> </tr> </thead> <tbody> <tr> <td>First Transit, Copley Park</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> <td style="text-align: center;">5-Oct-11*</td> </tr> <tr> <td>First Transit, El Cajon</td> <td style="text-align: center;">23-Jan-08</td> <td style="text-align: center;">5-Aug-09</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Southland, Rockwell</td> <td style="text-align: center;">31-Jan-08</td> <td style="text-align: center;">22-Apr-09</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Veolia, East County</td> <td style="text-align: center;">21-Aug-08</td> <td style="text-align: center;">19-Aug-09</td> <td style="text-align: center;">29-Sep-10</td> </tr> <tr> <td>Veolia, South Bay</td> <td style="text-align: center;">6-Nov-08</td> <td style="text-align: center;">6-Nov-09</td> <td style="text-align: center;">12-Nov-10</td> </tr> </tbody> </table>			FY10	FY11	FY12	First Transit, Copley Park	-	-	5-Oct-11*	First Transit, El Cajon	23-Jan-08	5-Aug-09	-	Southland, Rockwell	31-Jan-08	22-Apr-09	-	Veolia, East County	21-Aug-08	19-Aug-09	29-Sep-10	Veolia, South Bay	6-Nov-08	6-Nov-09	12-Nov-10
		FY10	FY11	FY12																								
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Southland, Rockwell	31-Jan-08	22-Apr-09	-																									
Veolia, East County	21-Aug-08	19-Aug-09	29-Sep-10																									
Veolia, South Bay	6-Nov-08	6-Nov-09	12-Nov-10																									
MTS Rail: not applicable		MTS Rail: Vehicle Code 1801.1 does not apply to rail operators.																										
Chula Vista Transit: fully compliant Source: CHP Transit Operator Compliance Certificate		Chula Vista Transit: FY10: 19-November-2008 FY11: 19-November-2009 FY12: 18-November-2010																										
PUC Section 99261	Requirement – Transportation Planning Agency Regulations: Claims for TDA funds are submitted in compliance with RTPA's rules and regulations for such claims.																											
	Findings		Verification																									
Fully compliant – MTS submits its TDA claims and proper documentation to SANDAG each year.																												
PUC Section 99266	Requirement – Budget Changes: Operating budget has not increased by more than 15% over the preceding year unless reasonable justification has been provided.																											
	Findings		Percent Growth in Budget																									
	MTS Bus: fully compliant Source: State Controller Reports, minus depreciation		MTS Bus: FY10: +14.2% FY11: +0.4% FY12: - 3.8%																									
	MTS Contracted Bus and Demand Response: fully compliant Source: State Controller Reports, minus depreciation		MTS Contracted Bus: FY10: - 2.7% FY11: +2.6% FY12: +2.7%																									
MTS Rail: fully compliant Source: State Controller Reports, minus depreciation		MTS Rail: FY10: +1.1% FY11: - 0.9% FY12: +5.0%																										

Code Reference	Operator Compliance Requirements, Findings, Verification													
	<p>Chula Vista Transit: fully compliant Source: State Controller Reports, minus depreciation</p>	<p>Chula Vista Transit: FY10: - 7.8% FY11: - 7.3% FY12: - 0.6%</p>												
PUC Section 99247	<p>Requirement – Performance Measures Definitions: The operator’s definition of performance measures are consistent with Public Utilities Code Section 99247, including (a) operating cost, (b) operating cost per passenger, (c) operating cost per vehicle service hour, (d) passengers per vehicle service hour, (e) passengers per vehicle service mile, (f) total passengers, (g) transit vehicle, (h) vehicle service hours, (i) vehicle service miles, and (j) vehicle service hours per employee.</p>													
	Findings	Verification												
	<p>Fully compliant</p>	<p>MTS operating statistics are collected and performance measures are calculated in accordance with PUC requirements.</p>												
PUC, Sections 99268.2 99268.3 99268.4 99268.5 99269	<p>Requirement – Revenue Ratios: Operator has maintained a ratio of fare revenues to operating costs at least equal to: 20% for urban areas, 10% for non-urban areas, 10% for services for elderly and handicapped persons. For MTS operators, the systemwide ratio shall be not less than the ratio achieved in FY79 (31.9%).</p>													
	Findings	Farebox Recovery Ratios												
	<p>MTS Systemwide: fully compliant Exceeded the systemwide 31.9% ratio annually.</p>	<p>FY10: 39.9% FY11: 42.4% FY12: 41.6%</p>												
	<p>MTS Bus: fully compliant Exceeded the 20% urban area ratio annually.</p>	<p>MTS Bus: FY10: 28.5% FY11: 32.1% FY12: 31.2%</p>												
	<p>MTS Contracted Bus and Demand Response: fully compliant Exceeded the 20% urban area ratio annually; exceeded the 10% rural area ratio annually.</p>	<p>MTS Contracted Bus Operations:</p> <table border="0" style="width: 100%;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>Urban</u></th> <th style="text-align: center;"><u>Rural</u></th> </tr> </thead> <tbody> <tr> <td>FY10:</td> <td style="text-align: center;">48.7%</td> <td style="text-align: center;">14.6%</td> </tr> <tr> <td>FY11:</td> <td style="text-align: center;">48.4%</td> <td style="text-align: center;">18.7%</td> </tr> <tr> <td>FY12:</td> <td style="text-align: center;">50.6%</td> <td style="text-align: center;">10.6%</td> </tr> </tbody> </table>		<u>Urban</u>	<u>Rural</u>	FY10:	48.7%	14.6%	FY11:	48.4%	18.7%	FY12:	50.6%	10.6%
		<u>Urban</u>	<u>Rural</u>											
	FY10:	48.7%	14.6%											
FY11:	48.4%	18.7%												
FY12:	50.6%	10.6%												
<p>MTS Rail: fully compliant Exceeded the 20% urban area ratio annually.</p>	<p>MTS Rail: FY10: 54.3% FY11: 57.4% FY12: 55.6%</p>													
<p>Chula Vista Transit: fully compliant Exceeded the 20% urban area ratio annually.</p>	<p>Chula Vista Transit: FY10: 49.7% FY11: 47.4% FY12: 44.5%</p>													

Code Reference	Operator Compliance Requirements, Findings, Verification	
PUC Section 99271	Requirement – Employee Retirement System: The current cost of the operator's retirement system is fully funded with respect to the officers and employees of its public transportation system, or the operator is implementing an RTPA-approved plan to fully fund the retirement system within 40 years.	
	Findings	Verification
	MTS: fully compliant	Comprehensive Annual Financial Report
	Chula Vista Transit: fully compliant	Chula Vista is part of PERS
CAC Section 6754(a)(3)	Required Findings: If the operator received STA funds, the operator makes full use of funds available from the Federal Transit Administration before TDA claims are granted.	
	Findings	Verification
	MTS: fully compliant	MTS utilizes federal funds that are available to the agency, as reported in the annual financial reports.
	Chula Vista Transit: Not applicable; CVT did not receive FTA funds	Note: Refer to SANDAG TDA Allocation Resolutions

II.2. Prior Audit Recommendations

MTS has taken appropriate steps to implement prior audit recommendations:

Prior Audit Recommendation #1: MTS and CVT should consider identifying a practice that would ensure that the data submitted in the State Controller’s Reports for CVT equate to total revenues, costs and operating statistics for the CVT service.

Compliance Finding: Fully Implemented.

Understanding of the Issue: Both MTS and CVT report CVT budgeted costs separately to the State Controller. As a result, the audit team was unable during the FY04-FY06 audit to determine with certainty whether CVT complies with PUC Section 99266.

Actions Taken and Results: City of Chula Vista finance staff prepare the State Controller’s Report using the best information available at the due date of the report. However, financial information is not complete within the City of Chula Vista until late December. As such, the information used to prepare the State Controller’s Report will normally be incomplete at the time of submission.

MTS staff has requested that the City of Chula Vista staff do the following:

- Standardize CVT report formatting similar to MTS report formatting for both the actual and budgeted figures.
- Submit a copy of State Controller’s Reports for CVT to the MTS Finance Department prior to submission to the State.
- Provide a reconciliation of the City of Chula Vista State Controller’s report with their audited financial statements to MTS within sixty days of the publication of the City of Chula Vista’s Comprehensive Annual Financial Report (CAFR).

Prior Audit Recommendation #2: MTS should work with SANDAG to verify the accuracy of performance data reported to SANDAG.

Compliance Finding: Major steps taken towards implementation.

Understanding of the Issue: This recommendation was a carryover from an audit recommendation from the FY04-FY06 performance audit to improve the accuracy of performance data reported to SANDAG on the B-10 forms. MTS has worked closely with SANDAG to revise the procedure for collecting and reporting data. The data is prepared and validated by MTS prior to transmittal to SANDAG to ensure the data was accurate, complete, and consistent.

Actions Taken and Results: Based on the recommendation, MTS and SANDAG revised their procedures for reporting data. The revised procedure includes reporting the data later in order to allow the data to be collected in its entirety and validated by MTS. This has resulted in fewer changes after the data has been transmitted to SANDAG. When there are changes made after transmittal, they are highlighted for transparency purposes.

While the data consistency has improved and the formula error in the Full Time Equivalent section of the form has been corrected for certain services, there continue to be calculation errors for B10-A.3 MTS Bus and B10-D ADA. A few data inconsistencies for MTS directly operated services (bus and rail) between the B-10 forms and NTD were identified.

These data discrepancies are likely due to the fact that MTS submits its B-10 forms to SANDAG before MTS finalizes data for submittal to NTD. The consistency between the B-10 forms and NTD will increase with the installation of real-time management system (RTMS) onto MTS bus and light rail vehicles by electronically recording data, and consequently increasing the accuracy of the data reported. Currently, light rail performance data is recorded manually. Bus performance data is collected electronically from the buses through a wireless application protocol (WAP) system.

Prior Audit Recommendation #3: MTS should identify ways to maintain the cost efficiency of MTS Trolley service.

Compliance Finding: Fully Implemented.

Understanding of the Issue: During the last audit period, despite Trolley service reductions, MTS Trolley operating costs increased by 6.3%. The cost growth was due in part to changes in scheduled travel times and additional maintenance of way personnel to increase track inspection and maintenance. This resulted in 21.7% growth in operating cost per service hour during the audit period, and 10.2% growth in operating cost per service mile. The reduced level of MTS Trolley service provision did not appear to translate to lower operating costs.

Actions Taken and Results: MTS reviewed cost drivers for its MTS Trolley service and implemented options to control costs going forward. In March 2009, prior to the audit period, MTS developed the MTS: Light Rail Network Short and Long-Term Operating Plans to improve efficiency.

Some solutions that MTS implemented during the audit period include:

- The Trolley Renewal Project, a system-wide rehabilitation and upgrade of the existing Trolley system, continued. The project includes new low floor vehicles, the rehabilitation and retrofit of stations and transit centers throughout the system, new crossovers and upgraded signaling, replacement of the overhead catenary wire, track work and rail replacement, slope repair, and traction power substation replacement and rehabilitation.
- MTS completed a capital project to bring the Green Line to downtown along with new operating plan for the Blue, Green, and Orange Lines. The project reduced the number of necessary train sets, the long turn time at San Ysidro, and travel time for reliefs on the Green Line.

- MTS ordered and received 30 new LRVs to replace the U2s. The new LRVs have better performance, are more reliable, and can carry up to four times the wheelchairs.
- MTS completed its Rail Fleet Management Plan in January 2012. It provides the general requirements for MTS Trolley's current and future rail vehicle fleet requirements, vehicle fleet spare percentage, special event service requirements, and maintenance practices.
- MTS Trolley reviewed rules, policies, and procedures for ways to reduce cost. Changes included modifications to work rules and retirement benefits.

MTS was able to contain its cost efficiency. Operating cost per car service hour increased by only 3.6% while the CPI grew by 5.6%.

Prior Audit Recommendation #4: MTS should develop a strategic plan for its provision of contracted services.

Compliance Finding: Fully Implemented.

Understanding of the Issue: The services being contracted by MTS have evolved significantly during the audit period. In particular, MTS Rural service has been scaled down significantly over the years. In addition, service provision in the National City area was restructured and the overall number of service contracts was reduced.

Actions Taken and Results: MTS is restricted in the amount of service that it may contract with an outside provider since the passage of California Assembly Bill 117 (Kehoe, 2003). The law essentially prohibits MTS from contracting out service now operated by San Diego Transit Corporation (SDTC). New services are not bound by the same restriction, and therefore staff analyzes any new service to determine if the service should be operated in-house by SDTC or contracted out. The analysis includes the location of the service and proximity to operations and maintenance facility bases, costs, capability of the entity to expand service, type of vehicles used, fleet compatibility issues, etc.

For example, MTS chose to operate the Super Loop service in-house because the Imperial Avenue division was the closest to the service area, thus minimizing excessive deadhead. In addition, the buses used brand new technology for MTS (gasoline-hybrid electric power plants). MTS determined that SDTC was more capable of introducing, monitoring, maintaining, and operating this new technology.

Working within this restriction, MTS has driven down costs by consolidating much of its contracted fixed route and Rural operations under a single miles-based contract. In addition, reduction of contracted services that were unproductive, such as the Scripps Ranch and Rancho Bernardo DART services and the Sorrento Valley Coaster Connection (also reported under DART in Form C) has helped contain operating costs for the agency and had little or no impact on ADA services.

MTS will continue to seek ways to improve efficiency by reviewing its service operations to determine the best method for service delivery. Operations will be evaluated to determine when opportunities are available for contracting within the confines of AB 117.

SECTION III: MANAGEMENT CONTROL AND REPORTING

On June 23, 2005, the MTS Board of Directors approved the following vision for MTS services.

A Vision for MTS Services

- Develop a **Customer-Focused System**: Provide services that reflect the travel needs and priorities of our customers.
- Develop a **Competitive System**: Provide services that are competitive with other travel options by meeting market segment expectations.
- Develop an **Integrated System**: Develop transit services as part of an integrated network rather than a collection of individual routes.
- Develop a **Sustainable System**: Provide appropriate types and levels of service that are consistent with market demands and are maintainable under current financial conditions.

To achieve this vision of a customer-focused, competitive, integrated, and sustainable system, MTS Board Policy No. 42 establishes a process for evaluating existing transit services. The policy provides a set of measures for annual evaluation, listed in Exhibit III-1.

Exhibit III-1: MTS Transit Service Performance Indicators

CUSTOMER FOCUSED / COMPETITIVE							INTEGRATED		SUSTAINABLE											
PRODUCTIVITY			QUALITY				CONNECTIVITY		RESOURCES		EFFICIENCY									
Total Passengers	Average Weekday Passengers	Passengers/Revenue Hour	Passengers/In Service Hour	Passenger Load Factor	On-Time Performance	Mean Distance between Failures	Accidents/100,000 Miles	Missed Trips/100,000 Trips	Comments/100,000 Passengers	Frequency at Major Transfer Points	Span of Service Consistency	Transfer Opportunities	In-Service Miles	In-Service Hours	Peak Vehicle Requirement	In-Service Speeds	In-Service/Total Miles	In-Service/Total Hours	Farebox Recovery Ratio	Subsidy/Passenger

Bold – Key indicators used for ranking route performance.

Source: MTS Policies and Procedures: Transit Service Evaluation and Adjustment (June 14, 2007)

For each indicator, MTS establishes performance targets every three years. These targets represent aggressive yet realistic service expectations based on service design, route characteristics, and operating environments. At the conclusion of each fiscal year, MTS conducts an annual service evaluation to compare actual performance of the system with the targets and to identify opportunities for adjustments and improvements based on this analysis. Overall system performance is documented in the Annual Performance Monitoring Report.

Routes in the bottom quartile for each route group for passengers per in service hour and subsidy per passenger are identified for further analysis on a segment basis (temporal and geographic) as well as closer look at other aspects of the route’s performance. MTS has established policies and procedures for service changes.

MTS departments develop departmental goals and objectives annually as part of the budget process, and the department managers also discuss and establish overall goals for the agency as a whole. Executive

sponsor, lead roles, participants, and deliverables are established as part of this agency plan. The statuses of the objectives are reported annually. In FY12, MTS had eight goals at an overall organizational level:

1. MTS Data: Make MTS data to be easily obtainable, real-time, useful, understandable, and in a readable format.
2. MTS Communication: Provide external communication on MTS Direction.
3. Fare Enhancement: Enhance MTS fare revenues via Senior, Disabled, and Medicare fare media.
4. Day Pass Conversion: Convert the MTS system from paper day passes to a Compass Card day pass fare media.
5. Fare Enhancement: Improve fare enforcement.
6. MTS Technology: Create a master plan and improve the direction of MTS technology.
7. MTS Project Management: Centralize fare collection management to MTS.
8. Green Line Extension: Implement the MTS Green Line extension operating plan from Old Town to 12th and Imperial by June 2012.

SECTION IV: PERFORMANCE TRENDS AND FUNCTIONAL REVIEW

This section of the report provides results of the analysis of TDA and functional performance indicators. This section of the audit report discusses performance results, beginning with the five TDA performance indicators required under Section 99246 (c) of the Public Utilities Code:

- Operating Cost per Service Hour: a measure of cost efficiency
- Operating Cost per Passenger: a measure of cost effectiveness
- Passengers per Service Hour: a measure of service productivity
- Passengers per Service Mile: another measure of service productivity
- Vehicle Service Hours per Employee Full-Time Equivalent (FTE): a measure of labor productivity.

TDA performance indicators are provided for MTS at the systemwide level (i.e., MTS Bus, MTS Contracted Bus (including Chula Vista Transit), and MTS Rail combined), as well as for each individual service type. Functional level performance is reviewed at the service type level. The performance trends cover the audit period, from FY10 through FY12, with FY09 used as a base year to provide a point of reference for the analysis.

Most primary data elements for this analysis are extracted from the National Transit Database. Other sources (e.g., MTS Annual Performance Monitoring Reports, Form C reports (Schedules of Base Statistics), State Controller, financial audit, and internal reports) have been used as necessary to improve data accuracy and availability.

Data collection and reporting procedures for the five TDA performance indicators were reviewed to verify that the data reported are consistent with data definitions. TDA performance indicators are used to assess service efficiency and effectiveness and to provide a point of departure to drill down into functional performance indicators and trends, to provide additional clarification of performance results.

IV-1. Systemwide Performance

Exhibit IV-1 shows MTS Bus Operations TDA performance indicators during the audit period.

Exhibit IV-1: MTS Systemwide TDA Performance Indicators

Verified TDA Statistics & Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Operating Costs	\$206,160,501	\$219,043,806	\$206,710,379	\$218,746,560	6.1%
Unlinked Passengers	92,112,421	82,752,842	84,714,637	86,526,018	-6.1%
Vehicle Service Hours	2,356,486	2,286,533	2,204,870	2,250,235	-4.5%
Vehicle Service Miles	30,541,976	28,950,681	27,922,623	28,655,993	-6.2%
Employee FTEs	2,261	2,166	2,019	2,095	-7.3%
Operating Cost per Service Hour	\$87.49	\$95.80	\$93.75	\$97.21	11.1%
Operating Cost per Passenger	\$2.24	\$2.65	\$2.44	\$2.53	13.0%
Passengers per Service Hour	39.09	36.19	38.42	38.45	-1.6%
Passengers per Service Mile	3.02	2.86	3.03	3.02	0.1%
Service Hours per Employee FTE	1,042	1,056	1,092	1,074	3.0%
Percentage Change Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: NTD Reports, B10 Combined Form C Reports for FY09-FY12

The main findings from Exhibit IV-1 are as follows:

- Operating cost per service hour, a measure of cost efficiency, increased by 11.1% during the audit period from \$87.49 in FY09 to \$97.21 in FY12. This was roughly double the 5.6% rate of inflation. The trend is a result of a 6.1% growth in operating costs and a 4.5% reduction in vehicle service hours during the audit period. The material growth in MTS expenses is primarily due to increases in the costs of the self-funded San Diego Transit Pension Plan. These costs also include the early pay-down of pension related debt (\$5.2 million). The pension percentage rate also increased from 14.3% in FY09 to 28.1% in FY12 primarily due to more conservative changes in the actuarial assumptions and recognition of prior period investment losses. Excluding these increased pension expenses, the total operating costs would be significantly lower. MTS has begun the process of mitigating these inflationary costs by instituting employee contributions for all employees, and finalizing agreements with San Diego Transit labor unions that include moving to a defined contribution plan for new union employees.
- Operating cost per passenger, a measure of cost effectiveness, increased by 13.0% from \$2.24 in FY09 to \$2.53 in FY12. The loss in cost effectiveness was due to a 6.1% increase in operating costs and a 6.1% loss in ridership. The loss of ridership is attributable to the economic recession, associated service reductions, and discrepancies in the passenger estimation program for San Diego Trolley.
- Service productivity remained relatively stable during the audit period. Passengers per service hour decreased by 1.6% while passengers per service mile increased by 0.1%. Despite the loss of ridership, MTS was able to strategically reduce service while minimizing impacts on ridership. Within the audit period, MTS has installed Automatic Passenger Counters (APCs) on its trolleys and is seeing an increase in ridership compared to the passenger forecast method currently used by SANDAG. MTS and SANDAG are working on obtaining approval from the FTA for use of APCs in trolley passenger counting, which MTS believes will improve these relative statistics.
- Service hours per employee FTE, a measure of labor productivity, increased by 3.0% during the audit period from 1,042 in FY09 to 1,074 in FY12. This trend is a result of a 4.5% decrease in vehicle service hours and a 7.3% decrease in employee FTEs.

Exhibit IV-2 shows MTS systemwide fare revenue indicators during the audit period.

Exhibit IV-2: MTS Systemwide Revenue Performance Indicators

Base Data and Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Operating Costs	\$206,160,501	\$219,043,806	\$206,710,379	\$218,191,603	5.8%
Farebox Revenues	\$88,872,086	\$87,493,053	\$87,598,263	\$90,693,476	2.0%
Net Cost	\$117,288,415	\$131,550,753	\$119,112,116	\$127,498,127	8.7%
Unlinked Passenger Trips	92,112,421	82,752,842	84,714,637	88,496,144	-3.9%
Farebox Recovery Ratio	43.1%	39.9%	42.4%	41.6%	-3.6%
Average Fare per Passenger Trip	\$0.96	\$1.06	\$1.03	\$1.02	6.2%
Net Cost per Passenger Trip	\$1.27	\$1.59	\$1.41	\$1.44	13.1%
Percentage Change					
Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: NTD Reports, B10 Combined Form C Reports for FY09-FY12

The main findings from Exhibit IV-2 are as follows:

- The MTS systemwide farebox recovery ratio fluctuated during the audit period from a high of 43.1% in FY09 to a low of 39.9% in FY10. MTS farebox recovery during the audit period was significantly higher than the MTS systemwide farebox recovery requirement of 31.9%.

- The average fare per passenger trip increased by 6.2% during the audit period, from \$0.96 to \$1.02. This reflects the changes in fare policies that MTS made. In 2007, SANDAG and MTS approved a phased increase in fares to make up for low sales tax revenue and the State of California's reallocation of transit dollars. MTS implemented two fare changes between FY09 and FY12. The first was implemented in January 2009 and increased the local bus cash fare from \$2 to \$2.25 and the costs for monthly passes. The second was implemented in July 2009 and increased the downtown zone trolley fare from \$1.25 to \$2.25, the shuttle bus fare from \$1 to \$2.25, and the costs for monthly and other passes. To reduce resale of day passes, as of April 2011, MTS offers \$5 day passes at rail stations exclusively on day pass Compass cards that cost \$2 initially. (Paper passes are still distributed on buses for \$7.)
- The net cost per passenger trip increased by 13.1%, from \$1.27 in FY09 to \$1.44 in FY12, exceeding inflation of 5.6% during the audit period. MTS and SANDAG are working on obtaining approval from the FTA for use of APCs in trolley passenger counting, which MTS believes will improve the ridership numbers for rail operations and this relative statistic.

The rest of this chapter includes the following sections:

- MTS Bus Operations
- MTS Contracted Bus Operations, including Chula Vista and paratransit services.
- MTS Rail Operations

Each section includes an overview of performance against TDA performance indicators, followed by a discussion of performance at the functional level.

IV-2. MTS – Directly Operated Bus Operations Performance

Exhibit IV-3 shows MTS Bus Operations TDA performance indicators during the audit period.

Exhibit IV-3: MTS Bus TDA Performance Indicators

Verified TDA Statistics & Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Operating Costs	\$81,271,385	\$93,831,481	\$81,205,876	\$88,239,698	8.6%
Unlinked Passengers	29,762,278	26,920,502	27,252,222	28,801,745	-3.2%
Vehicle Service Hours	843,438	788,560	753,549	756,651	-10.3%
Vehicle Service Miles	9,221,197	8,623,561	8,177,701	8,220,685	-10.9%
Employee FTEs	796	768	685	726	-8.8%
Operating Cost per Service Hour	\$96.36	\$118.99	\$107.76	\$116.62	21.0%
Operating Cost per Passenger	\$2.73	\$3.49	\$2.98	\$3.06	12.2%
Passengers per Service Hour	35.29	34.14	36.17	38.06	7.9%
Passengers per Service Mile	3.23	3.12	3.33	3.50	8.6%
Service Hours per Employee FTE	1,059	1,027	1,100	1,042	-1.7%
Percentage Change					
Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: NTD Reports for FY09-FY12

Main findings from Exhibit IV-3 are as follows:

- MTS Bus Operations incurred growth in operating costs that exceeded the growth in the CPI. Costs increased by 8.6% from FY09 through FY12, while the CPI grew by 5.6%. As mentioned previously, the material growth in Bus Operations expenses are primarily due to increases in

pension related costs. Excluding these increased pension expenses, the total operating costs would be significantly lower.

- Increasing operating costs, ridership losses, and service cuts resulted in losses in cost efficiency and effectiveness. Cost efficiency decreased as the operating cost per service hour increased by 21.0%. Cost effectiveness also decreased as the operating cost per passenger increased by 12.2%.
- Although ridership decreased by 3.2%, service reductions in service hours and miles decreased by over 10%, resulting in a net increase in service productivity. Passengers per service hour and per service mile increased by 7.9% and 8.6%, respectively. The continued implementation of the 2006 Comprehensive Operational Analysis has resulted in sustained improvements in service productivity of MTS bus operations.
- Service hours per employee FTE, a measure of labor productivity, decreased over the audit period by 1.7%.

Exhibit IV-4 shows MTS Bus Operations fare revenue indicators during the audit period.

Exhibit IV-4: MTS Bus Revenue Performance Indicators

Base Data and Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Operating Costs	\$81,271,385	\$93,831,481	\$81,205,876	\$88,239,698	8.6%
Farebox Revenues	\$27,881,540	\$26,708,013	\$26,055,592	\$27,497,861	-1.4%
Net Cost	\$53,389,845	\$67,123,468	\$55,150,284	\$60,741,837	13.8%
Unlinked Passenger Trips	29,762,278	26,920,502	27,252,222	28,801,745	-3.2%
Farebox Recovery Ratio	34.3%	28.5%	32.1%	31.2%	-9.2%
Average Fare per Passenger Trip	\$0.94	\$0.99	\$0.96	\$0.95	1.9%
Net Cost per Passenger Trip	\$1.79	\$2.49	\$2.02	\$2.11	17.6%
Percentage Change Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: NTD Reports for FY09-FY12

Main findings from Exhibit IV-4 are as follows:

- With the increase in operating costs and decrease in ridership and fare revenue, farebox recovery of MTS directly operated bus services decreased by 9.2%. However, MTS Bus Operations continues to exceed the TDA-mandated farebox recovery ratio (20% for urban systems) and contributed to the achievement of the systemwide recovery requirement (31.9%).
- As a result of the fare changes, the average fare per passenger trip peaked in FY10 at \$0.99 and increased slightly over the audit period by 1.9%.
- Due to increasing operating costs and decreasing ridership, the net cost per passenger trip increased by 17.6% over the audit period.

During the audit period, MTS reduced its directly operated bus operations services. This is shown in Exhibit IV-5.

Exhibit IV-5: MTS Bus Operations Performance Indicators

Base Data and Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Operations FTEs	575.8	544.8	493.5	512.9	-10.9%
Total Operating Costs	\$50,560,806	\$56,888,735	\$47,463,056	\$51,551,357	2.0%
Vehicle Service Hours (VSH)	843,438	788,560	753,549	756,651	-10.3%
Vehicle Service Miles (VSM)	9,221,197	8,623,561	8,177,701	8,220,685	-10.9%
Total Vehicle Hours	886,742	828,957	793,750	797,809	-10.0%
Total Vehicle Miles	10,370,676	9,776,085	9,325,515	9,400,422	-9.4%
Unlinked Passenger Trips	29,762,278	26,920,502	27,252,222	28,801,745	-3.2%
Passenger Miles	107,408,405	98,162,772	100,500,080	106,803,639	-0.6%
VSH per Operations FTE	1,465	1,448	1,527	1,475	0.7%
VSM per Operations FTE	16,015	15,830	16,571	16,027	0.1%
Service Miles per Service Hour	10.9	10.9	10.9	10.9	-0.6%
Service Hours / Total Hours	95.1%	95.1%	94.9%	94.8%	-0.3%
Service Miles / Total Miles	88.9%	88.2%	87.7%	87.5%	-1.6%
Oper Cost per Passenger Trip	\$1.70	\$2.11	\$1.74	\$1.79	5.4%
Oper Cost per Passenger Mile	\$0.47	\$0.58	\$0.47	\$0.48	2.5%
In-Service Speed	13.4	13.2	13.4	13.3	-0.7%
Avg Psgr Miles per Psgr Trip	3.6	3.6	3.7	3.7	2.8%
Preventable Accidents per 100,000 Miles	1.76	1.73	1.58	1.47	-16.5%
Percentage Change					
Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: NTD Reports, MTS Annual Performance Monitoring Reports for FY09-FY12

Main findings from Exhibit IV-5 are as follows:

- Operations staffing decreased by 10.9%, proportionate to the reduction in vehicle service hours and miles. As a result service hours and miles per operations FTE remained relatively stable.
- Vehicle service hours and miles decreased in line with total hours and miles. Service hours per total hours and service miles per total miles decreased by 0.3% and 1.6%, respectively.
- MTS was able to contain increases in operating costs by service reductions. Operating costs increased by only 2.0% over the audit period. Meanwhile, ridership decreased. Due to increasing operating costs and ridership losses, operating cost per passenger trip increased by 5.4%, and operating cost per passenger mile increased by 2.5% over the audit period.
- Average in-service speeds remained slightly over 13 miles per hours.
- Passenger trip lengths increased as the average passenger miles per passenger trip increased by 2.8%. The average trip ranged from 3.6 to 3.7 miles.
- Preventable accidents per 100,000 miles decreased significantly by 16.5%.

During the audit period, MTS increased its directly operated bus maintenance staffing and costs. This is shown in Exhibit IV-6.

Exhibit IV-6: MTS Bus Maintenance Performance Indicators

Base Data and Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Maintenance FTEs	184.8	189.5	169.2	189.5	2.6%
Maintenance Costs	\$19,878,170	\$22,579,496	\$20,293,984	\$22,084,928	11.1%
Total Vehicle Hours	886,742	828,957	793,750	797,809	-10.0%
Total Vehicle Miles	10,370,676	9,776,085	9,325,515	9,400,422	-9.4%
Peak Vehicles	204	198	194	199	-2.5%
Total Vehicles	247	236	236	266	7.7%
Veh Hours per Maintenance FTE	4,799	4,375	4,692	4,209	-12.3%
Veh Miles per Maintenance FTE	56,123	51,598	55,119	49,599	-11.6%
Maintenance Cost per Active Vehicle	\$80,478	\$95,676	\$85,991	\$83,026	3.2%
Maintenance Cost per Vehicle Hour	\$22.42	\$27.24	\$25.57	\$27.68	23.5%
Maintenance Cost per Vehicle Mile	\$1.92	\$2.31	\$2.18	\$2.35	22.6%
Veh Hours per Active Vehicle	3,590	3,513	3,363	2,999	-16.5%
Veh Miles per Active Vehicle	41,987	41,424	39,515	35,340	-15.8%
Mean Distance between Failures (MDBF)	5,433	5,248	6,781	9,706	78.6%
Spare Ratio	21.1%	19.2%	21.6%	33.7%	59.7%
Percentage Change					
Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: NTD Reports, MTS Annual Performance Monitoring Reports for FY09-FY12

Main findings from Exhibit IV-6 are as follows:

- Maintenance staffing increased by 2.6%, while total vehicle hours and miles decreased by 10.0% and 9.4% respectively. As a result service hours and miles per maintenance FTE decreased by 12.3% and 11.6% respectively.
- Maintenance costs increased by 11.1% over the audit period, slightly exceeding the growth in the CPI of 5.6%, primarily due to the increases in pension related costs discussed previously.
- Due to the reduction in service, the number of vehicles used during the peak decreased by 2.5%.
- MTS retired several buses between FY09 and FY10. In FY12, MTS received 30 new buses, increasing the total number of active vehicles to 266.
- Despite increasing maintenance costs, the maintenance cost per active vehicle increased by only 3.2%. Between FY09 and FY10, the maintenance cost per active vehicle increased by 6.5%, due to the reduce number of vehicles being maintain with the retirement of vehicles.
- Maintenance cost per vehicle hour and mile increased by 23.5% and 22.6% respectively, due to service cuts and pension related cost increases.
- Vehicle hours and miles per active vehicle decreased by 16.5% and 15.8%. Prior to the arrival of the new vehicles in FY12, vehicle hours and miles per active vehicle decreased by 6.3% and 5.9%, respectively, between FY09 and FY11.
- The increased investment in maintenance and arrival of new vehicles in FY12 resulted in an increase in the mean distance between failures (MDBF) of 78.6%. Between FY09 and FY11,

MDBF improved by 24.8%. Between FY11 and FY12, MDBF improved by 43.1%, in part due to the arrival of new buses.

- Due to decrease in the number of peak vehicles needed as a result of the service cuts prior to and during the audit period, the spare ratio exceeded 20%. In addition, MTS is transitioning its diesel bus fleet to CNG. In FY12, The arrival of 30 new CNG buses increased the size of the active fleet, resulting in a spare ratio of 33.7%. Following the delivery of the new buses, six buses were retired. In FY13, MTS implemented service increases in September 2012 and January 2013, increasing the number of required peak vehicles to 215 (with a total fleet of 260 vehicles and spare ratio of 20.9%). In December 2013, two additional buses are to be retired, lowering the spare ratio to 20%. For purposes of reporting spare ratio to FTA, MTS calculates its spare ratio for all regional MTS buses due to some smaller sub-fleets and dedicated fleets. The regional MTS bus spare ratio is 19.67% (478 peak buses with 572 active buses).

During the audit period, MTS decreased its directly operated bus administration staffing, while administration costs increased. This is shown in Exhibit IV-7.

Exhibit IV-7: MTS Bus Administration Performance Indicators

Base Data and Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Administration FTEs	35.8	33.3	22.5	24.0	-32.9%
Administration Costs	\$10,832,409	\$14,363,250	\$13,448,836	\$14,603,413	34.8%
Vehicle Service Hours (VSH)	843,438	788,560	753,549	756,651	-10.3%
Vehicle Service Miles (VSM)	9,221,197	8,623,561	8,177,701	8,220,685	-10.9%
VSH per Administration FTE	23,579	23,666	33,446	31,514	33.7%
VSM per Administration FTE	257,791	258,810	362,969	342,386	32.8%
Complaints per 100,000 Passengers	10.7	8.9	7.8	5.7	-46.7%
Percentage Change Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: NTD Reports, MTS Annual Performance Monitoring Reports for FY09-FY12

Main findings from Exhibit IV-7 are as follows:

- Administration staffing decreased significantly by 32.9%. This decrease in staffing outpaced the service cuts. As a result, the service hours and miles per administration FTE increased by 33.7% and 32.8%, respectively.
- Administration costs increased by 34.8% over the audit period. In FY10, MTS consolidated various administration areas (including SDTC – MTS directly operated bus services) to centralize functions and in doing so make it easier to implement cost saving measures. For SDTC, the increase was \$2.4 million. Other remaining increases were due to higher fringe costs, which are allocated to administration costs.
- Customer satisfaction increased as complaints per 100,000 passengers decreased by 46.7% over the audit period.

IV-3. MTS – Contracted Bus Operations

Performance reporting for MTS Contracted Bus Operations is consolidated and reported in the Combined Form C submitted to SANDAG. The Combined Form C provides six reports for contracted service, based on service type:

- Fixed Route Services
- Commuter Express Bus

- Rural Bus Services
- Chula Vista Transit
- General Public Demand Response - DART
- ADA Demand Response Service

This structure has been followed for this performance audit. Rural is maintained as a separate service because SANDAG's TDA Claims Manual has retained the State's 10% farebox recovery requirement for Rural Services. For each service type, there is a review of TDA-mandated performance indicators and revenue performance indicators. A separate section also reviews combined contracted bus services (Fixed Route, Commuter Express, and Rural transit services).

IV-3.1. MTS – Contracted Bus Fixed Route Services

Despite challenges, overall performance of MTS Contracted Fixed Route Bus Operations was positive during the audit period. Exhibit IV-8 provides TDA performance indicators for MTS Contracted Fixed Route Services.

Exhibit IV-8: MTS Contracted Fixed Route Bus Operations TDA Performance Indicators

TDA Performance Data	Base Year	Audit Review Period			% Change
	FY09	FY10	FY11	FY12	FY09-FY12
Operating Costs	\$44,840,359	\$43,901,108	\$43,229,646	\$44,285,402	-1.2%
Unlinked Passengers	20,988,952	21,224,936	21,865,638	22,959,078	9.4%
Vehicle Service Hours	771,215	751,804	733,068	740,783	-3.9%
Vehicle Service Miles	8,382,100	7,970,452	7,697,280	7,760,481	-7.4%
Employee FTEs	657	640	586	593	-9.7%
TDA Performance Indicators					
Operating Cost per Service Hour	\$58.14	\$58.39	\$58.97	\$59.78	2.8%
Operating Cost per Passenger	\$2.14	\$2.07	\$1.98	\$1.93	-9.7%
Passengers per Service Hour	27.22	28.23	29.83	30.99	13.9%
Passengers per Service Mile	2.50	2.66	2.84	2.96	18.1%
Service Hours per Employee FTE	1,174	1,175	1,251	1,249	6.4%
Percentage Change					
Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: B10, Combined Form C Reports for FY09-FY12

Main findings from Exhibit IV-8 are as follows:

- Operating costs for contracted fixed route services decreased by 1.2% over the audit period. When adjusted for service consumed (cost per passenger) cost decreased significantly by 9.7% despite a growth in CPI of 5.6%. These results reflect success in controlling costs in all areas while attracting ridership growth.
- Service productivity also improved, as the growth in passenger boardings increased significantly compared to a decrease in service hours and miles. Passengers per service hour and passengers per service mile increased by 13.9% and 18.1% respectively.
- Because the decrease in the number of employee FTEs is significantly greater than the overall decrease in the number of service hours over the audit period, labor productivity (service hours per FTE) increased by 6.4%.

Fare revenue indicators for MTS Contracted Fixed Route Bus increased over the audit period. This is shown in Exhibit IV-9.

Exhibit IV-9: MTS Contracted Fixed Route Revenue Performance Indicators

Base Data and Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Operating Costs	\$44,840,359	\$43,901,108	\$43,229,646	\$44,285,402	-1.2%
Farebox Revenues	\$20,980,981	\$21,370,337	\$20,935,924	\$22,394,590	6.7%
Net Cost	\$23,859,378	\$22,530,771	\$22,293,722	\$21,890,812	-8.3%
Unlinked Passenger Trips	20,988,952	21,224,936	21,865,638	22,959,078	9.4%
Farebox Recovery Ratio	46.8%	48.7%	48.4%	50.6%	8.1%
Average Fare per Passenger Trip	\$1.00	\$1.01	\$0.96	\$0.98	-2.4%
Net Cost per Passenger Trip	\$1.14	\$1.06	\$1.02	\$0.95	-16.1%
Percentage Change Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: B10, Combined Form C Reports for FY09-FY12

Contracted fixed route services have significantly exceeded the TDA 20% farebox recovery requirement and contributed to the achievement of MTS exceeding the systemwide recovery requirement (31.9%). This indicator improved by 8.1% over the audit period.

IV-3.2. MTS – Commuter Express Services

Although operated by the same contractor, Veolia Transportation, Commuter Express Services are treated separately in the Combined Form C submittal to SANDAG. Exhibit IV-10 provides Commuter Express TDA performance indicators.

Exhibit IV-10: MTS Contracted Commuter Express TDA Performance Indicators

TDA Performance Data	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Operating Costs	\$1,867,218	\$1,830,028	\$2,225,496	\$2,485,387	33.1%
Unlinked Passengers	303,169	282,419	300,453	310,672	2.5%
Vehicle Service Hours	12,309	10,939	12,365	12,887	4.7%
Vehicle Service Miles	315,086	299,702	326,780	349,953	11.1%
Employee FTEs	21	19	19	19	-8.3%
TDA Performance Indicators					
Operating Cost per Service Hour	\$151.70	\$167.29	\$179.98	\$192.86	27.1%
Operating Cost per Passenger	\$6.16	\$6.48	\$7.41	\$8.00	29.9%
Passengers per Service Hour	24.63	25.82	24.30	24.11	-2.1%
Passengers per Service Mile	0.96	0.94	0.92	0.89	-7.7%
Service Hours per Employee FTE	586	576	651	669	14.2%
Percentage Change Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: B10, Combined Form C Reports for FY09-FY12

Main findings from Exhibit IV-10 are as follows:

- TDA performance measures reflect mixed results in all key performance indicators. From FY09 through FY12, operating costs increased significantly by 33.1%, in contrast to growth in the CPI of 5.6%, primarily due to increased service and higher diesel rates. Excluding fuel, operating costs growth would be significantly less. While vehicle service hours and miles increased 4.7% and 11.1% respectively, ridership followed a slightly smaller trend increasing by 2.5%.
- As a result of all of these factors, operating cost per passenger increased 29.9% from \$6.16 in FY09 to \$8.00 in FY12, reversing the trend from the prior audit period FY06 to FY09.
- Operating costs per service hour also experienced dramatic increases throughout the audit period increasing from \$151.70 per service hour in FY09 to \$192.89 per service hour in FY12 for an overall increase of 27.1%.
- With the combined slight increase of 4.7% in vehicle service hours and the 8.3% reduction in FTE's over the audit period, employee productivity improved by 14.2% over the audit period.

Fare revenue indicators for MTS Contracted Commuter Express services decreased over the audit period. This is shown in Exhibit IV-11.

Exhibit IV-11: MTS Contracted Commuter Express Revenue Performance Indicators

Base Data and Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Operating Costs	\$1,867,218	\$1,830,028	\$2,225,496	\$2,485,387	33.1%
Farebox Revenues	\$946,024	\$1,104,756	\$1,115,923	\$1,154,306	22.0%
Net Cost	\$921,194	\$725,272	\$1,109,573	\$1,331,081	44.5%
Unlinked Passenger Trips	303,169	282,419	300,453	310,672	2.5%
Farebox Recovery Ratio	50.7%	60.4%	50.1%	46.4%	-8.3%
Average Fare per Passenger Trip	\$3.12	\$3.91	\$3.71	\$3.72	19.1%
Net Cost per Passenger Trip	\$3.04	\$2.57	\$3.69	\$4.28	41.0%
Percentage Change Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: B10, Combined Form C Reports for FY09-FY12

Despite a decrease of 8.3% in the farebox recovery ratio over the audit period, Commuter Express Services still significantly exceeded both the TDA 20% farebox recovery requirement and contributed to the achievement of MTS exceeding the systemwide recovery requirement (31.9%).

The net cost per passenger trip increased by 41.0% while the average fare per passenger increased by 19.1% over the audit period. Excluding fuel increases, the operating cost per passenger would be significantly lower.

IV-3.3. MTS – Contracted Bus Rural Services

Rural transit services link the sparsely populated central and eastern portions of San Diego County to the San Diego urban core. Vehicle service hours and miles were reduced by approximately 65% in the prior audit period and have remained at that level throughout the current audit period. However, service efficiencies have improved dramatically during the current audit period in spite of reduced service hours and miles.

Exhibit IV-12 provides TDA performance indicators for MTS Contracted Bus Rural Services.

Exhibit IV-12: MTS Contracted Bus Rural Services TDA Performance Indicators

TDA Performance Data	Base Year	Audit Review Period			% Change
	FY09	FY10	FY11	FY12	FY09-FY12
Operating Costs	\$646,245	\$633,974	\$672,479	\$679,013	5.1%
Unlinked Passengers	24,425	26,672	37,879	38,913	59.3%
Vehicle Service Hours	4,333	4,414	4,039	4,377	1.0%
Vehicle Service Miles	119,092	116,278	118,291	115,068	-3.4%
Employee FTEs	6	6	6	6	0.0%
TDA Performance Indicators					
Operating Cost per Service Hour	\$149.14	\$143.63	\$166.50	\$155.13	4.0%
Operating Cost per Passenger	\$26.46	\$23.77	\$17.75	\$17.45	-34.0%
Passengers per Service Hour	5.64	6.04	9.38	8.89	57.7%
Passengers per Service Mile	0.21	0.23	0.32	0.34	64.9%
Service Hours per Employee FTE	722	706	646	730	1.0%
Percentage Change					
Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: B10, Combined Form C Reports for FY09-FY12

Main findings from Exhibit IV-12 are as follows:

- Operating costs increased slightly by 5.1% during the audit period, while service provided in terms of vehicle service hours increased minimally at 1.0% and vehicle service miles decreased slightly at 3.4%. As a result, operating cost per service hour increased by 4.0% compared to an increase in the CPI of 5.6%.
- Ridership, following a significant decrease in the prior audit period has increased steadily during the audit period from 24,425 passengers in the base year to 38,913 in FY12. With the stable operating costs throughout the audit period and the 59.3% increase in passengers over the audit period, the operating cost per passenger has been reduced by 34.0% over the audit period.
- With the stable service hours and service miles over the audit period and the significant increase in passengers, boardings per hour and per mile increased by 57.7% and 64.9%, respectively.

Exhibit IV-13 provides revenue performance indicators for MTS Contracted Bus Rural Services.

Exhibit IV-13: MTS Contracted Bus Rural Services Revenue Performance Indicators

Base Data and Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Operating Costs	\$646,245	\$633,974	\$672,479	\$679,013	5.1%
Farebox Revenues	\$72,256	\$92,608	\$125,622	\$140,292	94.2%
Net Cost	\$573,989	\$541,366	\$546,857	\$538,721	-6.1%
Unlinked Passenger Trips	24,425	26,672	37,879	38,913	59.3%
Farebox Recovery Ratio	11.2%	14.6%	18.7%	20.7%	84.8%
Average Fare per Passenger Trip	\$2.96	\$3.47	\$3.32	\$3.61	21.9%
Net Cost per Passenger Trip	\$23.50	\$20.30	\$14.44	\$13.84	-41.1%
Percentage Change Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: B10, Combined Form C Reports for FY09-FY12

Farebox recovery increased from 11.2% in FY09 to 20.7% in FY12, exceeding the TDA-mandated farebox recovery ratio (10% for non-urban areas).

Due to the increase in ridership, the net cost per passenger decreased by 41.1% during the audit period.

IV-3.4. MTS – All Contracted Services – Combined

Contracted services include Fixed Route, Commuter Express and Rural Bus services. Exhibit IV-14 provides TDA performance indicators for MTS Combined Contracted Fixed Route Services.

Exhibit IV-14: MTS Combined Contracted Fixed Route TDA Performance Indicators

TDA Performance Data	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Operating Costs	\$47,353,822	\$46,365,110	\$46,127,621	\$48,004,759	1.4%
Unlinked Passengers	21,316,546	21,534,027	22,203,970	21,338,537	0.1%
Vehicle Service Hours	787,857	767,157	749,472	788,479	0.1%
Vehicle Service Miles	8,816,278	8,386,432	8,142,351	8,847,121	0.3%
Employee FTEs	684	665	611	619	-9.6%
TDA Performance Indicators					
Operating Cost per Service Hour	\$60.10	\$60.44	\$61.55	\$60.88	1.3%
Operating Cost per Passenger	\$2.22	\$2.15	\$2.08	\$2.25	1.3%
Passengers per Service Hour	27.06	28.07	29.63	27.06	0.0%
Passengers per Service Mile	2.42	2.57	2.73	2.41	-0.2%
Service Hours per Employee FTE	1,152	1,153	1,226	1,275	10.7%
Percentage Change Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: B10, Combined Form C Reports for FY09-FY12

When viewed as a whole, with the exception of total FTE's, all fixed route contracted services combined reflect neutral or flat trends over the audit period.

- Operating costs for combined contracted fixed route services increased by only 1.4% over the audit period compared to overall growth in the CPI of 5.6%.
- When adjusted for service consumed (operating cost per passenger) or service supplied (operating cost per service hour), costs increased at a modest rate at 1.3% for each. These results reflect a success in controlling costs while maintaining vehicle service hours, vehicle service miles, and retaining consistent ridership.
- Additionally, the number of employee FTE's were reduced significantly over the audit period from 684 in FY09 to 619 in FY12, increasing labor productivity (service hours per FTE) by 10.7%.

Exhibit IV-15 provides revenue performance indicators for MTS Combined Contracted Fixed Route Services.

Exhibit IV-15: MTS Combined Contracted Fixed Route Revenue Performance Indicators

Base Data and Performance Indicators	Base Year FY06	Audit Review Period			% Change FY06-FY09
		FY07	FY08	FY09	
Operating Costs	\$47,353,822	\$46,365,110	\$46,127,621	\$47,449,802	0.2%
Farebox Revenues	\$21,999,261	\$22,567,701	\$22,177,469	\$23,621,152	7.4%
Net Cost	\$25,354,561	\$23,797,409	\$23,950,152	\$23,828,650	-6.0%
Unlinked Passenger Trips	21,316,546	21,534,027	22,203,970	23,308,663	9.3%
Farebox Recovery Ratio	46.5%	48.7%	48.1%	49.8%	7.2%
Average Fare per Passenger Trip	\$1.03	\$1.05	\$1.00	\$1.01	-1.8%
Net Cost per Passenger Trip	\$1.19	\$1.11	\$1.08	\$1.02	-14.1%
Percentage Change Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: B10, Combined Form C Reports for FY09-FY12

At a 49.8% farebox recovery ratio in FY12, the Combined Fixed Route services have easily exceeded the TDA 20% farebox recovery requirement and contributed to the achievement of the systemwide recovery requirement (31.9%). This indicator improved annually throughout the audit period, with a 7.2% total increase from FY09 to FY12.

IV-3.5 MTS - DART Services

DART was designed to provide direct access to regional transit. Exhibit IV-16 provides DART TDA performance indicators for the audit period.

Exhibit IV-16: MTS Contracted Bus DART TDA Performance Indicators

Verified TDA Statistics & Performance Indicators	Base Year	Audit Review Period			% Change
	FY09	FY10	FY11	FY12	FY09-FY12
Operating Costs	\$767,420	\$303,204	\$306,444	\$269,974	-64.8%
Unlinked Passengers	130,780	75,543	102,729	119,554	-8.6%
Vehicle Service Hours	12,774	5,172	5,200	5,490	-57.0%
Vehicle Service Miles	123,582	64,422	64,988	61,465	-50.3%
Employee FTEs	13	8	8	5	-61.5%
TDA Performance Indicators					
Operating Cost per Service Hour	\$60.08	\$58.62	\$58.93	\$49.18	-18.1%
Operating Cost per Passenger	\$5.87	\$4.01	\$2.98	\$2.26	-61.5%
Passengers per Service Hour	10.24	14.61	19.76	21.78	112.7%
Passengers per Service Mile	1.06	1.17	1.58	1.95	83.8%
Service Hours per Employee FTE	983	647	650	1,098	11.7%
Percentage Change					
Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: B10, Combined Form C Reports for FY09-FY12

MTS Contracted Services continued to decrease DART services throughout the audit period. All TDA performance indicators indicate decreases from FY09 through FY12. As a result, due to a much smaller decrease in passengers than service, the passengers per service hour and per service mile increased dramatically at 112.7% and 83.8% respectively.

Exhibit IV-17 provides revenue performance indicators for MTS DART Services.

Exhibit IV-17: MTS Contracted DART Revenue Performance Indicators

Base Data and Performance Indicators	Base Year	Audit Review Period			% Change
	FY09	FY10	FY11	FY12	FY09-FY12
Operating Costs	\$767,420	\$303,204	\$306,444	\$269,974	-64.8%
Farebox Revenues	\$217,037	\$118,570	\$103,825	\$119,451	-45.0%
Net Cost	\$550,383	\$184,634	\$202,619	\$150,523	-72.7%
Unlinked Passenger Trips	130,780	75,543	102,729	119,554	-8.6%
Farebox Recovery Ratio	28.3%	39.1%	33.9%	44.2%	56.4%
Average Fare per Passenger Trip	\$1.66	\$1.57	\$1.01	\$1.00	-39.8%
Net Cost per Passenger Trip	\$4.21	\$2.44	\$1.97	\$1.26	-70.1%
Percentage Change					
Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: B10, Combined Form C Reports for FY09-FY12

All performance indicators for DART services declined over the audit period with the exception of the DART farebox recovery ratio which increased from 28.3% to 44.2% as a result of significant reductions in

operating costs but minimal reductions in passenger trips and a smaller reduction in farebox revenue. The average fare per passenger trip decreased by 39.8% over the audit period and the net cost per passenger trip decreased by 70.1%.

IV-3.6 MTS – ADA Paratransit Services

MTS provides MTS Access and ADA Suburban Paratransit services in urban and suburban San Diego. Operating funding for these services is provided by local TDA and TransNet revenue sources. MTS Access provides the paratransit services required by the Americans with Disabilities Act (ADA) for the City of San Diego excluding San Ysidro and some mid-county communities. The ADA suburban/flex suburban paratransit contract provides MTS ADA Suburban Paratransit operations in mid-county, East County, and the South Bay communities.

Personal Care Attendants may travel without paying a fare. Children five years and younger travel free with a fare paying adult. Reservations are accepted from two days in advance up to 5:00 p.m. the day before travel.

Exhibit IV-18 provides TDA performance indicators for MTS Access services.

Exhibit IV-18: MTS Contracted Bus ACCESS TDA Performance Indicators

Verified TDA Statistics & Performance Indicators	Base Year	Audit Review Period			% Change
	FY09	FY10	FY11	FY12	FY09-FY12
Operating Costs	\$11,100,722	\$10,939,505	\$12,693,847	\$12,934,922	16.5%
Unlinked Passengers	372,373	353,986	358,646	355,300	-4.6%
Vehicle Service Hours	185,078	173,499	173,132	171,052	-7.6%
Vehicle Service Miles	3,244,550	2,998,678	2,988,874	2,948,808	-9.1%
Employee FTEs	207	207	210	211	1.9%
TDA Performance Indicators					
Operating Cost per Service Hour	\$59.98	\$63.05	\$73.32	\$75.62	26.1%
Operating Cost per Passenger	\$29.81	\$30.90	\$35.39	\$36.41	22.1%
Passengers per Service Hour	2.01	2.04	2.07	2.08	3.2%
Passengers per Service Mile	0.11	0.12	0.12	0.12	5.0%
Service Hours per Employee FTE	894	839	826	811	-9.3%
Percentage Change					
Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: B10, Combined Form C Reports for FY09-FY12

Like other transit agencies, MTS has been challenged to meet and manage ADA demand. Main findings from Exhibit IV-18 are as follows:

- Costs to provide ADA service increased by 16.5% over the audit period. Operating cost per passenger increased by 22.1%, from \$29.81 in FY09 to \$36.41 in FY12. At the same time, the cost per vehicle hour of service provided increased by 26.1%, from \$59.98 to \$75.62, significantly more than the 5.6% growth in the CPI.
- Reservation staff is nearly 100% bi-lingual, and the zero-denial commitment has been achieved over the audit period.
- Comparing FY12 to FY09, ADA ridership decreased slightly by 4.6% over the audit period.

Exhibit IV-19 provides revenue performance indicators for MTS ACCESS Services.

Exhibit IV-19: MTS Contracted Bus ACCESS Revenue Performance Indicators

Base Data and Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Operating Costs	\$11,100,722	\$10,939,505	\$12,693,847	\$12,934,922	16.5%
Farebox Revenues	\$1,640,856	\$1,723,531	\$1,754,731	\$1,571,479	-4.2%
Net Cost	\$9,459,866	\$9,215,974	\$10,939,116	\$11,363,443	20.1%
Unlinked Passenger Trips	372,373	353,986	358,646	355,300	-4.6%
Farebox Recovery Ratio	14.8%	15.8%	13.8%	12.1%	-17.8%
Average Fare per Passenger Trip	\$4.41	\$4.87	\$4.89	\$4.42	0.4%
Net Cost per Passenger Trip	\$25.40	\$26.03	\$30.50	\$31.98	25.9%
Percentage Change Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: B10, Combined Form C Reports for FY09-FY12

Operating costs increased annually throughout the audit period for a total increase of 16.5% from FY09 to FY12, while farebox revenue decreased by 4.2%. As a result, the farebox recovery ratio declined from 14.8% in FY09 to 12.1% in FY12.

The net cost per passenger trip increased by 25.9%, from \$25.40 in FY09 to \$31.98 in FY12.

IV-3.7. MTS – Chula Vista Transit Performance

The City of Chula Vista and MTS agreed that CVT will provide administration and contract compliance, and monitor service quality for transit services operated by the contractor within the City. CVT also agreed that it would continue to cooperate with MTS in administrative, management, and financial procedures pertaining to bus service provided by the contractor.

CVT currently operates a total of 38 buses. Over the audit period CVT maintained a consistent spare ratio of 18.8% as shown in Exhibit IV-20:

Exhibit IV-20: Fleet Size and Spare Ratio

Base Data & Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Peak Vehicles	32	32	32	32	0.0%
Total Vehicles	38	38	38	38	0.0%
Spare Ratio	18.8%	18.8%	18.8%	18.8%	

The average age of CVT's fleet is 10.4 years as of June 2012. The fleet is now 100% CNG-fueled buses. As buses are replaced they will reflect the unification under the MTS paint scheme.

Service quality and maintenance functions are monitored by CVT's Transit Coordinator to ensure that buses are well cleaned and maintained, that preventive maintenance inspections are conducted as required, that mileage operated is verified, and that missed trips are accounted for. CVT provides performance data to the MTS, who is responsible for data collection, maintenance, and reporting. CVT is also responsible for the maintenance and upkeep of the transit operations and maintenance facility, and bus stops.

Exhibit IV-21 provides Chula Vista Transit TDA performance indicators.

Exhibit IV-21: Chula Vista Transit TDA Performance Indicators

TDA Performance Data	Base Year	Audit Review Period			% Change
	FY09	FY10	FY11	FY12	FY09-FY12
Operating Costs	\$7,130,385	\$6,691,542	\$5,981,543	\$5,987,965	-16.0%
Unlinked Passengers	3,602,160	3,399,803	3,184,193	3,256,269	-9.6%
Vehicle Service Hours	117,820	109,688	100,722	100,960	-14.3%
Vehicle Service Miles	1,241,841	1,134,358	1,030,197	1,033,675	-16.8%
Employee FTEs	94	86	78	78	-17.0%
TDA Performance Indicators					
Operating Cost per Service Hour	\$60.52	\$61.01	\$59.39	\$59.31	-2.0%
Operating Cost per Passenger	\$1.98	\$1.97	\$1.88	\$1.84	-7.1%
Passengers per Service Hour	30.57	31.00	31.61	32.25	5.5%
Passengers per Service Mile	2.90	3.00	3.09	3.15	8.6%
Service Hours per Employee FTE	1,253	1,275	1,291	1,294	3.3%
Percentage Change					
Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: B10, Combined Form C Reports for FY09-FY12

Compared to the prior audit period, operating costs, ridership, and vehicle service hours and miles have all decreased during the audit period. Additionally, the overall employee FTE count has decreased from 94 in FY09 to 78 in FY12. Operating costs decreased by 16.0%, while vehicle service hours and vehicle service miles decreased by 14.3% and 16.8% respectively. Operating costs per service hour and per passenger decreased by 2.0% and 7.1% respectively.

As noted in Exhibit IV-22, CVT farebox recovery decreased over the audit period:

Exhibit IV-22: Chula Vista Transit Revenue Performance Indicators

Base Data and Performance Indicators	Base Year	Audit Review Period			% Change
	FY09	FY10	FY11	FY12	FY09-FY12
Operating Costs	\$7,130,385	\$6,691,542	\$5,981,543	\$5,987,965	-16.0%
Farebox Revenues	\$3,679,760	\$3,325,446	\$2,834,119	\$2,667,125	-27.5%
Net Cost	\$3,450,625	\$3,366,096	\$3,147,424	\$3,320,840	-3.8%
Unlinked Passenger Trips	3,602,160	3,399,803	3,184,193	3,256,269	-9.6%
Farebox Recovery Ratio	51.6%	49.7%	47.4%	44.5%	-13.7%
Average Fare per Passenger Trip	\$1.02	\$0.98	\$0.89	\$0.82	-19.8%
Net Cost per Passenger Trip	\$0.96	\$0.99	\$0.99	\$1.02	6.5%
Percentage Change					
Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: B10, Combined Form C Reports for FY09-FY12

Operating costs decreased by 16.0% over the audit period while farebox revenue decreased by 27.5%. As a result, CVT's farebox recovery ratio decreased from 51.6% in FY09 to 44.5% in FY12, still greatly exceeding the 20% TDA requirement and contributing to MTS exceeding the systemwide recovery requirement (31.9%).

IV-3. MTS – Rail Operations Performance

Exhibit IV-23 shows MTS Rail Operations TDA performance indicators during the audit period.

Exhibit IV-23: MTS Rail TDA Performance Indicators

Verified TDA Statistics & Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Operating Costs	\$58,536,767	\$60,912,964	\$60,395,048	\$63,309,242	8.2%
Unlinked Passengers	36,928,284	30,468,981	31,612,877	32,654,613	-11.6%
Vehicle Service Hours	409,519	442,457	422,795	427,603	4.4%
Vehicle Service Miles	7,894,528	7,743,230	7,518,512	7,544,239	-4.4%
Employee FTEs	466	432	427	456	-2.2%
Operating Cost per Service Hour	\$142.94	\$137.67	\$142.85	\$148.06	3.6%
Operating Cost per Passenger	\$1.59	\$2.00	\$1.91	\$1.94	22.3%
Passengers per Service Hour	90.17	68.86	74.77	76.37	-15.3%
Passengers per Service Mile	4.68	3.93	4.20	4.33	-7.5%
Service Hours per Employee FTE	878	1,024	990	938	6.8%
Percentage Change					
Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: NTD Reports for FY09-FY12

Main findings from Exhibit IV-23 are as follows:

- MTS Rail Operations incurred growth in operating costs that slightly exceeded the growth in the CPI. Costs increased by 8.2% from FY09 through FY12, while the CPI grew by 5.6%.
- Service hours increased by 4.4% and service miles decreased by 4.4%. Average in-service speed decreased by 15.6% from 21.2 miles per hour to 17.9 miles per hour due to construction impacts caused by the Trolley Renewal Project.
- Increasing operating costs, ridership losses, and service cuts resulted in losses in cost efficiency and effectiveness. Cost efficiency decreased as the operating cost per hour increased by 3.6%. Cost effectiveness also decreased as the operating cost per passenger increased by 22.3%.
- While ridership decreased by 11.6%, primarily due to the estimation discrepancies during the audit period, service reductions in service miles decreased by over 4.4%, resulting in a net decrease in service productivity. Passengers per hour and per mile decreased by 15.3% and 7.5%, respectively.
- Service hours per employee FTE, a measure of labor productivity, increased over the audit period by 6.8%.

Exhibit IV-24 shows MTS Rail Operations fare revenue indicators during the audit period.

Exhibit IV-24: MTS Rail Revenue Performance Indicators

Base Data and Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Operating Costs	\$58,536,767	\$60,912,964	\$60,395,048	\$63,309,242	8.2%
Farebox Revenues	\$33,453,632	\$33,049,792	\$34,672,527	\$35,216,408	5.3%
Net Cost	\$25,083,135	\$27,863,172	\$25,722,521	\$28,092,834	12.0%
Unlinked Passenger Trips	36,928,284	30,468,981	31,612,877	32,654,613	-11.6%
Farebox Recovery Ratio	57.1%	54.3%	57.4%	55.6%	-2.7%
Average Fare per Passenger Trip	\$0.91	\$1.08	\$1.10	\$1.08	19.0%
Net Cost per Passenger Trip	\$0.68	\$0.91	\$0.81	\$0.86	26.7%
Percentage Change Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: NTD Reports for FY09-FY12

Main findings from Exhibit IV-24 are as follows:

- Despite ridership losses, farebox revenues increased over the audit period. However, the increases in operating costs exceeded the increases in revenue, resulting in a decrease in farebox recovery of MTS rail services of 2.7%. MTS Rail Operations continues to exceed the TDA-mandated farebox recovery ratio (20% for urban systems) and contributed to MTS exceeding the systemwide recovery requirement (31.9%).
- As a result of the fare changes, the average fare per passenger trip peaked in FY11 at \$1.10 and increased over the audit period by 19.0%.
- Due to increasing operating costs and decreasing ridership, the net cost per passenger increased by 26.7% over the audit period.

During the audit period, MTS reduced its rail operating costs while increasing its operations staffing. This is shown in Exhibit IV-25.

Exhibit IV-25: MTS Rail Operations Performance Indicators

Base Data and Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Operations FTEs	181.7	183.2	188.3	213.4	17.4%
Total Operating Costs	\$24,830,489	\$20,934,568	\$18,872,370	\$19,588,041	-21.1%
Car Service Hours (CSH)	409,519	442,457	422,795	427,603	4.4%
Car Service Miles (CSM)	7,894,528	7,743,230	7,518,512	7,544,239	-4.4%
Total Car Hours	416,147	448,290	429,189	433,420	4.2%
Total Car Miles	7,982,813	7,828,434	7,607,927	7,621,905	-4.5%
Unlinked Passenger Trips	36,928,284	30,468,981	31,612,877	32,654,613	-11.6%
Passenger Miles	220,638,983	186,509,312	193,062,561	194,821,533	-11.7%

Base Data and Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
CSH per Operations FTE	2,253	2,415	2,245	2,004	-11.1%
CSM per Operations FTE	43,442	42,264	39,918	35,358	-18.6%
Service Miles per Service Hour	19.3	17.5	17.8	17.6	-8.5%
Service Hours / Total Hours	98.4%	98.7%	98.5%	98.7%	0.3%
Service Miles / Total Miles	98.9%	98.9%	98.8%	99.0%	0.1%
Oper Cost per Passenger Trip	\$0.67	\$0.69	\$0.60	\$0.60	-10.8%
Oper Cost per Passenger Mile	\$0.11	\$0.11	\$0.10	\$0.10	-10.7%
In-Service Speeds	21.2	21.3	18.3	17.9	-15.6%
Avg Psgr Miles per Psgr Trip	6.0	6.1	6.1	6.0	-0.1%
Preventable Accidents per 100,000 Miles	0.00	0.01	0.00	0.04	N/A
Percentage Change					
Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: NTD Reports, MTS Annual Performance Monitoring Reports for FY09-FY12

Main findings from Exhibit IV-25 are as follows:

- In FY12, MTS hired 19 new employees. The rail system is undergoing an extensive system-wide rehabilitation and upgrade of the existing trolley system. This Trolley Renewal Project includes the rehabilitation and retrofit of stations and transit centers throughout the system, new crossovers and upgraded signaling, replacement of the overhead catenary wire, track work and rail replacement, slope repair, and traction power substation replacement and rehabilitation. MTS has had to hire 20 additional flagpersons in order to facilitate this capital project, and the cost of these employees is paid for by the capital project.
- Operations staffing increased by 17.4%, while service hours increased by 4.4% and service miles decreased by 4.4%. As a result service hours and miles per operations FTE decreased by 11.1% and 18.6%, respectively.
- Vehicle service hours and miles decreased in line with total hours and miles. Service hours per total hours and service miles per total miles increased by only 0.3% and 0.1%, respectively.
- MTS decreased operating costs by 21.1%, while ridership decreased by 11.6%. Operating cost per passenger trip decreased by 10.8%, and operating cost per passenger mile decreased by 10.7% due to the reductions in operating costs over the audit period.
- Average in-service speeds decreased from 21.2 miles per hour to 17.9 miles per hour, a 15.6% reduction in speed, due to construction impacts caused by the Trolley Renewal Project.
- Passenger trip lengths remained relatively steady as the average passenger miles per passenger trip decreased by only 0.1%. The average trip ranged from 6.0 to 6.1 miles.
- Preventable accidents per 100,000 miles continued to remain low over the audit period.

During the audit period, MTS increased its rail maintenance staffing and costs. This is shown in Exhibit IV-26.

Exhibit IV-26: MTS Rail Maintenance Performance Indicators

Base Data and Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Maintenance FTEs	232.8	237.1	234.4	237.6	2.1%
Maintenance Costs	\$21,713,797	\$21,704,805	\$24,440,496	\$25,530,788	17.6%
Total Car Hours	416,147	448,290	429,189	433,420	4.2%
Total Car Miles	7,982,813	7,828,434	7,607,927	7,621,905	-4.5%
Peak Cars	93	93	93	95	2.2%
Total Cars	133	134	128	154	15.8%
Car Hours per Maintenance FTE	1,788	1,891	1,831	1,824	2.0%
Car Miles per Maintenance FTE	34,291	33,020	32,453	32,074	-6.5%
Maintenance Cost per Active Car	\$163,262	\$161,976	\$190,941	\$165,784	1.5%
Maintenance Cost per Car Hour	\$52.18	\$48.42	\$56.95	\$58.91	12.9%
Maintenance Cost per Car Mile	\$2.72	\$2.77	\$3.21	\$3.35	23.1%
Car Hours per Active Car	3,129	3,345	3,353	2,814	-10.1%
Car Miles per Active Car	60,021	58,421	59,437	49,493	-17.5%
Mean Distance between Failures (MDBF)	315,781	301,195	318,705	476,369	50.9%
Spare Ratio	43.0%	44.1%	37.6%	62.1%	44.4%
Percentage Change					
Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: NTD Reports, MTS Annual Performance Monitoring Reports for FY09-FY12

Main findings from Exhibit IV-26 are as follows:

- Maintenance staffing increased by 2.1%, while total hours increased by 4.2% and total car miles decreased by 4.5%. As a result total car hours per maintenance FTE increased by 2.0%, total miles per maintenance FTE decreased by 6.5%.
- Maintenance costs increased by 17.6% over the audit period, exceeding the growth in the CPI of 5.6%.
- The numbers of peak cars remained relatively stable over the audit period. In FY12, there was a slight increase in rail service, resulting in an increase in peak vehicles by 2.2% from 93 to 95 vehicles.
- In FY12, MTS received 30 new cars, increasing the total number of active cars to 154.
- Despite increasing maintenance costs, the maintenance cost per active car increased by only 1.5%.
- Maintenance cost per car hour and mile increased by 12.9% and 23.1%, respectively, due to increases in maintenance costs.
- Car hours and miles per active car decreased by 10.1% and 17.5%. Prior to the arrival of the new cars in FY12, car hours per active car increased by 7.2% and car miles per active car decreased by 1.0% between FY09 and FY11.
- The increased investment in maintenance and arrival of new vehicles in FY12 resulted in an increase in the MDBF of 50.9%. Between FY09 and FY11, MDBF improved by 0.9%. Between FY11 and FY12, MDBF improved by 49.5%.

- The spare ratio for prior to the audit period and during the audit period exceeded 20%. The increased fleet size is a temporary condition as a result of the transition to low-floor vehicles U2s as planned beginning in Fall 2012 (right after the audit period). In FY12, MTS received 30 new U2s, increasing the spare ratio to 62.1%. The older U2s are not train-line compatible. Although, new U2s have been arriving and commissioned for service, an appropriate number of older high-floor U2s need to remain in service until station platform modifications are completed on each operating line. In addition, following this audit period, in September 2012, MTS extended the Green Line eight additional Trolley stations into the Downtown area (immediately transitioning the requirement of 14 cars from a high-floor to low-floor model). In January 2013, the Orange Line was able to accommodate low-floor U2s (immediately transitioning a need for 24 more cars to be low-floor). As each of these transitions has occurred, MTS has expanded the retirement of cars within the older U2 vehicle fleet. It is expected that by early FY15 with the completion of the Trolley Renewal of the Blue Line, MTS will retire all remaining U2 vehicles (resulting in a smaller fleet size than base year FY09). In addition, MTS must allow for sufficient time for new LRV vehicles to be tested prior to beginning revenue service. With the retirement and sale of vehicles and new light rail lines (such as Mid-Coast), the spare ratio is expected to decrease. MTS should monitor and lower its spare ratio. MTS is currently negotiating with a transit operator in Argentina to sell its old U2s.

During the audit period, MTS decreased its rail administration staffing, while administration costs increased. This is shown in Exhibit IV-27.

Exhibit IV-27: MTS Rail Administration Performance Indicators

Base Data and Performance Indicators	Base Year FY09	Audit Review Period			% Change FY09-FY12
		FY10	FY11	FY12	
Administration FTEs	51.8	11.8	4.5	4.9	-90.5%
Administration Costs	\$11,992,481	\$18,273,591	\$17,082,182	\$18,190,413	51.7%
Car Service Hours (CSH)	409,519	442,457	422,795	427,603	4.4%
Car Service Miles (CSM)	7,894,528	7,743,230	7,518,512	7,544,239	-4.4%
CSH per Administration FTE	7,903	37,503	94,059	86,656	996.5%
CSM per Administration FTE	152,355	656,317	1,672,639	1,528,876	903.5%
Complaints per 100,000 Passengers	1.8	2.4	1.8	1.4	-20.7%
Percentage Change					
Consumer Price Index (CPI-All)		1.0%	2.3%	2.2%	5.6%

Source: NTD Reports, MTS Annual Performance Monitoring Reports for FY09-FY12

Main findings from Exhibit IV-7 are as follows:

- Administration staffing decreased significantly by 90.5%, as the security and parts/store departments were transferred to operations.
- Administration costs increased by 51.7% over the audit period. In FY10, MTS consolidated various administration areas (including San Diego Trolley Inc. (SDTI) – MTS directly operated rail service) to centralize functions and in doing so make it easier to implement cost saving measures. For SDTI, the increase was \$8.6 million.
- Customer satisfaction increased as complaints per 100,000 passengers decreased by 20.7% over the audit period.

SECTION V: CONCLUSIONS AND RECOMMENDATIONS

MTS is in compliance with most PUC requirements and has made satisfactory progress to implement prior audit recommendations:

- Compliance with PUC Requirements: MTS is in compliance with applicable PUC requirements.
- Progress to Implement Prior Audit Recommendations: MTS has taken appropriate steps to address the prior audit recommendations. MTS in coordination with the City of Chula Vista developed practices to improve the data accuracy of the Chula Vista State Controller Reports submitted by the City. MTS worked with SANDAG to revise the procedures to collect and report performance data on B-10 forms to improve data accuracy. MTS increased cost efficiency of its Trolley service by containing operating costs. In addition, the Trolley Renewal Project that started construction in Fall 2010 has also further improved operating efficiency of MTS Trolley service.

The systemwide TDA performance trends overall are indicative of the attention that MTS placed on cost containment during the audit period despite declining ridership due to the economic recession. Actions included service cuts, fare changes, and consolidation of service contracts. Contract negotiations for new work rules and retirement benefit policies that were underway during the audit period will also have positive impact on reducing MTS operating costs in the next audit period.

One recommendation is offered for consideration by MTS. Findings documented in previous sections of the performance audit indicate areas of positive performance as well as opportunities for improvements. Generally, MTS has successfully controlled cost increases while improving system maintenance and customer satisfaction, despite ridership losses due to the economic recession. This section provides recommendations to capitalize on these improvement opportunities. Rather than viewing recommendations as negative, it should be balanced against MTS' considerable positive performance results during the audit review period, noted throughout this report.

One recommendation addressing opportunities to improve operations efficiency is provided for MTS' consideration:

Recommendation 1: MTS should identify ways to maintain and improve the cost efficiency of MTS directly operated bus service.

Issues and Opportunities – While MTS directly operated bus service provision was reduced during the audit period, MTS directly operated bus operating costs increased by 8.6%. This resulted in 21.0% growth in operating cost per service hour during the audit period, and 12.2% growth in operating cost per service mile. The reduced levels of service provision for MTS directly operated bus services did not appear to translate to lower operating costs.

Recommended Actions – MTS should review cost drivers for directly operated bus service and consider options to control costs going forward. Such drivers may include work rules, policies and procedures, legislative mandates, vehicle performance, and equipment performance. Through the recent contract negotiation, MTS has already addressed many of these cost drivers.

Expected Results – If MTS is able to contain or reduce its unit cost of service provision for MTS directly operated bus service, this will allow MTS to control operating cost growth when service levels are increased as the regional economy improves.

MTS actions to address similar concerns from the last audit for MTS Trolley service were effective, resulting in an operating cost increase of only 3.6% over the audit period compared to a 5.6% increase in CPI.

Agency Response— MTS has begun the process of mitigating inflationary costs related to directly operated bus service. For example, MTS negotiated comprehensive work rule and benefit changes to all four labor contracts, including unprecedented pension reform that other transit systems are attempting to

model. Specially, all new bus operators and maintenance employees are placed in a defined contribution plan instead of a defined benefit plan. Legacy employees who remain in a defined benefit plan now contribute up to 5% of pay to their pensions. Moreover, we have also negotiated “pension cost sharing formulas” with the unions that represent employees who are members of CalPERS. Since CalPERS restricts the employer’s ability to place new employees in a defined contribution plan, we negotiated cost sharing formulas that require employees to automatically increase contributions to offset the employer’s share when certain thresholds are reached.

MTS has also negotiated extensive changes to work rules that will help the bottom line. For example, MTS directly operated bus employees now earn overtime pay for hours worked over 40 hours in a week instead of after 8 hours in a day, which has resulted in decreased absenteeism. Vacation and sick leave accruals have also been reduced and loopholes in attendance policies have been closed. The effects of these contracts will have a larger impact the next audit period of FY13 – FY15 and are forecasted to save the agency approximately \$80 million over the next 30 years.

MTS is restricted in the amount of service it may contract with an outside provider since the passage of California Assembly Bill 117 (Kehoe, 2003). The law essentially prohibits MTS from contracting out service now operated by San Diego Transit Corp. New services are not bound by the same restriction, therefore, staff analyzes any new service to determine if the service should be operated in-house by San Diego Transit Corp or contracted out. The analysis includes location of the service and proximity to operations and maintenance facility bases, cost, capability of the entity to expand service, type of vehicles used, fleet compatibility issues if any, etc. For example, the SuperLoop service was operated in house because the Imperial Avenue division was closest to the service area, thus minimizing excessive deadhead and the buses used were brand new technology for MTS (gasoline-hybrid electric power plants) and San Diego Transit was better capable of introducing, monitoring, maintaining, and operating this new technology.

Working within this restriction, MTS has driven down costs by consolidating much of its contracted operations under single mile or hour based contracts, consolidating facilities, and addressing energy costs. For example, in 2011, MTS combined ADA and minibus contracts, and purchased a centralized facility with direct freeway access for these services. MTS took advantage of the soft real estate market and performed a few modifications to the former RV sales site. These actions reduced the cost to operate the ADA service by \$7.3 million over the seven year term of that contract, and the minibus service by \$4.2 million over the ten year term of that contract. MTS has negotiated with BP to receive discounts on CNG gas by using credits for green, renewal gas. Furthermore, MTS opted into the California ISO program to purchase electricity from the state’s wholesale transmission grid, resulting in energy cost savings.

MTS will continue to seek ways to improve efficiency by reviewing its service operations to determine the best method for service delivery. Operations will be evaluated to determine when opportunities are available for contracting within the confines of AB 117.