



Commonwealth of Massachusetts  
Office of the State Auditor  
Suzanne M. Bump

*Making government work better*

Official Audit Report – Issued July 23, 2018

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## Lowell Regional Transit Authority

For the period July 1, 2015 through June 30, 2017





Commonwealth of Massachusetts  
Office of the State Auditor  
Suzanne M. Bump

*Making government work better*

July 23, 2018

Mr. James Scanlan, Administrator  
Lowell Regional Transit Authority  
115 Thorndike Street  
Lowell, MA 01852

Dear Mr. Scanlan:

I am pleased to provide this performance audit of the Lowell Regional Transit Authority. This report details the audit objectives, scope, methodology, findings, and recommendations for the audit period, July 1, 2015 through June 30, 2017. My audit staff discussed the contents of this report with management of the agency, whose comments are reflected in this report.

I would also like to express my appreciation to the Lowell Regional Transit Authority for the cooperation and assistance provided to my staff during the audit.

Sincerely,

A handwritten signature in blue ink, appearing to read "SMB", written over a light blue circular watermark.

Suzanne M. Bump  
Auditor of the Commonwealth

cc: Stephanie Pollack, Secretary of Transportation and Chief Executive Officer, Massachusetts Department of Transportation (MassDOT)  
Sally Atwell, Director of Internal Special Audit, MassDOT  
Kevin O'Connor, Chair, Lowell Regional Transit Authority

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## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>OVERVIEW OF AUDITED ENTITY .....</b>	<b>3</b>
<b>AUDIT OBJECTIVES, SCOPE, AND METHODOLOGY .....</b>	<b>8</b>
<b>DETAILED AUDIT FINDINGS WITH AUDITEE’S RESPONSE.....</b>	<b>11</b>
<b>1. The Lowell Regional Transit Authority did not submit required financial information to the Commonwealth to be made available to the public on a searchable website. ....</b>	<b>11</b>
<b>2. LRTA did not properly document the use of its non-revenue-producing vehicles by its employees. ....</b>	<b>12</b>

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## LIST OF ABBREVIATIONS

EOAF	Executive Office for Administration and Finance
FTA	Federal Transit Administration
MassDOT	Massachusetts Department of Transportation
MBTA	Massachusetts Bay Transportation Authority
LRTA	Lowell Regional Transit Authority
RTA	regional transit authority
RTAI	Ron Turley Associates, Inc.
RTD	Rail and Transit Division

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## EXECUTIVE SUMMARY

In accordance with Section 12 of Chapter 11 of the Massachusetts General Laws, the Office of the State Auditor has conducted a performance audit of the Lowell Regional Transit Authority (LRTA) for the period July 1, 2015 through June 30, 2017. In this performance audit, we assessed certain aspects of LRTA's preventive maintenance activities related to its fleet of vehicles, including equipment and vehicles for transporting passengers with disabilities under the requirements of the Americans with Disabilities Act of 1990. We also examined LRTA's use of its non-revenue-producing vehicles, as well as its compliance with the General Laws regarding providing its financial records to the Secretary of Administration and Finance for public disclosure.

Below is a summary of our findings and recommendations, with links to each page listed.

<b>Finding 1</b> <b>Page <a href="#">11</a></b>	LRTA did not submit required financial information to the Commonwealth to be made available to the public on a searchable website.
<b>Recommendations</b> <b>Page <a href="#">12</a></b>	<ol style="list-style-type: none"><li>1. LRTA should develop formal policies and procedures for submitting this required information to the Executive Office for Administration and Finance.</li><li>2. LRTA should establish monitoring controls to ensure that the staff members assigned to this task adhere to these policies and procedures.</li></ol>
<b>Finding 2</b> <b>Page <a href="#">12</a></b>	LRTA did not properly document the use of its non-revenue-producing vehicles by its employees.

**Recommendations**  
**Page 13**

1. LRTA should establish policies and procedures, consistent with those established by the Massachusetts Department of Transportation, for its non-revenue-producing vehicles that require a log that documents the following:
  - a. the name and driver's license expiration date of the employee who used the vehicle
  - b. the date and time the vehicle was picked up
  - c. the date and time the vehicle was returned
  - d. the vehicle's license plate number
  - e. the vehicle description
  - f. the intended destination and purpose
  - g. the beginning odometer reading
  - h. the condition of the vehicle before and after use
  - i. any damage
  - j. any maintenance issues identified during use
2. LRTA should ensure that these policies and procedures include monitoring controls to ensure that they are adhered to.

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## OVERVIEW OF AUDITED ENTITY

### Regional Transit Authorities

Chapter 161B of the Massachusetts General Laws established regional transit authorities (RTAs) to provide a public transportation system under the control of municipalities. Each RTA supports a number of communities (member communities) and is governed by an advisory board composed of the chief elected officials from those communities. Chapter 161B of the General Laws gives the Commonwealth certain oversight responsibilities, and it defines the process by which RTAs may be formed or expanded within the Commonwealth, as well as the duties, powers, and limitations of these RTAs. This law also outlines the membership of RTA advisory boards and their authority to appoint administrators, approve budgets, and approve significant changes in service fares. Currently, there is a network of 15 RTAs (12 urban and 3 rural) operating in the Commonwealth, in addition to the transit services provided by the Massachusetts Bay Transportation Authority (MBTA). These RTAs serve a total of 262 cities, suburban municipalities, and rural communities outside the greater Boston area and provide transportation via buses and minibuses operated by private transit service companies. RTAs, which are locally controlled, manage their own operations but must hire private operating companies to provide their services in accordance with Chapter 161B of the General Laws.

Section 53 of Chapter 6C of the General Laws makes the Rail and Transit Division (RTD) of the Massachusetts Department of Transportation “responsible for overseeing, coordinating and planning all transit and rail matters throughout the commonwealth,” including intercity buses, the MBTA, and RTAs. RTD carries out its responsibility of providing and managing financial assistance for RTAs through its Community Transit Program Unit, which oversees the federal, state, and local programs that financially support RTAs. State appropriations for the 15 RTAs increased from approximately \$70 million in fiscal year 2014 to approximately \$80 million in fiscal years 2016 through 2018.

### The Lowell Regional Transit Authority

The Lowell Regional Transit Authority (LRTA) was established in September 1974 and reports to RTD under Chapter 25 of the Acts of 2009, “An Act Modernizing the Transportation Systems of the Commonwealth.” According to LRTA’s senior management, the agency’s mission is to increase the use of regional mass transit. An administrator is responsible for day-to-day administration of the agency, which had five full-time staff members during our audit period. LRTA’s operations are overseen by an advisory

board made up of one member from each of the 14 communities<sup>1</sup> the agency serves. The advisory board is responsible for hiring an administrator, setting fares, establishing service levels, and authorizing real-estate purchases. For fiscal years 2016 and 2017, LRTA contracted with McDonald Transit Associates, Inc. and MV Transportation, Inc. to provide fixed-route and demand-response<sup>2</sup> transportation services, respectively, including maintenance and administrative functions.

During our audit period, LRTA's capital fund expenditures were \$2,622,862 for fiscal year 2016 and \$7,951,223 for fiscal year 2017. The table below shows the types of capital fund expenditures made by LRTA.

### LRTA Capital Fund Expenditures

Type of Expenditure	Fiscal Year 2016	Fiscal Year 2017
Building Improvements	\$ 2,063,785	\$ 2,905,854
Service Equipment	335,454	60,542
Transit Equipment	161,573	4,984,827
Service Vehicles	62,050	0
<b>Total</b>	<b><u>\$ 2,622,862</u></b>	<b><u>\$ 7,951,223</u></b>

In fiscal years 2016 and 2017, LRTA received revenue from a variety of sources, including fares from riders and assistance from various federal, state, and local sources. The largest source of funding is state contract assistance,<sup>3</sup> followed by local assessment<sup>4</sup> payments, fare and terminal revenue, and Federal Transit Administration (FTA) grants. The table below shows the types of funding LRTA received during the audit period.

1. The communities are Acton, Billerica, Carlisle, Chelmsford, Dracut, Dunstable, Groton, Lowell, Maynard, Pepperell, Tewksbury, Townsend, Tyngsborough, and Westford.
2. Demand-response transportation services are those that run on a flexible schedule and flexible routes based on the needs of RTA passengers with special needs.
3. Under Section 23 of Chapter 161B of the General Laws, the Commonwealth, through the Executive Office for Administration and Finance, can contract with an RTA to fund 50% of the net cost of the service the RTA provides. Known as state contract assistance, this funding is provided through the Commonwealth Transportation Fund and the Massachusetts Transportation Trust Fund.
4. Under Section 9 of Chapter 161B of the General Laws, annual local assessment payments are adjusted based on the "loss" (operating cost minus revenue) for each specific transit route and the activity and the share of that loss attributable to each town or city.



### LRTA Operating Funding Sources

Type of Funding	Fiscal Year 2016	Fiscal Year 2017
State Contract Assistance	\$ 3,608,306	\$ 3,608,306
Local Assessments	2,678,790	2,778,960
Fare and Terminal Revenue	2,594,619	2,531,007
Federal Grants	2,252,157	2,441,536
Other Funds*	228,250	235,733
<b>Total</b>	<b><u>\$ 11,362,122</u></b>	<b><u>\$ 11,595,542</u></b>

\* Other funds include shuttle fare reimbursements.

During our audit period, LRTA's operating costs were as follows.

### LRTA Operating Expenses

Type of Expense	Fiscal Year 2016	Fiscal Year 2017
Transit Service	\$ 9,443,896	\$ 9,501,784
Other Operating Expenses	1,934,701	2,036,505
Depreciation	2,912,273	3,202,603
<b>Total</b>	<b><u>\$ 14,290,870</u></b>	<b><u>\$ 14,740,892</u></b>

### Vehicle Fleet and Service Route Area

LRTA operates local fixed-route and demand-response services within the 282-square-mile Lowell area, serving a population of more than 300,000. It operates a network of 19 local transit routes, 11 of which are in Lowell, and 4 commuter routes. The local fixed-route service operates six days a week; weekday service runs from as early as 5:30 a.m. to 9:30 p.m., and Saturday service runs from 7:15 a.m. to 7:30 p.m. The table below shows the number of revenue-producing and non-revenue-producing vehicles<sup>5</sup> used at LRTA during fiscal years 2016 and 2017.

### Number of LRTA Vehicles

Vehicle Type	Fiscal Year 2016	Fiscal Year 2017
Revenue-Producing	97	108
Non-Revenue-Producing	11	9
<b>Total</b>	<b><u>108</u></b>	<b><u>117</u></b>

5. Non-revenue-producing vehicles are light-duty vehicles for temporary use by LRTA employees for agency-related business.

## Vehicle Maintenance

LRTA operates its administrative office and a maintenance facility in an approximately 70,000-square-foot building in Lowell. At the end of our audit period, LRTA had a total of 117 vehicles in its fleet. The table below shows the types and average ages of the vehicles in LRTA's fleet during the audit period.

### LRTA Vehicle Fleet Average Age

Make and Model	Vehicle Type	Vehicle Count	Average Age (Years)
Gillig Low Floor	Bus	57	7
Ford Transit	Paratransit Van	49	4
Ford F250	Truck	6	5
Ford E450	Minibus	2	5
GMC Sierra	Truck	2	12
Chevy Impala	Sedan	1	6
<b>Total</b>		<u>117</u>	

Below are the actual mileage and maintenance costs per vehicle for fiscal year 2017.

### LRTA Vehicle Mileage and Maintenance Expenses

Make and Model	Vehicle Count	Total Mileage	Labor Cost	Parts Cost	Total Maintenance Cost	Average Maintenance Cost per Vehicle
Gillig Low Floor	57	1,292,425	\$ 74,604	\$ 96,998	\$171,601*	\$3,011
Ford Transit	49	738,907	58,898	27,153	86,051	\$1,756
Ford F250	6	28,053	1,233	2,705	3,938	\$656
Ford E450	2	13,637	725	66	791	\$396
GMC Sierra	2	318	335	1,224	1,559	\$779*
Chevy Impala	1	1,877	113	160	272*	\$272
<b>Total</b>	<u>117</u>	<u>2,075,217</u>	<u>\$135,907*</u>	<u>\$ 128,306</u>	<u>\$264,213*</u>	

\* Discrepancies in totals are due to rounding.

FTA requires all RTAs to report to it any information related to their transit vehicle inventories or maintenance and repairs that they conduct. This information is included in FTA's National Transit Database. At the time of our audit, LRTA was using the Ron Turley Associates, Inc. Fleet Management Software to document all of its vehicle asset and expense information and report it to FTA.

## **LRTA Community Programs**

According to LRTA's website,

*The LRTA and [the University of Massachusetts Lowell] have entered into a six month partnership that will allow university students and faculty to ride the bus free of charge. [The university] will cover the cost of these rides.*

*All 18 routes, servicing fourteen communities throughout the Greater Lowell [area,] can be utilized during this pilot program.*

The website also states, "LRTA Bus Tracker offers a comprehensive system for LRTA customers to receive real-time bus information from their computer, tablet and smart phone." In addition, LRTA coordinates transportation for the councils on aging for several of its member communities.

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## AUDIT OBJECTIVES, SCOPE, AND METHODOLOGY

In accordance with Section 12 of Chapter 11 of the Massachusetts General Laws, the Office of the State Auditor has conducted a performance audit of certain activities of the Lowell Regional Transit Authority (LRTA) for the period July 1, 2015 through June 30, 2017.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Below is a list of our audit objectives, indicating each question we intended our audit to answer; the conclusion we reached regarding each objective; and, if applicable, where each objective is discussed in the audit findings.

Objective	Conclusion
1. Did LRTA maintain a cost maintenance log for each vehicle to ensure that preventive maintenance for vehicles and equipment for transporting passengers with disabilities under the requirements of the Americans with Disabilities Act of 1990 was up to date per Federal Transit Administration (FTA) guidelines?	Yes
2. Did LRTA submit all required financial records to the Commonwealth for inclusion on the Commonwealth's searchable website as required by Section 14C of Chapter 7 of the General Laws?	No; see Finding <u>1</u>
3. Did LRTA properly manage the use of its non-revenue-producing vehicles?	No; see Finding <u>2</u>

To achieve our audit objectives, we gained an understanding of LRTA's internal controls that we deemed significant to our audit objectives through inquiries and observations, and we evaluated the design of controls over cost maintenance logs, financial reporting to the Commonwealth, and non-revenue-producing vehicles.

In addition, we performed the following procedures to obtain sufficient, appropriate audit evidence to address the audit objectives.

- We analyzed the data in the Ron Turley Associates, Inc. (RTAI) Fleet Management Software maintained by LRTA, which documents all vehicle fleet maintenance and repairs, to determine

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whether all vehicles used and vehicle maintenance performed during the audit period were recorded in the database.

- We verified that both of the LRTA maintenance facilities had a vehicle maintenance schedule and tested a nonstatistical sample for each of the facilities to determine whether the agency followed the recommended schedule for preventive maintenance and replacement. For the first facility, we tested the records for 15 of the 67 vehicles that received maintenance at the facility during our audit period, choosing the 10 vehicles with the highest number of work orders and the 5 vehicles with the lowest number of work orders. For the second facility, we tested the records of 16 of the 54 vehicles that received maintenance at the facility during our audit period, choosing the 10 vehicles with the highest number of work orders and the 6 vehicles with the lowest number of work orders. We compared records of the mileage traveled per vehicle to records of oil changes performed during the audit period and tested to determine whether LRTA followed specific vehicles' manufacturer guidelines and the required FTA preventive maintenance guidelines.
- We extracted from the RTAI software a fleet inventory list and maintenance records. We used original maintenance work orders as well as copies as evidence to verify the information in the RTAI software-generated report. We reviewed a nonstatistical random sample of 7 of the 23 work orders for non-revenue-producing vehicles, which we compared to the data in the RTAI software. We also reviewed a nonstatistical random sample of 34 of the 557 work orders for LRTA vehicles used to provide transportation for several member communities' councils on aging, which we compared to the data in the RTAI software. Finally, we reviewed a statistical sample of 30 out of 1,721 work orders for revenue-producing vehicles, using a 95% confidence level and a 10% tolerable error rate, which we compared to the data in the RTAI software. The RTAI database included six work orders that did not have specific revenue-producing or non-revenue-producing vehicles assigned to them. We tested all of the unassigned vehicle work orders, which we compared to the data in the RTAI software and discussed with management to gain an understanding of them. We verified attributes of the work orders pertaining to the maintenance work performed and maintenance costs.
- We asked LRTA management about the use of non-revenue-producing vehicles and the process of lending a non-revenue-producing vehicle from the motor pool.
- We asked LRTA management whether the keys to non-revenue-producing vehicles were in the possession of the general manager of McDonald Transit Associates, Inc.; MV Transportation, Inc.; or LRTA personnel or were left in the vehicles.
- We requested and reviewed the sign-in/sign-out log for non-revenue-producing vehicles.
- We examined the state's publicly available, searchable website, as well as LRTA's website, to determine whether they included data for LRTA expenditures, including payroll, to ensure transparency with regard to the agency's spending.

We analyzed the RTAI Fleet Management Software by performing validity and integrity tests, including testing for missing data and scanning for duplicate records. We performed a source documentation review of the original hardcopy work orders to ensure that they matched the information in the RTAI

software. We determined that the data from this system were sufficiently reliable for the purposes of our audit.

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## DETAILED AUDIT FINDINGS WITH AUDITEE'S RESPONSE

### **1. The Lowell Regional Transit Authority did not submit required financial information to the Commonwealth to be made available to the public on a searchable website.**

The Lowell Regional Transit Authority (LRTA) did not submit required financial information about its operations (e.g., expenditures) to the Executive Office for Administration and Finance (EOAF) so this information could be made available to the public on a searchable website. Therefore, LRTA did not allow the Commonwealth to give the public a sufficient level of transparency regarding LRTA's operations, including its overall financial health and the nature and extent of its expenses.

#### **Authoritative Guidance**

Section 14C of Chapter 7 of the Massachusetts General Laws requires agencies, including quasi-public independent entities such as LRTA, to report their "appropriations, expenditures, grants, subgrants, loans, purchase orders, infrastructure assistance and other forms of financial assistance" to the Secretary of EOAF for inclusion on the Office of the State Comptroller's searchable website. Section 14C(e) states, "All agencies shall provide to the secretary all data that is required to be included in the searchable website not later than 30 days after the data becomes available to the agency."

#### **Reasons for Noncompliance**

In response to our draft report, LRTA senior management stated,

*The RTAs as a group proposed a low cost alternative to their participation in this initiative, which involved publication of the financial data on the RTAs' individual websites. Chapter 7, Section 14C under clause (g) contemplates and provides for the redirection of the public from the State's Open Checkbook website to other government websites as long as each of those websites complies with the requirements of this section.*

*The LRTA has made a concerted effort over the years to comply with the spirit and transparency goal of the Chapter 7, Section 14C "Open Checkbook (CTHRU)" initiative through the publication of its payroll and financial payment information, audited financial statements, and approved fiscal year budgets on its website in a searchable format. We believe the financial information currently contained on our website provides the public with a sufficient level of transparency regarding the LRTA's operations, including its overall financial health and the nature and extent of its expenses. As a matter of routine, we direct public requests for LRTA's financial information to the Open Government section of our website, which in most instances satisfies the public's request for information. In those rare cases a request for information is not contained on our website, we*

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*treat it as a Public Information Request and quickly respond to the individual, generally at no cost.*

## Recommendations

1. LRTA should develop formal policies and procedures for submitting this required information to EOAF.
2. LRTA should establish monitoring controls to ensure that the staff members assigned to this task adhere to these policies and procedures.

## Auditee's Response

*The LRTA with all other RTAs met with the State Comptroller's Office on Tuesday June 12, to figure a way to get the data quickly on the EOAF website, this initially by placing the LRTA's website URL for the open government data to be available as a link immediately. The next step to be taken is to work out the data submission time lines as even the state offices have differing schedules of submission. LRTA will develop its policy and monitoring controls once the time lines and final delivery criteria have been agreed to with the State Comptroller's Office. The LRTA is committed to open government and transparency.*

## Auditor's Reply

Based on its response, LRTA is taking measures to ensure that it reports this required information to EOAF.

## **2. LRTA did not properly document the use of its non-revenue-producing vehicles by its employees.**

LRTA did not properly document the use of its non-revenue-producing vehicles. Specifically, it did not properly document information such as the name and driver's license expiration date of the employee who used the vehicle, the trip's intended destination and purpose, the date and time the vehicle was picked up, the date and time it was returned, its license plate number, its description, its beginning odometer reading, its condition before and after use, any damage, and any maintenance issues identified during use, for every trip for all of its non-revenue-producing vehicles. According to LRTA records, its four non-revenue-producing vehicles were driven a combined total of 37,921 and 30,248 miles during fiscal years 2016 and 2017, respectively. As a result of the lack of monitoring of use, there is a higher-than-acceptable risk that these vehicles may be used for non-business purposes without detection.



## **Authoritative Guidance**

LRTA's oversight agency, the Massachusetts Department of Transportation (MassDOT), has a Motor Vehicles Policy, No. P-D0032-01, dated October 5, 2016, regarding the use of MassDOT's non-revenue-producing vehicles by its staff. This policy requires MassDOT management to maintain a log that documents the name and driver's license expiration date of the employee who used the vehicle, the trip's intended destination and purpose, the date and time the vehicle was picked up, the date and time it was returned, its license plate number, its description, its beginning odometer reading, its condition before and after use, any damage, and any maintenance issues identified during use. Although LRTA is not required to follow this policy, it represents a best practice in vehicle fleet management that LRTA should follow because it will allow the agency to more effectively manage the maintenance and proper use of these vehicles.

## **Reasons for Noncompliance**

LRTA management stated that the agency had an informal policy, verbally communicated to all staff members, that required employees to request the use of non-revenue-producing vehicles from LRTA's fleet director. They said they believed that the vehicles were adequately safeguarded from potential misuse because the fleet director was the only staff member who had the keys when employees asked to sign out the non-revenue-producing vehicles. LRTA does not have policies and procedures in place for the use of its non-revenue-producing vehicles or the monitoring of that use.

## **Recommendations**

1. LRTA should establish policies and procedures, consistent with those established by MassDOT, for its non-revenue-producing vehicles that require a log that documents the following:
  - a. the name and driver's license expiration date of the employee who used the vehicle
  - b. the date and time the vehicle was picked up
  - c. the date and time the vehicle was returned
  - d. the vehicle's license plate number
  - e. the vehicle description
  - f. the intended destination and purpose
  - g. the beginning odometer reading

- h. the condition of the vehicle before and after use
  - i. any damage
  - j. any maintenance issues identified during use
2. LRTA should ensure that these policies and procedures include monitoring controls to ensure that they are adhered to.

### **Auditee's Response**

*The LRTA will develop a policy and procedure manual for the use of its non-revenue-producing vehicles. The LRTA recognizes the importance of this policy and procedure manual to improve transparency and accountability in its daily operations.*

*The LRTA policy and procedure manual will incorporate best practices from other RTAs and MassDOT. At the same time, it will be tailored to the non-revenue-producing vehicles of the LRTA. This policy and procedure manual will include a log for those non-revenue-producing vehicles requiring such. This log will include all pertinent information regarding use, operator, and required vehicle information.*

*The LRTA policy and procedure manual will include monitoring controls to ensure compliance.*

### **Auditor's Reply**

Based on its response, LRTA is taking measures to address our concerns in this area.