

## V.4. Fleet Management



## V.4. FLEET MANAGEMENT

### V.4.1. DIRECTION DU MATÉRIEL ROULANT ET DES ATELIERS

#### 1. INTRODUCTION

The vehicle fleet of the City of Montréal is composed of light and heavy vehicles, as well as mobile equipment (generators, grass mowers, etc.). These vehicles are allocated to the boroughs and central departments for performance of various activities.

Following the municipal reform on January 1<sup>st</sup> 2002 and the changes made to the responsibilities of the Direction du matériel roulant et des ateliers in January 2006, the boroughs and central departments of the City of Montréal now manage their own vehicle fleet. Essentially, the boroughs created from the former suburban municipalities and the Service de police de la Ville de Montréal continue to oversee the management of the vehicles for which they were responsible for prior to January 1<sup>st</sup> 2002. In January 2006, the Direction du matériel roulant et des ateliers transferred ownership of its fleet and the corresponding budgets to the boroughs of the former City of Montréal and the central departments (other than the Service de police). At this point, it became a supplier of specialized products and services known as the Centre de services partagés—Matériel roulant et ateliers (CSP–MRA). The CSP–MRA had to adapt itself to meet the needs of its clients who have essentially remained the same ones it has constantly served in the past.

It is worth noting that the CSP–MRA carries out all centralized activities pertaining to the entire vehicle fleet. These encompass vehicle registration renewals and representations relating to compliance with the *Act Respecting Owners, Operators and Drivers of Heavy Vehicles*, which require periodical mechanical checks to be performed.

Vehicle maintenance and repair services are the principal duties of the CSP–MRA. The CSP–MRA also provides services related to vehicle acquisition and leasing, user training and fuel management. We limited the scope of our audit to registered vehicles.

Clients entrust the maintenance of nearly 3,300 vehicles to the CSP–MRA, the combined replacement value of which is roughly \$225 million. To serve its clients, the CSP–MRA runs three regional mechanical workshops (Madison, Des Carrières and Dickson), 13 freestanding

garages located in the public works yards of the boroughs of the former City of Montréal, 13 mobile units (travelling mechanics) and a specialized centre for firefighting vehicles (Viau).

In 2006, clients of the CSP–MRA were invoiced at a base rate that corresponded to a fixed rate per vehicle to cover its maintenance for a year. Gradually, this fixed rate was replaced with a fee-for-service system. Since September 2009, all work performed on vehicles has been invoiced on a fee-for-service basis.

Under this system, the expenditures of the CSP–MRA should be fully offset by revenues from clients and the year-end balance should be zero. For 2008 and 2009, the budget allocated to the CSP–MRA was \$49.9 million and \$51.7 million, respectively.

## 2. AUDIT SCOPE

The objective of this audit is to promote the sound management of activities related to vehicle fleet management. Accordingly, we examined vehicle maintenance and repairs, fuel procurement and distribution, and the inventory of vehicle replacement parts.

Our audit focussed mainly on all of 2008 and the period of January to October 2009. It was conducted in two boroughs created from the former suburban municipalities (Saint-Laurent and Verdun), two boroughs of the former City of Montréal (Mercier–Hochelaga-Maisonneuve and Rosemont–La Petite-Patrie), the Service de sécurité incendie de Montréal (vis-à-vis adherence to agreements signed with the CSP–MRA) and the Direction du matériel roulant et des ateliers (CSP–MRA) of the former Service des affaires corporatives. The audit was performed on registered vehicles only.

## 3. FINDINGS, RECOMMENDATIONS AND ACTION PLANS

### 3.1. ESTABLISHMENT OF THE CSP–MRA

#### 3.1.A. Background and Findings

In September 1996, city council created the mobile equipment and workshop fund (FMRA) to cover transactions related to the operation of the City's fleet of vehicle. The creation of this fund made it possible to comply with the *Manuel de normalisation de la comptabilité municipale au Québec* and to track costs as well as management decisions related to the vehicle fleet more efficiently. This fund was overseen by the Direction du matériel roulant et des ateliers.

When the municipal mergers came into effect on January 1<sup>st</sup> 2002, the fleet of vehicles that had belonged to the former City of Montréal was divided up among the former City's boroughs and the central departments, in accordance with their respective mandates. However, management under the FMRA continued, thus preventing the individual boroughs and departments from fully benefiting from these assets, the budget allocated to them and the spin-offs from their management decisions. As for the boroughs derived from the former suburban municipalities, they retained the vehicles that were previously under their responsibility.

However, the adoption of a more decentralized organizational model by the city administration confirmed the need to change this formula. In addition, the 2004 implementation of new allocation rules for the boroughs in the three-year capital program, including the funds related to the acquisition of vehicles, effectively rendered the FMRA operating procedure obsolete.

In the spring of 2004, as efforts to establish a new organizational model were under way, a working subcommittee developed a concept for a shared services centre (CSP). This approach was expected to support the boroughs and the central departments in fulfilling their respective mandates and responsibilities as well as increase their accountability. Furthermore, it would allow them to take advantage of existing expertise and economies of scale. This new organizational model is described in the document *Stratégie et plan d'affaires 2004-2006*, which was prepared by the CSP-MRA.

In order to present this new vision, an executive summary on the creation of the CSP-MRA was drafted in March 2005. It clearly specified the vehicle fleet management responsibilities of the various stakeholders and indicated the rationale behind the creation of the CSP-MRA, its key features and its core principles. According to this summary, decisions concerning vehicle fleet management were to be made by the managers of the concerned boroughs and central departments on the basis of their priorities, their activities and the needs of their employees.

Since January 1<sup>st</sup> 2006, each borough and central department has been responsible for its own fleet of vehicles. There is no longer an administrative unit in charge of overall fleet management.

**The March 2005 executive summary specified that service agreements addressing the needs and priorities of clients should be negotiated and reviewed annually.** It also indicated that these agreements were to cover basic services required to ensure vehicle maintenance (guaranteed business volume), as well as optional services (business volume as decided by the client). **Initially, agreements were prepared and presented to the clients of the CSP-MRA, but they were never signed by the clients. In the end, the only department**

to sign a vehicle maintenance and repair agreement with the CSP–MRA was the Service de sécurité incendie de Montréal (SSIM), doing so in January 2008.

Despite the absence of any agreement, the CSP–MRA has some information on the business volume of its clients, specifically budget-related figures and documentation from administrative units concerning the maintenance of their fleet of vehicles. This information also indicates whether the CSP–MRA will oversee the maintenance of each newly acquired vehicle (since 2008). In addition, a table showing the delegation of authority that is applicable to services rendered by the CSP–MRA was produced and submitted by the boroughs. **However, in our opinion, the development of an agreement would help improve the planning of staff requirements, business volumes and budgets to support the anticipated levels of service and provide a management framework for all dealings between the CSP–MRA and its clients.** It would serve to document and update all client requests (e.g., priority of repair work, cost estimates, type of information to be produced and required authorizations), commitments and services offered by the CSP–MRA (e.g., downtimes, service quality, warranties, communication of information, work schedules, invoicing) and the responsibilities of each stakeholder (role of the CSP–MRA with respect to the Gouvernement du Québec).

**FINDING**

**We ascertained that, with the exception of the SSIM, there is no signed agreement in place between any of the business units and the CSP–MRA to improve the planning of staffing requirements, business volumes and budgets to support the anticipated levels of service and provide a management framework for all dealings between the CSP–MRA and its clients.**

**3.1.B. Recommendations**

**We recommend that the Direction du matériel roulant et des ateliers, in conjunction with the administrative units concerned, establish agreements that include all the appropriate elements governing their business relationships in order to have a frame of reference in place to facilitate the fulfilment of their respective responsibilities.**

**3.1.C. Action Plan for the Business Unit Involved**

*[Translation] “When the CSP–MRA was created, we endeavoured to establish service agreements with each of our clients. Following an internal audit report in 2007 conducted by KPMG on the review of processes related to the operations of the Direction du matériel roulant et*

*des ateliers, we made a second attempt to establish agreements with our key clients, but that was also unsuccessful, except in the case of the Service de sécurité incendie de Montréal. It is important to realize that we do not have any flexibility in this regard. Clients wish to negotiate: they ask us for compensation for such things as vehicle downtimes. The CSP–MRA does not own any reserve vehicles to tide clients over while their vehicles are out of service. Unfortunately, we do not have the financial means to acquire a reserve fleet to accommodate our clients' needs in this respect. Our business model is based on a cost structure, not a profit-making structure, so we have no profit margins. This makes it impossible for us to negotiate and reach agreements satisfactory to both parties.”*

#### **3.1.D. General Auditor's Comments**

**If, as the CSP–MRA claims, an agreement with the business units is impossible to reach within the current parameters that define its business model, it is imperative that this deadlock be resolved through a meeting with the Direction générale.**

**At the time these comments were being written, a new associate director general for borough relations was about to be appointed. His or her mandate will be to ensure the consistency and coordination of actions among the boroughs and central departments. It would therefore be necessary to bring these conflicts to his or her attention, with the goal of finding some common ground between the parties.**

### **3.2. MISSION AND OBJECTIVES**

#### **3.2.A. Background and Findings**

Having a mission is one of the key elements needed to organize activities. It also serves as the foundation for all subsequent reporting. An effective mission statement identifies the clients to be served, the goods or services being offered and the overall desired target results.

Setting objectives not only provides guidance during the planning stage for activities, but also when assessing the results of any corrective actions. Relevant and reliable performance indicators must be established to measure the extent to which objectives have been met and support the related decision-making process.

The mission of the Direction du matériel roulant et des ateliers has been clearly defined in the budget documentation of the former Service des affaires corporatives. It reads as follows:

*[Translation] “A public entity managed according to private-sector practices that competes with public and private suppliers to offer:*

- *maintenance and repair services for light or heavy vehicles and related equipment to boroughs, corporate departments and the agglomeration of Montréal;*
- *repair and production services related to machining, sheet metal working, welding, street furniture, period furniture, electronic devices and screen printing;*
- *training services for operators of heavy vehicles;*
- *consulting services pertaining to vehicle acquisition and fleet management.”*

This documentation also includes commitments and achievements for the current year as well as targets for the following year (e.g., increasing productivity for trades employees by 2%, adhering to the specified repair times, reducing the unit cost of parts and materials used by 2%). Furthermore, the CSP–MRA monthly management report submitted to the management of the former Service des affaires corporatives reiterates these objectives and incorporates others that are more operational in nature (e.g., success rate in adhering to inspection and repair times for pre-scheduled work, implementation of fee-for-service invoicing for the maintenance and repair of central departments’ vehicles). For each of these objectives, a target expressed either in dollars, as a percentage or as a deadline is set. **Although we consider these objectives to be appropriate, we believe that others could be added to better reflect the activities undertaken by the CSP–MRA.**

**FINDING**

**Some objectives have not been specified for the entire range of activities carried out by the CSP–MRA:**

- **client satisfaction;**
- **adherence to repair estimates;**
- **adherence to vehicle downtime estimates;**
- **adherence to costs identified in fixed-rate packages.**

### 3.2.B. Recommendations

**We recommend that the Direction du matériel roulant et des ateliers formulate other measurable objectives, supported by performance indicators, to channel the efforts of its staff and attain the desired outcomes.**

### 3.2.C. Action Plan for the Business Unit Involved

*[Translation] “In January 2010, we established some 15 relevant objectives supported by performance indicators for the four CSP–MRA mechanical workshops.” (Planned completion: March 2010)*

## 3.3. BUDGET

### 3.3.A. Background and Findings

When the CSP–MRA was created, its objective was to operate at zero cost, i.e. to present an annual operating budget whose projected expenses were equal to its projected revenues. These expenses must therefore be offset by business volumes established with clients, and any goods and services provided by the CSP–MRA to accommodate its clients’ needs must be invoiced to them.

The boroughs of the former City of Montréal and the central departments prepare annual estimates for the services they plan to obtain from the CSP–MRA. For 2009, these estimates were \$41.5 million for vehicle maintenance and specialized services required from the CSP–MRA (e.g., joinery work, screen printing, metal work). However, the CSP–MRA felt that these units had underestimated the amount of work they would require and, consequently, included an additional \$10.2 million in its budget, for a total of \$51.7 million. This adjustment was based on the fact that, in 2007 and 2008, these units required more services than they had initially indicated (budgeted and actual revenues were \$47.3 million and \$51.2 million in 2007 and \$49.9 million and \$53.2 million in 2008). The additional estimates were \$4.4 million in 2007 and \$8.7 million in 2008.

**A review of the results achieved in 2007 through 2009 shows that the CSP–MRA was not successful in balancing its revenues and expenses. Its deficit was \$122,000 in 2007 and \$1,177,500 in 2008. The projected deficit for 2009 is roughly \$4.9 million.**

**Table 1—Budget Allocated to the CSP–MRA (Garages and Specialized Workshops)**  
*In thousands of dollars*

	2007		2008		2009	
	Budgeted	Actual	Budgeted	Actual	Budgeted	Actual (Aug. 2009 projection)
Revenues	47,396.7	51,243.9	49,935.6	53,255.2	51,703.1	46,856.3
Expenses	47,396.7	51,906.1	49,935.6	54,432.7	51,703.1	51,767.8
<b>Deficit</b>	<b>0.0</b>	<b>(662.2)</b>	<b>0.0</b>	<b>(1,177.5)</b>	<b>0.0</b>	<b>(4,911.5)</b>
Adjustment <sup>1</sup>	0.0	540.1	0.0	0.0	0.0	0.0
<b>Deficit after adjustment</b>	<b>0.0</b>	<b>(122.1)</b>	<b>0.0</b>	<b>(1,177.5)</b>	<b>0.0</b>	<b>(4,911.5)</b>

<sup>1</sup> When the initial 2007 budget was being prepared, the amount transferred to clients for the maintenance and repair of their vehicles did not take into account the increase in labour costs, although it was included in the CSP–MRA budget. To offset this omission, an amount of \$540,198 was given back to the boroughs and the Service de sécurité incendie de Montréal directly via the CSP–MRA budget.

An examination of the 2008 results indicates that the CSP–MRA generated higher revenues than anticipated but experienced an even greater increase in expenses, resulting in a deficit. For 2009, the CSP–MRA attributes most of the shortfall to a drop in its business volume. It appears that its clients now tend to call upon private companies more often for vehicle inspections or repairs and lease vehicles that come with maintenance services.

It is worth noting that the increase in the CSP–MRA deficit over the past few years correlates to the change in the fee system. The CSP–MRA shifted from a base rate in 2006 (annual fixed rate based on category of vehicle, e.g., \$5,000 a year for the maintenance and repair of a subcompact vehicle) to a fee-for-service system in 2009 (fees based on services rendered, e.g., \$92 per hour for the services of a mechanic).

On the basis of this report, the CSP–MRA calculates the productivity of its garage employees. In 2009, the target in this respect was 84% (percentage of total billable hours in relation to the total regular and overtime hours worked). The rate obtained as of June 30<sup>th</sup> 2009 was 79.1%. In 2008, the CSP–MRA observed a 3.6% increase in productivity in its garages.

**FINDING**

We were unable to obtain any details concerning how this percentage was determined. Our recalculations showed an increase in productivity of 2%, from 81% in 2007 to 83% in 2008. For employees assigned to generators, paint or body work, the rate was essentially the same as in 2009. The examination of this report also leads us to conclude that the total number of hours on the daily breakdown sheets does not correspond to the number of hours compensated. It is therefore possible that employees were paid for some hours that were not invoiced to CSP–MRA clients, primarily in 2008 and 2009, as the proportion of repairs invoiced on a fee-for-service basis has grown substantially since 2008. These variances might be due to input errors or the loss of some daily breakdown sheets.

Given the results obtained and the estimates for 2009, a turnaround plan was established in September 2009. This plan outlined several actions to be undertaken, including a freeze on hiring and overtime, staffing cuts and tighter cost controls.

**FINDING**

We ascertained that the effects of the turnaround plan action items were not quantified. Doing so would have enabled a measurement of their impact on the anticipated results and ensure that they contributed to remedying the situation. It should be noted that the turnaround plan does not extend to some of the services being offered, such as generator repairs, bodywork and paint.

It is unreasonable to expect the CSP–MRA to operate at zero cost in a municipal environment where factors drive labour costs upwards, thereby reducing competitiveness with the private sector. In fact, the executive summary produced at the time the CSP–MRA was established pointed out that this new way of operating posed a sizeable challenge for managers and constituted a significant departure from the existing organizational culture. It recommended the implementation of more efficient practices better adapted to the needs of both the organization and its clients. Consequently, in the current context, this new formula still clearly requires all stakeholders to develop innovative solutions so that the vehicle fleet can be managed cost-effectively from an organizational standpoint. These solutions must allow clients of the CSP–MRA to continue to enjoy savings from the improved management of their fleet while still taking into account the CSP–MRA's obligations to balance its budget and offer services aligned with its

clients' requirements. To make this objective achievable, the CSP–MRA must maintain a sufficient business volume.

### 3.3.B. Recommendations

We recommend that the Direction du matériel roulant et des ateliers assess the impact of the planned turnaround action items, ensure they make it possible to remedy the situation and examine any required additional measures that could be initiated to balance the budget as intended. These measures might involve, among other things, reviewing its service offering and raising awareness among the business units and the director general about the organization-wide consequences of an ever-diminishing business volume.

We recommend that the Direction du matériel roulant et des ateliers retain the documentation used to calculate its employee productivity rates for future reference and to shed light on the selected calculation method.

### 3.3.C. Action Plan for the Business Unit Involved

[Translation] “The CSP–MRA’s actual deficit of \$4.1 million in 2009 is primarily due to three factors:

- a significantly lower than average snowfall at the beginning and end of 2009;
- a loss of business volume to the competition;
- the transfer of fuel management to the CSP–MRA, without the ability to invoice clients for the related management and operating costs.

To date, the 2010 portion of the 2009–2010 winter season has had a serious negative impact on our revenues. The proposed turnaround measures will not enable us to achieve a balanced budget over the short term. This is why we revisited our business model in a report that was submitted to the director general. We schedule a meeting with him for late February to discuss this issue. **(Planned completion: December 31<sup>st</sup> 2010)**

Documentation [on employee productivity] has been kept on file since October 2009.” **(Planned completion: October 2009)**

### 3.4. FEE STRUCTURE

#### 3.4.A. Background and Findings

When the CSP–MRA was set up, the intention was to gradually convert the base rate system for its goods and services to a fee-for-service system. To implement the latter and ensure a complete cost recovery, an analysis was undertaken in 2005 that determined the hourly rate for mechanics and the mark-up applicable to the cost of parts and vehicle leasing services. The CSP–MRA took several factors into consideration, including the previous year's budget, employee productivity rates and competitors' rates. The hourly rate for mechanics was initially set at \$85, with a 30% mark-up for parts and a 5% mark-up for leasing services. The hourly rate and the mark-up on parts were subsequently adjusted in line with labour costs. As of 2009, the hourly rate was \$92 per hour for mechanics, the mark-up for parts was 35% and the mark-up for leasing services remained at 5%.

**These figures were revised in accordance with labour cost increases, but did not take into account the various factors used to establish them (e.g., the CSP–MRA budget, productivity rates, competition).**

#### **FINDING**

**Given the changes that have occurred since 2005, we believe that a comprehensive fee structure review is warranted to ensure that all relevant factors have been considered. Moreover, this review would enable the CSP–MRA to take into account the claims of clients about the excessive mark-up on parts, especially when such parts are costly.**

#### 3.4.B. Recommendations

**We recommend that the Direction du matériel roulant et des ateliers ensure the fairness of its fee structure by considering all of the relevant factors and taking into account the claims of clients with the ultimate goal of establishing a competitive fee system that would allow for complete cost recovery.**

#### 3.4.C. Action Plan for the Business Unit Involved

*[Translation] "In light of the changes that have occurred since 2005, we will review all of the factors used to establish our 2011 fee schedule." (Planned completion: October 2010)*

### 3.5. VEHICLE MAINTENANCE AND REPAIRS

To ensure that vehicles remain in good condition, regular maintenance and any required repair work must be performed promptly. In line with the operating procedure established in 2006, the CSP–MRA has become a shared service centre and must now execute any tasks requested by its clients in accordance with their requirements.

The clients of the CSP–MRA are mostly limited to the central departments and the boroughs of the former City of Montréal. Based on the invoices issued between January and October 2009, revenues from these clients totalled \$35 million. As for the boroughs created from the former suburban municipalities, para-municipal agencies and non-city clients, they accounted respectively for revenues of \$357,000, \$275,000 and \$162,000.

#### 3.5.1. APPLICATION OF BILL 430

##### 3.5.1.A. Background and Findings

As part of its daily operations, the CSP–MRA must fulfil its obligations under the *Act Respecting Owners, Operators and Drivers of Heavy Vehicles*.

This act was passed in June 1998 to govern road transport by heavy vehicles across Québec. Its purpose is to improve road safety and preserve the integrity of public roads. The Act requires owners and operators of heavy vehicles with a net weight in excess of 3,000 kilograms to be registered with the Registre des propriétaires et des exploitants de véhicules lourds. In addition, it provides for the evaluation and monitoring of their conduct on the road and at their workplace based on their individual files and pre-established criteria.

Following the merger of the municipalities on the Island of Montréal, the new fleet of vehicles for the newly-created City was registered to the City of Montréal. Accordingly, the City of Montréal is registered with the Registre des propriétaires et des exploitants de véhicules lourds of the Commission des transports du Québec.

Under this act, the SAAQ regulates the implementation of a preventive maintenance program (PMP) by vehicle fleet owners with specific requirements to ensure that vehicles remain in good mechanical working order. It is therefore the responsibility of each owner to either implement a PMP after having received the SAAQ certification or entrust said program to an authorized agent

in exchange for compensation. The participant must show that all PMP requirements have been met, namely that:

- preventive maintenance was performed in suitable, enclosed and heated facilities that allow access to the various parts of the vehicle;
- preventive maintenance was performed by qualified mechanics who have passed an SAAQ-recognized examination focussing solely on preventive maintenance;
- the PMP complies with government requirements on maintenance frequency, record keeping and the mechanical components to be maintained. Preventive maintenance frequency varies depending on the category of vehicle, the number of kilometres travelled per year and the weight of the heavy vehicle;
- preventive maintenance information and documentation for the last two years that the vehicle has been in use was signed by a qualified mechanic and kept on file.

In July 2000, the City of Montréal obtained its preventive maintenance certification, confirming its compliance with the PMP requirements. As a result, the City is authorized to apply the PMP, subject to all the rights and obligations under the Act and its regulations.

We performed various audits to ascertain that the obligations under the Act and its regulations were met, client appointments were kept and work performed by the CSP–MRA was completed within the allotted timeframe.

In order to conduct the necessary inspections, a schedule is prepared for all vehicles. According to the individuals we interviewed, discussions are held with the unit staff to ensure the suitability of the selected dates. Every week, an e-mail with colour code listing is sent to those responsible for each vehicle to notify them of overdue inspections (red), inspections scheduled within the next two weeks (yellow) and inspections upcoming within 15 to 30 days (green).

For clients that honour their designated appointments, the CSP–MRA has committed to carrying out inspections and any resulting repairs within a maximum of seven business days. According to the manager responsible for these operations, SAAQ-required inspections can be completed in approximately three hours. The additional time allotted by the CSP–MRA is used to perform any repairs required to ensure that the vehicle will remain operational until its next scheduled inspection date.

**The results of our audit showed that inspections are performed at the set frequency, that inspection sheets are prepared and that each vehicle has a file with past inspection and repair sheets.**

Monthly and annual reports are generated and submitted to managers to provide information on clients' adherence to their appointment schedule and the CSP-MRA's ability to abide by its seven-day downtime commitment to clients who respect their schedule. The CSP-MRA has apparently set a 75% target for compliance with this commitment. The monthly reports are supposed to be analyzed and adjusted in light of various factors, including work authorization periods (which are excluded from downtimes), discrepancies between the closing of work orders and return-to-service dates as well as delays caused by repairs unrelated to mandatory inspections that were included in the same work order. The CSP-MRA conducted the required analyses and adjustments for 2008, but failed to do so in the 2009 monthly reports. We were only informed of the required analysis and adjustment process on the basis of the monthly reports during the validation phase of our draft audit report.

**Our review of the 2008 annual report on clients' adherence to inspection schedules indicated that the percentage of appointments kept by clients at the Dickson and Des Carrières garages was 29% and 33%, respectively. As for honouring the maximum seven-day downtime for clients who kept their appointments, the CSP-MRA obtained a success ratio of 87% at the Dickson garage and 98% at Des Carrières. In 2009, the cumulative monthly reports sent to managers from January through August 2009 indicated that clients' appointment-keeping percentages varied from 17% to 47% (average of 31%) for the garage on Des Carrières and from 9% to 35% (average of 22%) for the Dickson garage. As for compliance with the seven-day downtime commitment for clients who honoured their appointments, it varied from 44% to 85% (average of 61%) for the garage on Des Carrières and from 30% to 80% (average of 57%) for the Dickson garage.**

**In relation to the turnaround time of seven business days, we observed that the target was achieved in 2008, but we were unable to confirm whether this was the case in 2009, as the required analyses and adjustments had not been performed by the end of that year.**

**FINDING**

**One observation is clear: the CSP-MRA has not updated its 2009 figures and cannot confirm whether it fulfilled its commitment to repair times for mandatory inspections. In our opinion, the required analyses and adjustments should be conducted more promptly so that managers have timely access to the information needed to take appropriate measures.**

Our review also indicated that there are inspection appointment schedules for light vehicles and that all work is performed in a timely manner for those vehicles maintained by the CSP–MRA.

### 3.5.1.B. Recommendations

We recommend that the Direction du matériel roulant et des ateliers, in conjunction with its clients, contemplate potential solutions to improve adherence to appointments for scheduled inspections in order to spread out its work load more efficiently and better honour its commitment to specified turnaround times.

We recommend that the Direction du matériel roulant et des ateliers conduct analyses and adjustments with respect to turnaround times for mandatory inspections in a timely manner so that managers have access to relevant information and are able to take any required corrective measures.

### 3.5.1.C. Action Plan for the Business Unit Involved

*[Translation] “Not only will we examine potential solutions, but we will also implement new ones as early as this spring. For example, we are setting up our first local garage in the Ville-Marie borough. In this case, our primary goal is to significantly improve the service provided to this borough by minimizing downtimes. To achieve this goal, our clients must keep their appointments for inspections, maintenance and repairs, and we must honour the turnaround times for servicing their vehicles. (Planned completion: April 2010)”*

*Analyses of 2009 monthly data showed that these figures included the time required for clients to authorize work.*

*Analyses and, where necessary, adjustments to data on turnaround times for mandatory inspections will be conducted on a monthly basis starting in February 2010.” (Planned completion: February 2010)*

## 3.5.2. FIXED-RATE PACKAGES FOR MAINTENANCE AND REPAIRS

### 3.5.2.A. Background and Findings

In order to offer a complete range of vehicle inspection, maintenance and repair services at a single price, the CSP–MRA developed a series of packages for the preventive maintenance of vehicles (oil changes, tune-ups, inspections). Currently, there are packages available for light

vehicles (that account for 30% to 40% of the fleet), certain heavy vehicles (street sweepers, compactor trucks, snowblowers, tracked ploughs) and certain pieces of equipment (spreaders and snowblower heads). As for inspections of heavy vehicles pursuant to Bill 430, the package was discontinued in early July 2009.

When establishing maintenance and repair packages, various operations are carried out such as reviewing the manufacturer-suggested inspection tasks, the history of work done and the number of hours involved as well as oil and parts costs. In addition, suppliers are contacted to inquire about their prices for comparable services. Package rates are then established on the basis of this information.

**FINDING**

**Our work showed that the supporting documentation used to determine package rates is kept on file, but there are no summaries detailing how these rates were calculated, the results of enquiries directed at competitors and explanations for variances between CSP–MRA costs and competitors' rates. These summaries would shed light on the approach taken to establish package rates and could serve as a basis for their review. Finally, a copy of these documents could be submitted to CSP–MRA management for approval.**

**We also examined whether the fixed-rate packages were sufficient to recover the costs incurred by the CSP–MRA.** To this end, in response to a request from the Mercier–Hochelaga-Maisonneuve borough, the CSP–MRA conducted a review to determine if the number of hours spent on work related to the fixed-rate package for street sweepers was comparable to the number of hours stipulated for that package. Based on this analysis, it was determined that 15% less time was actually spent on these tasks than had been estimated. Considering that this examination was limited to a single class of vehicles, we performed an independent review for other vehicle types as well (mainly light vehicles).

#### **FINDING**

Our additional review showed that the costs incurred in 12 of the 18 cases were 35% higher, on average, than the fixed-rate packages. The managers we interviewed indicated that the times provided for in the packages were very precise and that a mere 15-minute overrun could translate into a 25% cost increase (in this example, for a \$92 fixed rate, the overrun would be \$23). They also added that employees are sometimes helped by fellow workers who do not record their time in the corresponding work orders.

#### **3.5.2.B. Recommendations**

We recommend that the Direction du matériel roulant et des ateliers prepare a summary of the steps taken to establish the price of each fixed-rate package and have this document approved to ensure that it complies with its guidelines and contains relevant information on the selected calculation method to facilitate any subsequent reviews.

We recommend that the Direction du matériel roulant et des ateliers ensure adherence to the labour time stipulated in its packages and, in the event of any significant variations, take the corrective measures needed to provide efficient operations at competitive rates.

#### **3.5.2.C. Action Plan for the Business Unit Involved**

*[Translation] "In January 2010, we started preparing summaries of the steps taken to establish the price of fixed-rate packages. Once completed, these documents will be submitted to the management committee of the CSP–MRA for approval. (Planned completion: May 2010)*

*We will prepare a monthly management report highlighting significant variances in labour time used for a fixed-rate package compared with standard times. All appropriate measures will be taken to remedy the situation." (Planned completion: September 2010)*

### **3.5.3. ESTIMATION OF REPAIR COSTS**

#### **3.5.3.A. Background and Findings**

The CSP–MRA has been providing repair estimates upon request since 2008. In this respect, the audited boroughs prepared and submitted to their respective garage a delegation of authority

chart that indicates, among others, the amounts above which repairs would require authorization from a borough representative.

To prepare an estimate, a vehicle is inspected and the necessary repairs are listed in a quote. This quote is then submitted to the designated administrative unit representative for authorization. The MIR system is also equipped with a function that supports the preparation of quotes for any required repairs. Quotes must include details about the repairs, their corresponding cost estimate, the total repair amount and the client's authorizations.

Upon submission, borough representatives may accept or reject quotes or request changes to them. Their authorization must appear on approved quote while any rejected quotes must be cancelled altogether.

The monthly reports that are generated indicate, for each garage and client, the work orders for which estimates have been prepared, the total costs estimated, the actual cost of the work, the variations in percentage and their cumulative total. Charts are also prepared to highlight the overall variations between estimated and actual costs for the work performed in each garage.

**FINDING**

**Our review of the June 2009 monthly estimate report indicated that the garage on Des Carrières prepared 67 quotes with total cost estimates of \$101,504 and actual costs of \$151,023, i.e. a 49% variation. When examining individual estimates, we noticed that variations ranged from 1,211.7% to -91.7%. We further reviewed some of the estimates for a signification variation level. According to the manager we interviewed, these cases involved verbal authorizations for additional repairs and no one took the time to update these quotes accordingly. One situation with a negative variation level was apparently due to the fact that the quote should have been cancelled after the client had declined to proceed with the repairs.**

**FINDING**

**We also reviewed a sample of five cases to determine whether the required quotes had been prepared. Based on our examination, we did not find evidence of the existence of any quote. In these cases, we were told that verbal authorizations had been given or repairs had been made following a mandatory inspection.**

### 3.5.3.B. Recommendations

We recommend that the Direction du matériel roulant et des ateliers ensure that all garages prepare quotes using the system available for this purpose to facilitate subsequent follow-ups and record keeping.

We recommend that the Direction du matériel roulant et des ateliers update quotes and indicate the appropriate authorization information to support the production of relevant reports on the follow-up of these estimates and provide easy recourse to the necessary information in the case of any subsequent disagreements.

### 3.5.3.C. Action Plan for the Business Unit Involved

*[Translation] "All of the CSP–MRA garages will prepare quotes for work whose value exceeds the clients' preauthorized amounts using the system available for this purpose. (Planned completion: February 2010)*

*We will update quotes with the appropriate information, including the authorizations obtained." (Planned completion: March 2010)*

## 3.5.4. DELIVERY DATES

### 3.5.4.A. Background and Findings

During our audit, we also observed that work orders are intended to provide clients with a promised delivery date.

#### **FINDING**

We ascertained that this field is ignored. The representatives we interviewed indicated that, for the moment, they were not entering the promised delivery date. They will eventually provide this information after obtaining the business unit's authorization for repair.

#### 3.5.4.B. Recommendations

We recommend that the Direction du matériel roulant et des ateliers enter the delivery date promised to clients on work orders to help improve customer service and assess compliance with specified deadlines.

#### 3.5.4.C. Action Plan for the Business Unit Involved

[Translation] "Provided that clients keep their appointments, the delivery date promised to them will be entered into work orders:

- for all mandatory work;
- for all work on strategic equipment for snow removal, cleanliness and collection of household waste and recyclables." (Planned completion: April 2010)

### 3.5.5. CLIENT SATISFACTION

#### 3.5.5.A. Background and Findings

Now that clients have the option to utilize either the CSP–MRA or external suppliers to perform vehicle maintenance and repairs, their perception of the provided services and the corresponding costs have become deciding factors.

In recent years, the CSP–MRA has implemented various tools to determine and measure client satisfaction with its products and services. Accordingly, in the fall of 2007, a survey was conducted with target groups to assess their understanding of certain products and services offered by the CSP–MRA and measure their level of satisfaction with the products and services being provided. The intent was to use this information to support business development initiatives.

Out of the 451 people surveyed, only 77 of them replied, for a participation rate of 17%. The findings of the survey indicated, among other things, that 63.1% of respondents were satisfied with the quality of the work performed at the mechanical workshops and 43.6% were satisfied with the keeping of appointments for mandatory inspections.

**FINDING**

**It appears that certain actions were initiated in response to this survey, but no formal action plan was ever developed. No subsequent surveys were administered in 2008 or 2009. The CSP–MRA wanted to follow up with more targeted surveys, but its plans fell through.**

Other measures have also been adopted to accommodate clients' requests, including meetings between the head of the Division de la planification stratégique et relations d'affaires, the service managers of the municipal garages and the managers of certain boroughs. In addition, e-mails are being exchanged about certain issues. It should be noted that these meetings are limited to representatives of three boroughs (Mercier–Hochelaga–Maisonneuve, Rosemont–La Petite-Patrie and Ville-Marie) and focus on specific problems encountered in the course of their operations. Informal meetings were also held with representatives of Le Sud-Ouest and Ahuntsic-Cartierville boroughs. Finally, twice a year, the head of the Division de la gestion du parc de véhicules meets with the managers of the various business units to discuss their acquisitions and the management of their vehicle fleet.

**FINDING**

**During our audit, we ascertained that some clients have complained that repairs had been made before authorization had been given. This situation seems to occur from time to time, as employees have gotten into the habit of carrying out repairs without waiting for client authorization.**

According to the head of the Division de la planification stratégique et relations d'affaires, the main causes of client dissatisfaction are the lack of information on invoices, the 35% mark-up on the price of parts, downtimes and adherence to repair estimates. **However, we were not provided with any reports on client relations. A report of this nature could include the needs of the various clients and their satisfaction with the services being offered.**

Finally, some clients of the CSP–MRA told us that they would appreciate receiving timely detailed information on the work done upon vehicle delivery instead of waiting for invoices to obtain this information. They also mentioned that the costs of some repairs performed by the CSP–MRA were higher than those of external suppliers. Other clients indicated that some costs did indeed seem higher but that the CSP–MRA offered better service hours and that its garages were located closer to their operations.

#### **FINDING**

We ascertained that there is a mutual lack of documentation and reporting on these situations. We also observed that the business volume of the CSP–MRA has declined in comparison with the previous year and that the variance between its revenues and expenses for 2009 is estimated at nearly \$5 million.

#### **3.5.5.B. Recommendations**

In light of our findings, we recommend that the Direction du matériel roulant et des ateliers establish a suitable action plan in line with the needs expressed by its clients in order to develop strategies that will help increase its business volume.

#### **3.5.5.C. Action Plan for the Business Unit Involved**

*[Translation] “We have begun to develop an action plan for each of our clients. In the case of the Ville-Marie borough, we are about to implement one component of this action plan, i.e. a local garage. The main objectives of these action plans are to maintain our current business volume with these clients, to recover some or all of the business volume we have lost and to ensure that any new client needs are fulfilled by the CSP–MRA.” (Planned completion: April 2010 for the Ville-Marie borough)*

### **3.6. VEHICLE FLEET OF THE SERVICE DE SÉCURITÉ INCENDIE DE MONTRÉAL (SSIM)**

#### **3.6.1. SERVICE AGREEMENTS BETWEEN THE SSIM AND THE CSP–MRA**

##### **3.6.1.A. Background and Findings**

In the fall of 2007, the CSP–MRA of the former Service des affaires corporatives initiated discussions with the Service de sécurité incendie de Montréal (SSIM) to negotiate an overall agreement for the maintenance of the SSIM’s fleet of light and heavy vehicles in 2008. On December 21<sup>st</sup> 2007, the managers of the CSP–MRA and the Direction des ressources financières et matérielles (who negotiated on behalf of the SSIM) announced that an agreement in principle had been reached. Since it was the first year that this new operating procedure was in place, certain reference documents needed to be reworked and a final agreement was actually concluded on January 24<sup>th</sup> 2008.

The agreement is based on a fee-for-service system (fixed-rate package or fees for services rendered such as \$92 per hour for the services of a mechanic) for heavy vehicle maintenance

and a fixed-rate system (pre-set annual fees) for the maintenance of light vehicles. Prior to 2008, a fixed annual rate per vehicle category (e.g., \$5,000 a year for the maintenance and repair of a subcompact car) had been used for maintenance work.

As part of the review of activities, services, operations and programs (RASOP) in 2007, the Direction des ressources financières et matérielles of the SSIM proposed the implementation of a different management approach for its fleet of light vehicles. The ultimate goal of this re-engineering process was to provide a more personalized service that was better adapted to the reality of the SSIM at lower costs.

An overall budget for the basic maintenance of light vehicles was created and incorporated into the agreement. For 2008, the maximum overall maintenance costs for the fleet of light vehicles were set at \$650,000.

On January 15<sup>th</sup> 2009, the agreement was extended by both parties until the end of 2009, with minor changes in terms of the financial framework related to light vehicles and the addition of fixed-rate maintenance packages for light and heavy vehicles. The maximum overall maintenance costs for the fleet of light vehicles were then set at \$665,000.

Consequently, under agreements concluded in 2008 and 2009, the CSP–MRA agreed to provide the SSIM with the following annual services:

- technical support for the acquisition of vehicles;
- registration and visual identification of vehicles;
- file tracking;
- repair history;
- preventive maintenance program tracking;
- warranty tracking;
- mandatory inspection tracking (Bill 430);
- local multidisciplinary service for all types of repairs;
- specialized workshop services seven days a week;
- technical expertise regarding on-board devices (ladders, pumps, etc.).

These two agreements included a specific commitment on the part of the CSP–MRA regarding costs and performance goals. It also stipulated the need for all emergency vehicles (heavy and light) to undergo the inspections recommended by the Société de l'assurance automobile du Québec (SAAQ) as required under Bill 430. Mandatory periodic mechanical checks were to be

performed on all road vehicles of the SSIM, regardless of their net weight (heavy and some light vehicles).

In order to comply with legislation and fulfil its commitments, the SSIM indicated in both agreements that it reserved the right to request estimates from external suppliers and have them perform the work required, especially in the following cases:

- chargeable breakdowns (accidents, unforeseeable incidents, negligence, vandalism, etc.);
- SAAQ inspections coming due or past due;
- significant shortage of vehicles available to meet specified expected needs;
- disagreements about estimates.

The SSIM fleet is composed of the following vehicles:

**Table 2—Composition of the SSIM Vehicle Fleet**

Category of vehicle	As of October 27 <sup>th</sup> 2009	As of December 28 <sup>th</sup> 2008
<b>Heavy vehicles</b>		
Pumper trucks	94	88
Ladder trucks	64	62
Others	<u>37</u>	<u>37</u>
Subtotal	195	187
<b>Light vehicles</b>	<u>131</u>	<u>140</u>
Total	<u>326</u>	<u>327</u>

Our audit focussed on compliance with the provisions in the agreements concluded between the two parties in 2008 and 2009. Accordingly, we examined the management reports prepared by the SSIM, the financial framework of the agreements, the processes for obtaining the required repair authorizations and the invoices prepared by the CSP–MRA for maintenance and repair work on firefighting vehicles.

The following table indicates the number of vehicles for which the mandatory inspections (as required under Bill 430) were past due.

Table 3—Status of Inspections (Bill 430)

	As of October 27 <sup>th</sup> 2009	As of December 28 <sup>th</sup> 2008
<b>Heavy vehicles</b>		
Planned inspections	322	329
Vehicles inspected	<u>313</u>	<u>321</u>
Past due	<u>9</u> (2.8%)	<u>8</u> (2.4%)
<b>Light vehicles</b>		
Planned inspections	171	160
Vehicles inspected	<u>158</u>	<u>160</u>
Past due	<u>13</u> (7.6%)	<u>0</u> (0.0%)

**FINDING**

**We ascertained that the management report information pinpointed delays in mandatory inspections for heavy and light vehicles, thus indicating that the goals in this regard are not being met.**

An inspection plan for heavy and light vehicles was prepared by the SSIM and a schedule was attached to both agreements. The 2009 inspection schedule was planned over an 11-month period, leaving December 2009 free to accommodate, as necessary, any delays in mandatory maintenance. According to the managers of the CSP–MRA, all of the planned inspections were supposed to be performed by the end of 2009. The inspection schedule needs to take into account the number of units that must be in service on any given day. The SSIM prioritizes mandatory tasks as stipulated in Bill 430 (body work) and the National Fire Protection Association (NFPA) standards (pumper trucks, ladder trucks and bucket trucks). Consequently, it plans which vehicles must be kept in service to comply with the required minimums per vehicle category.

Management reports on vehicle downtimes during planned inspections compared with actual inspections were prepared by the Direction des ressources financières et matérielles of the SSIM and submitted approximately every two weeks to the managers of the CSP–MRA. Management at both the SSIM and the CSP–MRA pointed out that these management reports were discussed during informal meetings or telephone conversations. However, with the exception of the SSIM management reports on vehicle downtimes issued on October 27<sup>th</sup> 2009, the parties had no formal review process for these reports in 2009. The CSP–MRA analyzed them, but its analysis results were never validated with the SSIM. The CSP–MRA had the following comments on this matter:

- although management reports on vehicle downtimes only provide data pertaining to mandatory inspections, the CSP–MRA indicated on November 26<sup>th</sup> 2009 that it had performed 1,599 emergency repairs on in-service vehicles in addition to mandatory inspections and some 60 lubrication jobs on ladder trucks;
- the SSIM did not comply with its planned scheduled for mandatory maintenance that was prepared by its representatives and attached to the agreement.

Tables 4 and 5 show the average downtimes of vehicles according to the management reports prepared by the SSIM and the information received from the CSP–MRA following its analysis of these reports.

**Table 4—Average Downtimes for Heavy Vehicles**

	<b>Pumper trucks</b>	<b>Ladder trucks</b>	<b>Bucket trucks</b>	<b>Truck chassis</b>
<b>Target</b>	17.0 days	20.0 days	22.0 days	11.0 days
<b>Actual</b>				
CSP–MRA—Oct. 27 <sup>th</sup> 2009	20.3 days	37.5 days	61.0 days	15.8 days
SSIM—Oct. 27 <sup>th</sup> 2009	22.1 days	41.1 days	60.0 days	18.7 days
SSIM—Dec. 28 <sup>th</sup> 2008	18.9 days	28.4 days	45.0 days	14.1 days
<b>Variance</b>				
CSP–MRA—Oct. 27 <sup>th</sup> 2009	3.3 days	17.5 days	39.0 days	4.8 days
SSIM—Oct. 27 <sup>th</sup> 2009	5.1 days	21.1 days	38.0 days	7.7 days
SSIM—Dec. 28 <sup>th</sup> 2008	1.9 days	8.4 days	23.0 days	3.1 days
<b>Achievement of timeliness targets</b>				
CSP–MRA—Oct. 27 <sup>th</sup> 2009	45% <sup>1</sup>	20%	0%	46%
SSIM—Oct. 27 <sup>th</sup> 2009	37%	26%	0%	39%
SSIM—Dec. 28 <sup>th</sup> 2008	54%	35%	0%	54%

<sup>1</sup> 45% of maintenance work on vehicles was performed within the target turnaround time of 17.0 days.

Table 5—Average Downtimes for Light Vehicles

<b>Target</b>	2.0 days
<b>Actual</b>	
CSP–MRA—October 27 <sup>th</sup> 2009	4.3 days <sup>1</sup>
SSIM—October 27 <sup>th</sup> 2009	5.2 days
SSIM—December 28 <sup>th</sup> 2008	4.0 days
<b>Variance</b>	
CSP–MRA—October 27 <sup>th</sup> 2009	2.3 days
SSIM—October 27 <sup>th</sup> 2009	3.2 days
SSIM—December 28 <sup>th</sup> 2008	2.0 days
<b>Achievement of timeliness targets</b>	
SSIM—October 27 <sup>th</sup> 2009	23%
SSIM—December 28 <sup>th</sup> 2008	43%

<sup>1</sup> The managers of the CSP–MRA revised the figures on average downtimes for light vehicles by extracting data pertaining to light vehicles over seven years old, as specified in the agreement.

#### **FINDING**

Our examination of the figures in tables 4 and 5 indicated that the average number of days needed to perform mandatory maintenance work was not adhered to as stipulated in the 2008 and 2009 agreements between the SSIM and the CSP–MRA. This occurred despite the fact that a fair number of vehicles were replaced because they had reached the end of their useful life. Considering that the SSIM is responsible for public safety, emergency response, prevention, support and technical expertise pertaining to fire safety, firefighting and first responder services, inspection schedules must be followed to ensure that the required minimum number of in-service vehicles for each category of vehicle and equipment is always available, to guarantee their ability to respond to emergencies and to eliminate any risks of service disruption. Failure to comply with inspection-related objectives results in longer vehicle downtimes than those specified in the planned schedule and deprives the SSIM of its vehicles for the duration of these unexpected downtimes, thereby forcing it to reschedule its mandatory inspections and resort to its reserve vehicles.

Management reports prepared by SSIM managers indicate that the SSIM used the services of external firms for 23% of its mandatory heavy vehicle inspections in 2009 to comply with the planned schedule in the agreement or to avoid additional delays. As of October 27<sup>th</sup> 2009, this figure was broken down as follows:

Table 6—Use of External Firms

External suppliers	Pumper trucks	Ladder trucks	Bucket trucks	Truck chassis
Inspections performed	6.0	5.0	0.0	59.0
Target (days)	17.0	20.0	22.0	11.0
Actual (average number of days)	18.0	16.5	N/A	8.6

The targets set for mandatory heavy vehicle inspections performed by external firms are the same as those stipulated in the agreement with the CSP–MRA. However, a comparison of actual vehicle downtimes reveals the following differences:

Table 7—Actual Downtimes

	Pumper trucks	Ladder trucks	Bucket trucks	Truck chassis
CSP–MRA	20.3 days	37.5 days	61.0 days	15.8 days
External firms	18.0 days	16.5 days	N/A	8.6 days
<b>Variance</b>	<b>2.3 days</b>	<b>21.0 days</b>	<b>N/A</b>	<b>7.2 days</b>

**FINDING**

**Subject to the explanations provided below, the information provided in this table indicates that external firms perform mandatory inspections more promptly than the CSP–MRA and achieve practically all of the goals set by the SSIM at hourly rates that are lower than those of the CSP–MRA.**

The CSP–MRA managers explained to us that 41 heavy vehicles were inspected by external firms out of a total of 71 newer heavy vehicles (three years old or younger). Since inspections on newer heavy vehicles are performed more promptly than those reserved for older vehicles, the average performance of the CSP–MRA was adversely affected. In addition, the average downtimes indicated for work performed by external firms encompassed 16 heavy vehicles whose required work was actually covered under the manufacturer’s warranty, including significant vehicle design modifications.

The CSP–MRA managers also pointed out that the distribution network for heavy vehicle replacement parts is less developed than the network for light vehicle parts, due to the fact that the SSIM uses highly specialized equipment. Also noteworthy is the absence, in many cases, of

any specific catalogue for replacement parts, the lack of equipment standardization and, of course, the unavailability of many of these parts on the market.

The firefighting vehicle fleet owner (i.e. the City of Montréal) has a legal and contractual obligation to keep up-to-date records on each vehicle under its responsibility. The CSP–MRA and the SSIM keep electronic inspection, maintenance and repair files on each firefighting vehicle, provided that the related work has been performed by the CSP–MRA. **When mandatory maintenance work is performed by third-party contractors who detect and carry out additional repairs, this information stays with the SSIM and is not relayed to the CSP–MRA.** Technically speaking, all mandatory maintenance information and documentation certifying that observed defects have been repaired are to be kept on file at the SSIM. Two SSIM analysts are responsible for managing the maintenance and repair work of fleet vehicles and ensuring that vehicle records are up-to-date.

**FINDING**

**We ascertained that this approach deprives CSP–MRA managers of important information when repairs are performed subsequent to maintenance work carried out by external suppliers. For example, warranties on replacement parts may be overlooked during an emergency repair job done by the CSP–MRA.**

The SAAQ requires the implementation of a preventive maintenance program (PMP) that complies with the provisions of Bill 430 to ensure that heavy and light vehicles remain in good mechanical working order. We randomly selected four mandatory inspection reports for firefighting vehicles, two of which were performed by the CSP–MRA and two others that were performed by external suppliers. We confirmed that PMP maintenance sheets included a checklist in compliance with the SAAQ's *Regulation Respecting Safety Standards for Road Vehicles* and that they were completed by certified mechanics. Every item on these maintenance sheets was marked as being either "compliant" or "not compliant", in which case a list of repairs to be executed was provided. We also reviewed a sample of invoices for the replacement of defective parts identified during mandatory inspections. **The results of our audit showed compliance with the required standards under Bill 430.**

The 2008 and 2009 agreements also included a work estimation and authorization process. This contractual provision stipulated that both parties had to agree on the nature and costs of work to be performed and that agreed-upon estimates were considered to be final, except in cases when work had to be performed within a very short period of time. In these cases, the Division des

ressources matérielles et immobilières had to authorize “express” repairs estimated at \$500 or more (\$100 in 2008) for light vehicles and \$3,000 or more (\$1,000 in 2008) for heavy vehicles.

Our audit focussed primarily on the analysis of management reports prepared by the Direction des ressources financières et matérielles of the SSIM and forwarded to the CSP–MRA. These reports reconcile the invoices issued by the CSP–MRA for actual work performed with the corresponding estimates agreed-upon by both parties. Essentially, we compared these estimates with the actual costs of the repair work.

**FINDING**

**During the first two months of 2009, we noticed significant variations without any major corrective actions being initiated to address these cost overruns. From March 2009 and thereafter, cost overruns were not as significant, but were still present. Some of the invoiced amounts are currently under dispute because of work that was performed but never authorized or simply refused. The SSIM sent these disputed invoices to the CSP–MRA until July 2009, at which time the SSIM initiated reviews related to our audit.**

The following table summarizes the cases in which there were cost overruns as well as invoices under dispute.

**Table 8—Cost Overruns**

	<b>Light vehicles</b>	<b>Heavy vehicles</b>	<b>Total</b>
• Overruns—From December 28 <sup>th</sup> 2008 to March 2 <sup>nd</sup> 2009	\$20,700	\$213,530	\$234,230
• Overruns—From March 3 <sup>rd</sup> to early October 2009	\$31,720	\$35,670	\$67,390
• Disputed amounts—From March 6 <sup>th</sup> to July 23 <sup>rd</sup> 2009	\$0	\$65,110	\$65,110
<b>Total</b>	<b>\$52,420</b>	<b>\$314,310</b>	<b>\$366,730</b>

We audited a sample of five randomly selected invoices from all those involving overruns or disputed amounts. We ascertained that the reports prepared by the SSIM were consistent with the overrun amounts in question. Following a meeting between the management of the SSIM and CSP–MRA, an agreement in principle was reached, stipulating that the SSIM would absorb the entire write-off for the overruns incurred between December 28<sup>th</sup> 2008 and March 2<sup>nd</sup> 2009, for a total of \$234,230. Neither party could provide evidence of this write-off.

Since March 2009, we observed a clear improvement in cost estimates prepared by the CSP–MRA in relation to invoices for repair work. In fact, invoices for repairs are consistent with the estimates between the two parties to the tune of 92.5% for light vehicles and 98.8% for heavy vehicles. Referring to the estimates authorized for the invoice dated September 14<sup>th</sup> 2009, the SSIM’s mobile equipment manager indicated that frequently (i.e. roughly 50% of the time), more than one estimate had to be authorized. The CSP–MRA managers confirmed this SSIM assessment. They explained that the detection of mechanical or electronic problems on a vehicle regularly lead to other repairs that would have otherwise remained undetected. There are no studies or reports to check repairs that have required more than one estimate.

Finally, the agreements concluded between the two parties in 2008 and 2009 provided for the exchange of statistics compiled by each party to help track performance on a weekly basis. To date, the SSIM has received nothing but invoices from the CSP–MRA. In addition, the SSIM managers indicated that the quarterly meetings, also provided for in the partnership management committee agreement, were held only three times in 2009.

**FINDING**

**We determined that there are no minutes of the quarterly meetings provided for in the partnership management committee agreement.**

**3.6.1.B. Recommendations**

**We recommend that the Direction du matériel roulant et des ateliers align its business processes for the repair and maintenance of firefighting vehicles with best industry practices to optimize its operating procedures.**

**In light of these improvements, we recommend that the Direction du matériel roulant et des ateliers, in conjunction with the Service de sécurité incendie de Montréal, review the contents of their agreement to establish a financial framework that is consistent with their expectations. Specifically, we recommend that both parties:**

- set new terms for performance goals and costs to better reflect new operational realities;**
- describe specific contractual provisions (estimate management, management reports, vehicle downtimes, etc.) in further details to eliminate any ambiguities.**

Finally, we recommend that the Direction du matériel roulant et des ateliers record the minutes of the meetings held as stipulated by the agreement with the Service de sécurité incendie de Montréal to document the issues that were discussed and the decisions that were made.

We recommend that the Service de sécurité incendie de Montréal submit all relevant information on the maintenance and mechanical work performed by third parties on firefighting vehicles to avoid the payment of repairs that are covered under a warranty.

### 3.6.1.C. Action Plan for the Business Unit Involved

- **DIRECTION DU MATÉRIEL ROULANT ET DES ATELIERS**

*[Translation] “There are few comparable examples in Québec that would allow us to define best industry practices. The biggest maintenance and repair workshop for firefighting equipment is, by far, the CSP–MRA workshop. The maintenance of firefighting equipment (pumper trucks, ladder trucks, basket trucks) is a very specialized field, for which very few comparable scenarios exist. Furthermore, the private sector refuses to provide precise figures on its performance. The only comparable figures in the public sector in Canada would be those from Toronto, Calgary, Edmonton and Vancouver. Despite the lack of resources at our disposal to carry out this type of work, we will attempt to obtain data from these cities and ensure that they are indeed comparable to our situation and adapt our business processes whenever necessary. (Planned completion: December 31<sup>st</sup> 2010)*

*We agree to collaborate with the Service de sécurité incendie de Montréal to review the content of the 2011 agreement and attempt to find a financial framework that will be consistent with the expectations of both parties. It is important to note that our financial framework does not provide us with any significant leeway. Our business model is based on a cost structure, rather than a profit-making structure. We do not have the financial means to accommodate, for example, a request by the Service de sécurité incendie de Montréal to withhold 10% of the amount of our invoices during the negotiation process to resolve certain ambiguities. (Planned completion: January 2011)*

*Minutes of the meetings held pursuant to the service agreement with the SSIM will be recorded.” (Planned completion: February 2010)*

- **SERVICE DE SÉCURITÉ INCENDIE DE MONTRÉAL**

*[Translation] "We will systematically submit the list of maintenance and mechanical work performed by external suppliers on SSIM vehicles." (Planned completion: December 2009)*

### 3.6.2. HEAVY VEHICLE REPLACEMENT (SSIM)

#### 3.6.2.A. Background and Findings

According to the managers we interviewed from the Direction des ressources financières et matérielles of the SSIM, an ongoing program for the replacement of heavy firefighting vehicles was implemented in 2007. This program accounts for a significant investment under the three-year capital program. Additionally, given the prevailing annual fixed-rate system, it has become virtually impossible to take advantage of any savings related to the maintenance of these newer heavy vehicles. The purpose of this program is twofold. First of all, it assures service efficiency through the replacement of aging heavy firefighting vehicles. Secondly, it ensures compliance with the relevant National Fire Protection Association standard (NFPA No. 1901, Annex D) as well as the recommended standards of the Insurers' Advisory Organization (CGI). One of these CGI standards requires any city the size of Montréal to replace all heavy firefighting vehicles that have been in use for more than 20 years prior to the end of 2010. As a result, the SSIM found itself having to replace approximately 40 pumper trucks and 30 ladder trucks between 2007 and 2010, representing estimated investments of \$53,360,869. To this end, we reviewed management reports pertaining to the actual acquisitions of heavy vehicles to date and the corresponding three-year capital program.

#### **FINDING**

**Based on acquisitions from 2007 onward and our various discussions with SSIM managers, the projected heavy vehicle acquisitions of pumper trucks and ladder trucks will be completed by 2011.**

#### 3.6.2.B. Recommendations

**We recommend that the Direction des ressources financières et matérielles of the Service de sécurité incendie de Montréal (SSIM) undertake the necessary measures to replace its fleet of heavy vehicles in accordance with the requirements set forth in CGI's national policy.**

### 3.6.2.C. Action Plan for the Business Unit Involved

- *[Translation] “Confirming the overall status of the fleet in 2010 and preparing projections; (Planned completion: March 2010)*
- *Analyzing and defining the position of the SSIM with respect to the requirements of the CGI policy; (Planned completion: May 2010)*
- *Identifying the needs of the SSIM with supporting arguments; (Planned completion: May 2010)*
- *Raising awareness among the various authorities; (Planned completion: June 2010)*
- *Taking all pertinent decisions into account when planning the next three-year capital program.” (Planned completion: October 2010)*

## 3.7. FUEL PROCUREMENT, DISTRIBUTION AND RECONCILIATION

### 3.7.A. Background and Findings

The CSP–MRA manages 18 fuel tanks (one at the Montréal Botanical Garden, one at the municipal nursery and the remaining 16 in the public works yards of the boroughs of the former City of Montréal). In order to supply these tanks, the Direction de l’approvisionnement of the then Service des affaires corporatives of the City of Montréal issued a call for public tenders in November 2007 for the supply of fuel between December 1<sup>st</sup> 2007 and November 30<sup>th</sup> 2011.

In 2008 and 2009 (from January 1<sup>st</sup> to September 1<sup>st</sup> 2009), fuel consumption was, respectively, 10,738,148 litres (for a total of \$11,164,300) and 6,378,066 litres (for a total of \$4,859,783).

Fuel is distributed by way of an automated system. To obtain fuel, users must indicate their registration number, personal identification number, vehicle number, odometer reading (in kilometres) and pump number.

In June 2009, the CSP–MRA wrote to the director general of the City to inform him that the current fuel management system was obsolete and that an investment of \$1.5 million was needed for its replacement. In response, a three-year capital program was proposed, but it was rejected by the budget committee in the fall of 2009. As a result, the projected improvements cannot be executed.

The CSP–MRA produces monthly reports to the various users for monthly invoicing and fuel management purposes. These reports analyze fuel consumption, cases of topping off tanks that

were less than 10% empty and instances where vehicles were refuelled twice within a 24-hour period.

**FINDING**

Based on our analysis, we determined that the content of the fuel consumption reports should be improved. These reports do not distinguish between consumption per litre and consumption per hour nor do they indicate the standard rate of consumption per type of vehicle. In some cases, the consumption figures are inaccurate since users do not correctly enter the data from their odometer readings (they sometimes record tenths of kilometres even though this digit is not required). For example, if the odometer reading is entered as 16,023.0 at the outset (instead of 160,230) and 16,266.5 upon arrival (instead of 162,665), the total kilometres travelled would erroneously be indicated as 243.5, instead of the actual 2,435, thereby distorting the data.

The fuel inventory is measured regularly using an automated system that indicates the level of fuel in each tank. Manual inventory readings are also taken periodically to ensure the accuracy of the automated system output. Furthermore, the fuel management system is shut down once a year for a full inventory of all sites, and adjustments are made as required.

The fuel inventory is reconciled monthly based on the beginning and closing inventory, purchases and distributions. **Our review of the May 2009 reconciliation report confirmed its accuracy. This is also supported by various other documents.**

**3.7.B. Recommendations**

We recommend that the Direction du matériel roulant et des ateliers revise its report on fuel consumption with all the information needed to help those in charge analyze and ensure the relevance of the data being entered in order to better control fuel consumption and vehicle usage.

**3.7.C. Action Plan for the Business Unit Involved**

*[Translation] "The fuel management system has reached the end of its useful life. Its operating environment is obsolete. This recommendation will be addressed when this system is replaced."  
(Planned completion: December 31<sup>st</sup> 2010)*

## **V.4.2. MERCIER–HOCHELAGA-MAISONNEUVE BOROUGH**

### **1. INTRODUCTION**

This borough is responsible for a number of activities, including the acquisition, maintenance, repair and disposal of vehicles, fuel consumption and staff training. To execute these activities, it deals primarily with the CSP–MRA.

Annual investments planned under the borough's three-year capital program for the renewal of its fleet of vehicles amount to \$1.000 million, \$1.383 million and \$1.419 million for 2007, 2008 and 2009, respectively. Its operating budgets for 2008 and 2009 were respectively \$5.738 million and \$6.153 million.

In May 2009, the borough's fleet comprised 334 vehicles and machines, 330 of which were owned by the borough and 4 of which were leased. The vehicles and machines owned by the borough have a combined replacement value of \$22.9 million and their average age is 10.54 years. The estimated replacement value of the leased vehicles is \$354,000. These vehicles are managed by the Direction des services administratifs, in conjunction with the other administrative units of the borough (Direction des travaux publics, Direction de la culture, des sports, des loisirs et du développement social, Direction de l'aménagement urbain et des services aux entreprises).

### **2. AUDIT SCOPE**

The objective of our audit was to promote the sound management of all fleet-related activities. To this end, we examined vehicle acquisitions and leases, maintenance and repairs, fuel supply and distribution as well as vehicle disposal.

Our audit focussed primarily on the year 2008 and the period from January to November 2009.

### 3. FINDINGS, RECOMMENDATIONS AND ACTION PLANS

#### 3.1. ROLE AND RESPONSIBILITIES

##### 3.1.A. Background and Findings

The adoption of the new organizational model, as defined in the March 2005 executive summary, provided for the negotiation of a service agreement between the boroughs, the central departments and the CSP–MRA. Its goal was to define an administrative framework that would facilitate interactions among the various parties. The management of the former Service des affaires corporatives entrusted the CSP–MRA with the drafting of the agreement. A first draft was produced for the 2005 fiscal year (*Entente de services 2005*) and a second for 2006 (*Entente de services 2006*). These agreements were to specify the basic vehicle maintenance services (guaranteed business volume) and their costs (business volume as determined by the client).

The development of a draft agreement for the boroughs, central departments and the CSP–MRA entailed numerous meetings, proposals and counterproposals.

##### **FINDING**

**We ascertained that the parties have yet to reach a consensus that would lead to a signed agreement. This situation has had a significant impact on the quality of the relationship between the borough and the CSP–MRA.**

**In our opinion, despite the ongoing difficulties that arose between the borough and the CSP–MRA during these negotiations, it is nevertheless essential that such an agreement be concluded as it would provide a framework for all of the dealings between the borough and the CSP–MRA. It should serve to record and update all of the borough’s requests (e.g., repair priorities, required cost estimates, type of information to be produced and required authorizations). It should also detail the commitments and services from the CSP–MRA (e.g., downtimes, quality of service, warranties, dissemination of information, work schedules, invoicing). Finally, it should clearly delineate the responsibilities of every stakeholder (i.e. the role of the CSP–MRA with respect to the Gouvernement du Québec).**

### 3.1.B. Recommendations

We recommend that the borough management, in conjunction with the CSP-MRA, reach an agreement that not only covers all the elements governing their business relations, but also serves as a frame of reference to facilitate the fulfilment of their respective responsibilities.

### 3.1.C. Action Plan for the Business Unit Involved

*[Translation] “We will present the CSP-MRA with a proposed agreement to define the roles and responsibilities of each party with regard to specific elements, i.e. the SAAQ (Bill 430, registrations, special licences), quotes, repairs, warranties, fuel, the MIR system (reports, database), turnaround times, costs, inspections of new and leased vehicles, etc. (Planned completion: September 2010)*

*We will gradually conclude specific agreements with the CSP-MRA, including an agreement concerning the SAAQ (special licences, Bill 430, registrations, etc.).*

*We will ensure that these agreements define services, responsibilities, approaches, turnaround times, schedules and other key elements.”*

## 3.2. MANAGEMENT INFORMATION SYSTEM AND REPORTING

### 3.2.A. Background and Findings

Fleet management stakeholders must be aware of their assigned tasks and the priorities on which they should focus their efforts. In addition, they need a suitable information system as well as systematic, permanent reporting mechanisms that will enable them to assess the extent to which fleet management operations are consistent with specified expectations. Accordingly, management reports must be issued periodically and include relevant information on the evaluation of the results achieved during the specified period.

#### FINDING

We ascertained that the borough completely lacks a computerized management system to administer its vehicle fleet and process its operations in this regard, especially as pertains to acquisitions, maintenance and repairs as well as vehicle disposals. For the moment, the only electronic system used is an inventory record maintained by the financial and material resources management officer.

However, the CSP–MRA – which performs the maintenance and repairs on the majority of the borough’s vehicles and distributes most of the fuel for these vehicles – uses a maintenance, inspection and repair (MIR) system to manage vehicle maintenance and repairs as well as a fuel management system for the distribution of fuel. These systems allow the CSP–MRA to produce a number of reports, some of which are submitted to the borough, including:

- semi-annual inventory lists (*Grille décisionnelle de planification d'achat des appareils des clients du CSP–MRA*) that are available on demand to help borough managers determine which vehicles need to be replaced;
- bi-monthly invoicing reports that are comprised of invoices and copies of work orders which provide division managers with budget tracking data to control maintenance and repair costs (these reports are not reviewed by those responsible for fleet management);
- Fuel consumption reports that provide the head of the Division de la voirie with key data to be analyzed in order to determine any required actions (these reports are not used by those responsible for fleet management).

**Some CSP–MRA clients, including the borough, consider this information to be insufficient for the management of their fleet. They would like additional features that would allow them to extract and analyze invoicing data more efficiently.**

**FINDING**

**We noticed that clients of the CSP–MRA do not have all the information needed to efficiently manage their vehicle fleet.**

Accordingly, various changes will be made to the MIR system. New features that will meet the stated expectations will be integrated in early 2010. **These features will enable the borough to conduct analyses that were previously performed manually.** Electronic data on fuel consumption is still unavailable, thereby preventing the borough from analyzing this information.

At the end of November 2009, the borough introduced a computer application that compiles maintenance and repair costs per vehicle and supports searches in past work orders using keywords (e.g., brakes, windshield wipers, tire inflation, etc.). Currently, data is only available for work orders issued in 2008 and 2009. Tests have been conducted and the application is in its “run-in” stage, but managers cannot use it yet.

**FINDING**

**With the exception of certain specific reports and those produced by the CSP–MRA, the borough does not systematically produce fleet management reports, especially in terms of vehicles acquired and maintained by external suppliers or those that are leased on a long-term basis. However, maintenance, repair and fuel consumption issues are discussed during working meetings. The information used by managers is fragmented and experience-based, rather than being derived from a suitable information system.**

Sound vehicle fleet management requires reliable, relevant information that will strengthen management controls, especially those related to fleet planning, expense analysis and compliance with borough policies and guidelines. There should be a system that generates, at the very least, the reports that provide the valuable information needed and consequently support the decision-making process:

- reports on the history of usage costs per vehicle (cost per kilometre or hour of use) to establish suitable controls over maintenance expenses and develop a long-term fleet replacement strategy;
- periodic reports on fuel consumption costs per vehicle (number of litres per kilometre or hour of use) to help managers compare the fuel consumption of various vehicles;
- reports compiling usage costs per vehicle to determine the total annual costs for all vehicles used for a given activity and assess their performance;
- reports on vehicle downtimes for the ongoing analysis and systematic assessment of the time devoted to repairs and maintenance;
- reports on the frequency of repairs to help pinpoint improprieties in the use of municipal vehicles and assess the quality and reliability of any repair work that is performed.

**FINDING**

**We observed that several reports are missing, chief among them the reports indicated above. The lack of these types of reports prevents managers from producing complete analyses in a timely manner and from using this information to optimize their decision making. Consequently, the borough's management does not possess adequate information on the management of its fleet of vehicles (e.g., operating costs for vehicles that have exceeded their optimal service life). These reports should take into account vehicles serviced by external suppliers as well as those maintained by the CSP–MRA.**

### 3.2.B. Recommendations

We recommend that the Direction des services administratifs of the borough follow up with the CSP–MRA to expedite the development of the required features in the MIR system. It should advocate for the incorporation of maintenance and repair data for vehicles serviced by external suppliers into this system to support the production of relevant management reports that would foster informed decision making and improved vehicle fleet management.

### 3.2.C. Action Plan for the Business Unit Involved

*[Translation] “A first stage has just been completed with the development of an interface for the MIR system that will allow CSP–MRA clients (i.e. boroughs and central departments) to have direct access to digital invoicing data. We are currently at the user testing phase. (Planned completion: March 2010)*

*As for subsequent developments pertaining to needs that have already been identified by the boroughs and validated by the DSI, a project is being prepared, in conjunction with the DSI, which will be submitted to the DSI strategic planning committee for the approval of its financing and implementation.” (Planned completion: June 30<sup>th</sup> 2010)*

## 3.3. VEHICLE INVENTORY

### 3.3.A. Background and Findings

The vehicle inventory must include basic information on the vehicles owned by the borough (e.g., vehicle features, date of acquisition, age of vehicle, acquisition costs). This informs managers about the vehicles available for their operations and helps them make decisions about the replacement or disposal of vehicles. Consequently, this inventory must be comprehensive and updated regularly to remain current. Finally, a physical verification needs to be carried out periodically to ascertain the accuracy of the inventory.

The borough prepares an inventory list and sends it to the CSP–MRA to update the vehicle registry in the MIR and fuel management systems. This supports the tracking of requirements under Bill 430 and the registration of vehicles.

The borough’s inventory list is also maintained following the acquisition and disposal of vehicles.

In order to check the accuracy of data recorded in the borough's inventory list and the information in the MIR system, we compared one inventory list produced by the CSP–MRA's MIR system on November 9<sup>th</sup> 2009 with one produced by the borough on November 4<sup>th</sup> 2009.

**This reconciliation revealed 13 errors (3.8%):**

- the borough neglected to include five vehicles in its inventory;
- there were double entries for three vehicles (two different inventory numbers for each);
- the borough entered one vehicle that had been previously disposed of;
- the CSP–MRA list contained three vehicles that had been returned to their supplier;
- the CSP–MRA had removed one vehicle from its list which was still in service.

**FINDING**

**We determined that the borough's inventory is not regularly reconciled against data produced by the CSP–MRA's MIR system.**

**3.3.B. Recommendations**

**We recommend that the Direction des services administratifs regularly reconcile its inventory of vehicles against CSP–MRA data to detect any discrepancies and make the necessary corrections so that each administrative unit has up-to-date information about its vehicles and avoids operational delays.**

**3.3.C. Action Plan for the Business Unit Involved**

*[Translation] "We will reconcile our inventories against data from the CSP–MRA and the respective divisions twice a year and update our inventory at least once a month." (Planned completion: June 2010)*

### **3.4. ACQUISITION AND DISPOSAL OF VEHICLES**

The acquisition and disposal of vehicles must be preceded by an exhaustive needs analysis and supported by relevant criteria. These transactions must be consistent with existing City policies and procedures, and the rationale behind every decision must be clearly explained in the corresponding executive summaries prior to receiving authorization from the borough council.

The vast majority of acquisitions made by the borough are to obtain replacements for existing vehicles. However, a few vehicles are occasionally purchased to accommodate new needs.

Data from past years must be reviewed and analyzed (e.g., costs, usage, fuel consumption, unusual breakdowns) in order to make informed decisions and adequately plan these transactions.

### 3.4.1. ACQUISITION

#### 3.4.1.A. Background and Findings

The acquisition process begins with an assessment of the condition of the vehicles in the borough's fleet according to criteria selected by the borough managers (vehicle age, estimated useful life, kilometres travelled, etc.). To this end, the borough managers meet to analyze an array of information, including the report entitled *Grille décisionnelle de planification d'achat des appareils* that is prepared and distributed by the CSP–MRA managers.

Following these meetings, the number and type of vehicles that the borough managers wish to acquire are determined. The final decision is made in accordance with the available budget. Under its 2009–2011 three-year capital program, the borough was allocated \$1.419 million in 2009 and \$500,000 for 2010 and 2011. Of this amount, \$261,000 is earmarked for replacing vehicles required by the Division des services techniques et du soutien logistique aux installations, whose operations span the nine boroughs of the former City of Montréal.

In order to assess the pace of replacement of the borough's fleet, we looked at the data presented in three annual reports prepared by the CSP–MRA in the fall of 2006, 2007 and 2008. The average age of the fleet vehicles was respectively listed as 11.2 years, 11.0 years and 10.3 years.

#### **FINDING**

**Our examination of the most recent report we obtained (May 2009) revealed that the average vehicle age was 10.54 years, compared with an ideal average age of 8.63 years, for a variance of 1.91 years. In the opinion of the two individuals assigned to the management of the vehicle fleet, the investments planned for the coming years will be insufficient to keep the average age (10.54 years) of the fleet at its current level. Alternatives such as long-term vehicle leasing are currently being considered. However, we did not obtain any supporting documentation on variations in actual expenses related to vehicle acquisitions, replacement needs or long-term vehicle leasing.**

Should the borough decide to carry out the necessary replacements over the next four years on the basis of useful vehicle life (8.63 years), as recommended in the *Grille décisionnelle de planification d'achat des appareils de mai 2009* report released by the CSP–MRA, an investment of \$5.4 million would be necessary in 2009 (including the accumulated delay), \$1.3 million in 2010, \$1.3 million in 2011 and \$1.1 million in 2012. **If we take into consideration the \$1.419 million set aside under the three-year capital program, the investment deficit for 2009 will be \$3.981 million.**

**FINDING**

Our audit revealed that, although the borough has some information on its vehicle fleet, including the *Grille décisionnelle de planification d'achat des appareils* report, it lacks a capital master plan that considers all of the elements pertaining to vehicle fleet replacement. While the report produced by the CSP–MRA contains useful fleet information, including a list of vehicles per class, their life expectancy, a list of vehicles that have reached or exceeded their useful life span and vehicle maintenance costs, it lacks some key details. We found no indication of the targets to be achieved, the optimal composition of the vehicle fleet, the options to be considered in the case of a considerable delay in the implementation of the plan or guidelines for long-term vehicle leasing. Furthermore, this information is not included in any of the reports produced by the borough.

It is therefore more difficult to have a comprehensive understanding of the situation involving the vehicle fleet, the risk of insufficient long-term credit and alternatives that would enable the borough to have the vehicles necessary to execute its operations.

**3.4.1.B. Recommendations**

We recommend that the Direction des services administratifs, in conjunction with the other administrative units, establish a master plan that would include all of the elements related to the vehicle fleet in keeping with the borough's guidelines to support informed and timely decisions (acquisition, leasing, disposal).

**3.4.1.C. Action Plan for the Business Unit Involved**

[Translation] "We will develop criteria for acquiring or leasing vehicles based, for instance, on operational needs, the new types of vehicles on the market, the reliability of existing vehicles, the

*funds available under the three-year capital program, the priorities, the operational strategies and so forth.*

*We will also establish a three-year list of projected vehicle disposals and replacements (master plan) by division and type of vehicle.” (Planned completion: October 2010)*

### 3.4.2. DISPOSAL

#### 3.4.2.A. Background and Findings

To enable managers to justify vehicle disposals, the decision-making criteria must be well defined and the reasons justifying a disposal must be recorded and authorized.

The decision to dispose or not dispose of a vehicle must be carefully considered, given the repercussions on usage costs. A vehicle that is prematurely decommissioned must be replaced with a newly acquired or leased counterpart, whereas overextending its service life span can entail significant maintenance and repair costs that will never be recovered.

Currently, the disposal of the borough’s vehicles is shaped by several criteria, including vehicle age, overall condition, estimated repair costs in the coming months, safety and strategic importance. Finally, the actual budget available will also play a part in the decision to dispose of a vehicle.

A number of these criteria can be assessed using information found in the *Grille décisionnelle de planification d’achat des appareils des clients du CSP–MRA* report. For each type of vehicle, this report indicates the expected useful life span, age, fuel consumption, odometer reading, maintenance costs over the past year and identifies those vehicles that have exceeded their expected useful life, as determined by the CSP–MRA. During meetings held between the borough managers and those of the CSP–MRA, the CSP–MRA representatives submit this report and answer any questions the borough managers may pose.

To carry out the analyses necessary to replace a vehicle, borough managers must consider a range of data, including overall maintenance costs, fuel consumption and vehicle acquisition costs. This information is generated by the CSP–MRA’s systems. For the time being, the borough cannot readily extract the data it needs to perform these analyses.

In light of the designated criteria and the information submitted by the CSP–MRA, the borough managers determine, during the course of the year, which vehicles are to be earmarked for

disposal. The division head of the administrative department impacted then notifies the service manager of the CSP-MRA garage by e-mail of the vehicles being decommissioned to cancel their records in the MIR and the fuel management systems and to undertake the actions necessary to cancel their registration.

Finally, vehicle disposals are included in executive summaries submitted to the borough council for approval. These summaries indicate the vehicles targeted for disposal as well as the reasons behind these decisions.

**FINDING**

**We noticed that some last-minute vehicle substitutions had been made. Several vehicles whose disposal and auction were approved by the borough council were replaced with others that were not subject to the same approval process. Some of these vehicles were kept in service, sometimes for long periods of time.**

Here are specific examples that we observed during our audit:

- Vehicle #176-98175, the disposal of which was approved by the borough council, remained in service for 24 months prior to being sold. However, another vehicle with the same ID number was auctioned off;
- Two vehicles (#212-99015 and 212-99045), which were authorized for disposal by the borough council, were still in the inventory seven months later;
- Vehicle #177-98212, whose disposal had been authorized by the borough council, was retired from service 15 months later. During this period, the vehicle designated as its replacement was also in service.

The managers we interviewed indicated that such substitutions can be explained by the fact that vehicles earmarked for disposal are reassessed a few days prior to being auctioned off. When significant defects are observed after the initial decision, a substitution is made. **We feel that there may be, indeed, occasions when vehicle substitutions are justified. However, our audit revealed several instances of this practice, which we consider to be unusual.** Furthermore, given that the ID number of vehicles to be decommissioned is indicated in the executive summary that is submitted to the borough council for authorization, an amended executive summary containing the accurate information should be issued.

**FINDING**

Following our review of a sample of executive summaries related to the disposal of vehicles in 2009, we determined that these summaries included only a minimal explanation for the disposal of vehicles (write-offs, obsolescence or excessive repair costs) and did not provide sufficient justification (quantified analyses) to ascertain the real cause for their decommissioning.

Our audit also revealed that executive summaries were duly approved by the appropriate authorities (division heads, directors, elected officials).

**3.4.2.B. Recommendations**

We recommend that the Direction des services administratifs obtain approval for all vehicle disposals in a timely manner to avoid substitutions in the choice of vehicles to be decommissioned and ensure that the borough council receives the appropriate information for decision-making purposes.

We recommend that the Direction des services administratifs support its executive summaries for vehicle disposals with the required justifications in respect to the decisions made by the various authorities concerned.

**3.4.2.C. Action Plan for the Business Unit Involved**

*[Translation] "Guidelines on the procedures for the decommissioning and disposal of vehicles are being developed. Vehicle decommissioning and disposals will continue to be authorized through executive summaries when vehicles are ready to be sold. (Planned completion: June 2010)*

*We will attach to the executive summaries an assessment of the condition of the vehicles, including their age, the number of kilometres travelled or hours of use and their expected useful life span, as well as an explanation or rationale for their disposal (e.g., discontinued operation, high repair costs, obsolescence or safety hazard)." (Planned completion: March 2010)*

### 3.5. INVOICING

#### 3.5.A. Background and Findings

The invoices generated must be accurate and allow for the easy tracking of all information required to manage vehicle maintenance and repairs. The borough receives invoices from its external suppliers and from the CSP–MRA.

**Handwritten invoices from external suppliers are kept in the file of the corresponding vehicles for future reference.**

The CSP–MRA submits invoices twice a month (at the beginning and in the middle of the month). Every invoice contains a summary for each category of expenses (maintenance, leasing, administrative fees, etc.), a breakdown by cost centre (department) and any existing work orders. These work orders can be two, three or sometimes four weeks old.

#### **FINDING**

**We ascertained that the invoicing system is designed first and foremost to accommodate the needs of the SIMON accounting system, rather than those associated with fleet management. For example, the invoices present maintenance and repair costs by expense category rather than by vehicle.**

#### **FINDING**

**We noticed that the Direction des services administratifs did not verify work orders. They were submitted to the Direction des travaux publics without any systematic invoice verification. The managers we interviewed indicated that they did not receive the work orders in a timely fashion, which limited their ability to compare the work requested with the work executed by the CSP–MRA.**

**FINDING**

**We observed that the content of work orders did not allow users to easily ascertain the actual work performed:**

- **repairs are not described by type of work (fixed-rate packages) or major vehicle components (engine, transmission, brakes, cooling system, etc.);**
- **descriptions are not always explicit (check components, repair throttle, etc.);**
- **work orders are in PDF format, thereby precluding any file manipulation or analyses such as time comparisons per type of repairs or against standard time frames;**
- **initiation and completion dates are not always indicated;**
- **vehicle entry and exit dates are not indicated since there are no specific fields for these values;**
- **repairs done on one vehicle are occasionally recorded in another vehicle's work order.**

**CSP–MRA invoices are produced using the MIR system, which was scheduled for several updates in early 2010.** These changes were to make it simpler for the borough to analyze invoicing-related data.

The borough did not wait for the CSP–MRA to upgrade the MIR system. It developed its own invoicing application that compiles maintenance and repair costs per vehicle and supports searches in work orders using keywords (e.g., brakes, windshield washers, tire inflation, etc.). Currently, data is only available for work orders issued in 2008 and 2009. This application is still in its “run-in” stage and managers cannot use it yet.

All external suppliers that provide vehicle maintenance and repair services to the borough deliver the serviced vehicles along with the corresponding invoices for the work they performed. As a result, vehicle owners can easily check that the billed costs match the estimate that was agreed upon with the supplier. In case of any discrepancy, the required adjustment can be made more quickly to the satisfaction of both parties. We believe that the implementation of a similar procedure at the CSP–MRA would be beneficial and would help settle many of the disputes that arise between CSP–MRA and borough managers.

### 3.5.B. Recommendations

We recommend that the Direction des services administratifs impress upon the CSP–MRA the importance of obtaining duly completed work orders when vehicles are delivered. This would allow the managers concerned to validate that the agreed-upon work was performed at the estimated cost and, in the case of any discrepancy, make the appropriate corrections as quickly as possible.

We recommend that the Direction des travaux publics check and authorize all invoices received to ensure they are accurate and to have them corrected as needed.

We recommend that the borough take the necessary measures to compile, for each vehicle, a list of maintenance and repair costs charged by external suppliers to provide useful information for decision-making purposes.

### 3.5.C. Action Plan for the Business Unit Involved

*[Translation] “We will send a memorandum to Guy Charbonneau, head of the Direction du matériel roulant et des ateliers, to inform him that we wish to obtain work orders (invoices) within 24 hours of a vehicle’s discharge from a CSP–MRA garage.*

*In addition, we will ask the CSP–MRA to enter the work order number on the approved estimate. (Planned completion: March 2010)*

*Given the major delays in receiving invoices, we will validate invoices for major repairs upon receipt.*

*As long as invoices are issued as vehicles are being discharged from the garage, we will check each invoice for repairs requested, made and invoiced and take appropriate action to rectify any discrepancies. (Planned completion: June 2010)*

*We will enter the invoices for repair work done by external suppliers into our cost-tracking system for repairs carried out by the CSP–MRA. This task will require the involvement of a programmer and an office clerk.” (Planned completion: June 2010)*

### **V.4.3. ROSEMONT–LA PETITE-PATRIE BOROUGH**

#### **1. INTRODUCTION**

This borough is responsible, among others, for the acquisition, maintenance, repair and disposal of vehicles, fuel consumption and staff training. To this end, it deals primarily with the CSP–MRA. However, it is increasingly turning to external service providers.

Under its three-year capital program, the projected annual investments for the renewal of its vehicle fleet have stood at \$1.6 million since 2007. In addition, the borough relies on long-term leasing to ensure the availability of a sufficient number of vehicles and meet its operational needs. Its operating budget was \$5.7 million in 2008 and \$6.4 million in 2009.

In May 2009, the borough's fleet was comprised of 340 vehicles and machines, 298 of which were owned by the borough and the remaining 42 were leased. The vehicles and machines owned by the borough have a combined replacement value of \$21.6 million and an average age of 8.62 years. The estimated replacement value of the leased vehicles is \$5.2 million. These vehicles are managed by the Direction des services administratifs, in conjunction with the other administrative units of the borough (Direction des travaux publics, Direction de la culture, des sports, des loisirs et du développement social, Direction de l'aménagement urbain et des services aux entreprises).

#### **2. AUDIT SCOPE**

The objective of our audit was to promote the sound management of all fleet-related activities. To this end, we examined vehicle acquisitions and leases, maintenance and repairs, fuel supply and distribution as well as vehicle disposal.

Our audit focussed primarily on the year 2008 and the period from January to October 2009.

### 3. FINDINGS, RECOMMENDATIONS AND ACTION PLANS

#### 3.1. ROLE AND RESPONSIBILITIES

##### 3.1.A. Background and Findings

The adoption of the new organizational model, as defined in the March 2005 executive summary, provided for the negotiation of a service agreement between the boroughs, the central departments and the CSP–MRA. Its goal was to define an administrative framework that would facilitate interactions among the various parties. The management of the former Service des affaires corporatives entrusted the CSP–MRA with the drafting of the agreement. A first draft was produced for the 2005 fiscal year (*Entente de services 2005*) and a second for 2006 (*Entente de services 2006*). These agreements were to specify the basic vehicle maintenance services (guaranteed business volume) and their costs (business volume as determined by the client).

The development of a draft agreement for the boroughs, central departments and the CSP–MRA entailed numerous meetings, proposals and counterproposals.

##### **FINDING**

**We ascertained that the parties have yet to reach a consensus that would lead to the signing of an agreement. This situation has had a significant impact on the quality of the relationship between the borough and the CSP–MRA.**

In our opinion, despite the ongoing difficulties that arose between the borough and the CSP–MRA during these negotiations, it is nevertheless essential that such an agreement be concluded. **It would provide a framework for all of the dealings between the borough and the CSP–MRA. It should serve to record and update all of the borough’s requests (e.g., repair priorities, required cost estimates, type of information to be produced and required authorizations). It should also detail the commitments and services from the CSP–MRA (e.g., downtimes, quality of service, warranties, dissemination of information, work schedules, invoicing). Finally, it should clearly delineate the responsibilities of every stakeholder (i.e. the role of the CSP–MRA with respect to the Gouvernement du Québec).**

### 3.1.B. Recommendations

We recommend that the borough management, in conjunction with the CSP–MRA, reach an agreement that not only covers all the elements governing their business relations, but also serves as a frame of reference to facilitate the fulfilment of their respective responsibilities.

### 3.1.C. Action Plan for the Business Unit Involved

*[Translation] “We agreed with the principle and took part in discussions, but the last draft agreement proposed in 2006 by the CSP–MRA imposed onerous responsibilities on us without specifying any commitments on its part in terms of performing services and was therefore never ratified. In our opinion, the responsibility for reaching a supplier/client agreement should lie with the supplier (CSP–MRA) rather than the client (boroughs). We also believe that a master agreement should be established for all boroughs. Nevertheless, we are still ready to resume talks with a view towards concluding a service agreement. To this end, we will call a meeting between our designated representatives and those of the CSP–MRA.” (Planned completion: March 2010)*

## 3.2. MISSION AND OBJECTIVES

### 3.2.A. Background and Findings

Having a mission is one of the key elements needed to organize activities. It also serves as the foundation for all subsequent reporting. An effective mission statement identifies the clients to be served, the goods or services being offered and the overall desired target results.

Setting objectives not only provides guidance during the planning stage for activities, but also when assessing the results of any corrective actions. Relevant and reliable performance indicators must be established to measure the extent to which objectives have been met and support the related decision-making process.

**FINDING**

**Our review of the mission statements of the various borough departments showed that none of them even discussed vehicle fleet management. However, we noticed that the mission statement of the Direction des services administratifs positioned it "as an expert consultant in financial and material resources" for the borough. Moreover, we ascertained that the Direction des services administratifs had hired an engineer dedicated to the management of the borough's vehicle fleet.**

Given this situation, we believe that the responsibility for the management of the borough's fleet of vehicles should be defined in the mission statement of every administrative department involved. This would clarify the roles and responsibilities of all borough stakeholders with respect to vehicle management.

**The only specific, documented objectives that we were able to obtain were those related to budget targets.** However, the managers we interviewed pointed out that borough departments are also concerned with other "unofficial" objectives, including the updating of the vehicle fleet, the reduction of maintenance and repair costs, the increased availability of vehicles, the control of fuel consumption and the reduction of complaints from residents. They indicated that these objectives and the progress made to achieve them were discussed during working meetings and that corrective actions were initiated when necessary. For example, according to the information produced by the CSP–MRA on the updating of the fleet, the average vehicle age has been lowered from 10.12 years in 2006 to 8.62 years in 2009.

**FINDING**

**Following our review of the information specified in the above paragraph, we determined that the mission statements and objectives concerning vehicle fleet management should be defined and shared with all personnel. More specifically, objectives should be approved by the borough management, stated in measurable terms, supported by performance indicators and applied to all operations.**

### 3.2.B. Recommendations

**We recommend that the borough management ask each of the departments concerned to update their mission statement with a clear definition of their role as a vehicle fleet manager and to pursue measurable objectives supported by performance indicators as a way to channel the efforts of employees towards achieving the desired outcomes.**

### 3.2.C. Action Plan for the Business Unit Involved

*[Translation] “We agree with this recommendation. Our corrective actions can be divided into three steps:*

- 1) reviewing the mission statements of the concerned departments in order to reflect their role in managing the fleet of vehicles;*
- 2) creating an organizational chart that will specify the operational positions with management responsibilities and the functional positions with an advisory or support role;*
- 3) developing performance indicators based on the available data and establishing measurable objectives in relation to these indicators.” (Planned completion: June 2010)*

## 3.3. ACQUISITION AND DISPOSAL OF VEHICLES

### 3.3.1. MASTER PLAN

#### 3.3.1.A. Background and Findings

In order to assess the pace of replacement of the borough’s fleet, we looked at the data presented in three annual reports prepared by the CSP–MRA dated from November 2006, 2007 and 2008. The average age of the vehicles in the borough’s fleet were respectively listed as 10.12 years, 9.85 years and 9.12 years. However, a more recent report (May 2009) showed the average age to be 8.62 years as opposed to the ideal average age of 8.0 years, for a variation of 0.62 years. According to the managers we interviewed, the updating of the fleet in recent years is due to the fact that the borough disposed of a number of older vehicles and leased others using amounts set aside in its operating budget. They indicated that, given the limited funds earmarked for replacement vehicles, the borough increasingly resorts to long-term leasing to offset this variance.

**FINDING**

**We found no evidence that confirms the variations between actual expenditures for the acquisition of vehicles and replacement needs or that explains the position taken on long-term leasing of vehicles.**

Should the borough decide to carry out the necessary replacements over the next four years on the basis of useful vehicle life, as recommended in the *Grille décisionnelle de planification d'achat des appareils de mai 2009* report released by the CSP–MRA, an investment of \$5 million would be necessary in 2009 (including the accumulated delay). When taking into consideration the \$1.615 million set aside under the three-year capital program, the investment deficit for 2009 will be \$3.385 million.

**FINDING**

**Based on the results of our audit, we noted that the borough does not have a capital master plan in place that takes into account all of the elements relevant to fleet replacement. The borough does have, however, some information on its vehicle fleet, including the *Grille décisionnelle de planification d'achat des appareils* report.**

**3.3.1.B. Recommendations**

**We recommend that the Direction des services administratifs, in conjunction with the other administrative units, establish a master plan that would include all of the elements related to the vehicle fleet in keeping with the borough's guidelines. Such a plan would support informed and timely decisions (acquisition, leasing, disposal).**

**3.3.1.C. Action Plan for the Business Unit Involved**

*[Translation] "We agree with this recommendation. During the preparation of our next three-year plan for vehicle acquisition (2011–2013), we will draft a master plan to document the guidelines to be followed, based on the information related to vehicle fleet management available at that time. The implementation of a master plan as a permanent working tool will enable us to develop strategies over a longer-term horizon." (Planned completion: December 2010)*

### 3.3.2. ACQUISITION PROCESS

#### 3.3.2.A. Background and Findings

Vehicle acquisition began shortly after the adoption of the three-year capital program by the borough council. Our audit focussed on ensuring that managers followed the existing procedures and abided by the *Cities and Towns Act* (section 573) with respect to the acquisition process. To this end, we reviewed the acquisition of four vehicles.

**Table 9—Vehicle Acquisition**

Item #	Vehicle ID number	Description	Type of acquisition	Amount
1	539-07321	Street sweeper/vacuum truck	Call for public tenders	\$193,703
2	825-07189	Snowblower	Private tender	\$77,658
3	414-08379	Tractor	Invitational tender	\$73,339
4	414-09401	Tractor	Invitational tender	\$95,168

For these vehicles, we ascertained the existence of key controls at various stages of the acquisition process, including the:

- specifications;
- suppliers' bids;
- selection of the lowest compliant bidder;
- executive summaries for the borough council (when applicable).

In all of the cases we examined, the funds necessary for the purchases were part of the borough's three-year capital program or operating budget and the vehicles were delivered within a reasonable time frame.

**FINDING**

For the acquisition of the snowblower, we noticed that the borough proceeded by way of a private agreement rather than an invitational tender. The managers justified their decision by pointing out that the first snowblower they purchased in 2004 was the result of a call for public tenders and that they deemed it important to procure the same brand as the models currently owned by the borough to promote consistency in the equipment used. This explains why the managers did not issue an invitational tender and placed an order with the manufacturer instead. It should be noted that the borough proceeded in the same manner for the acquisition of another vehicle in 2006.

**3.3.2.B. Recommendations**

We recommend that the Direction des travaux publics comply with the provisions of the Act with respect to the awarding of contracts in order to obtain the best possible prices for its purchases.

**3.3.2.C. Action Plan for the Business Unit Involved**

*[Translation] "Henceforth, we will comply with this recommendation. Special attention will be paid to the way in which our contracts are awarded to ensure that we comply with the provisions in the Act." (Planned completion: February 2010)*

**3.4. VEHICLE LEASING**

**3.4.A. Background and Findings**

Vehicle leasing can help accommodate short-term needs or serve as a longer-term replacement for a vehicle that has been decommissioned. Long-term leases allow the borough to have access to a vehicle whose maintenance is performed by an external supplier and to acquire that vehicle at the end of the leasing contract (buyback). The funds for vehicle leasing are included in its operating budget.

Leasing represents a growing share of the borough's budget. Leasing costs accounted for approximately \$1.2 million in 2007, \$1.6 million in 2008 and \$1.6 million in October 2009. According to borough managers, this situation can be attributed in part to the borough's underfunded three-year capital program, the resulting focus on reducing maintenance and repair costs as well as CSP–MRA downtimes.

The types of leasing agreements currently used by the Rosemont–La Petite-Patrie borough are:

- short-term leasing of vehicles, without any operator, to accommodate occasional needs (e.g., pickup trucks, pieces of equipment). These leases are arranged through the CSP–MRA or an external supplier. This is not a common practice for the borough, representing annual expenditures of less than \$5,000. Consequently, our audit did not focus on this aspect;
- leasing of light and heavy vehicles, without any operator, for longer-term use (e.g., four- to five-year terms for pickup trucks, loaders, tractors, street sweepers, etc.). These leases are arranged through external suppliers and represent the majority of the borough’s leasing costs. They also include vehicle maintenance and sometimes include an option to purchase. In 2009, the CSP–MRA established a leasing fund to finance the increasing number of leases entered into by the boroughs with external suppliers. The maintenance of these vehicles is included in the leasing fees, and these vehicles can be purchased at the end of the lease. For the moment, the borough has not availed itself of this option because it still has reservations about the CSP–MRA downtimes;
- leasing of light and heavy vehicles with an operator for special short-term needs associated with an equipment requisition.

In terms of leases for light and heavy vehicles without any operator over an extended period of time, our audit focussed on six contracts, some of which cover multiple vehicles. Together, they represent a little more than half of the borough’s leased vehicles.

**Table 10—Leasing Contracts**

Item #	Type of vehicle	Number of units	Leasing period	Type of acquisition	Amount
1	Street sweeper/vacuum truck	3	2008–2012	Master agreement with the Direction de l’approvisionnement	\$948,014
2	Snowblower	1	Winter 2008–2009	Private tender	\$45,847
3	Snow-clearing equipment	11	2006–2011	Call for public tenders	\$2,474,310
4	Snow-clearing equipment	3	2007–2012	Call for public tenders	\$1,203,881
5	Snow-clearing equipment	6	2007–2012	Call for public tenders	\$1,329,226
6	Snow-clearing equipment	4	2009–2014	Call for public tenders	\$878,901

We examined whether the leasing process complied with existing legislation and regulations, if there were sufficient detailed analyses to justify these leases and if the required authorizations had been obtained.

For the six cases we reviewed, the funds necessary for the lease were provided by the borough's operating budget and the vehicles were delivered within a reasonable time frame. We confirmed that the City's usual purchasing procedures were followed and that the contracts were awarded to the lowest compliant bidder.

**FINDING**

**We did not find any comprehensive studies to confirm that the recent leases were preferable to the acquisition of new vehicles or the repair of the vehicles to be replaced. The only document we obtained was a 2006 study on snow removal vehicles (10 tractors and 2 loader-tractors) that highlighted long-term leasing costs (5 years) and savings on maintenance costs for vehicles to be replaced (2 tractors for clearing sidewalks and 5 track-type ploughs).**

**FINDING**

**In the case of item 2, the borough proceeded by way of a private agreement rather than an invitational tender, as it had previously acquired a vehicle from this supplier through a call for public tenders in 2006. However, this approach does not comply with city procedures or the provisions of the *Cities and Towns Act* (section 573), which specifies that all contracts between \$25,000 and \$99,999 require an invitation to be sent to at least two suppliers.**

We also reviewed the manner in which contracts were awarded to ensure that the borough's approach was acceptable. To this end, we asked the CSP–MRA to conduct a more extensive study of specific calls for tenders.

For the leasing of snow removal equipment (items 3 and 4), the CSP–MRA's observations are listed below:

- the specifications were referring to model TU-900 equipment, whereas the models delivered were TN-900s, which are currently listed as being \$17,300 cheaper than TU-900s;
- the specifications for item 3 did not specify a particular make or model, whereas item 4 indicated a Benco model TU-900.

For the snow removal equipment (items 5 and 6), the CSP–MRA observed that the specifications for item 5 limited the choice of make to one supplier, i.e. New Holland. The same stipulation was included in the specifications for item 6, although a change was made in a subsequent addendum to open the process to suppliers of all makes.

Finally, we examined the expenditure accounts related to the equipment requisitions.

**FINDING**

We ascertained that the borough entered into a number of leases by way of a private agreement for vehicles used to clean street drains even though the total of these leases was between \$24,999 and \$100,000. According to city procedures and section 573 of the *Cities and Towns Act*, the borough managers should have issued an invitational tender given the magnitude of the contract value. The managers indicated that their decision was based on the quality of the services provided by, and the equipment available through, this supplier. The hourly rate was identical to that of the CSP–MRA (the CSP–MRA also uses the services of this supplier).

**3.4.B. Recommendations**

We recommend that the Direction des travaux publics ensure that vehicle leasing contracts are awarded in compliance with the Act, which requires an invitational tender to be issued to at least two suppliers for contracts between \$25,000 and \$99,999, in order to guarantee the best possible prices for the borough.

We recommend that the Direction des travaux publics conduct the appropriate analyses to justify the decision to enter into long-term equipment leases rather than opt for an acquisition or repair solution. When leasing is the better option, arguments supporting the decision to deal with an external supplier rather than the long-term leasing fund of the CSP–MRA should be documented. Moreover, the results of these analyses or the selected scenario should be included in executive summaries to help borough council members make fully informed decisions.

**We recommend that the Direction des travaux publics take the necessary measures to improve the management framework of its vehicle leasing process and, more specifically, to develop technical requirements that will allow all potential suppliers to submit competitive bids and the borough to select the most beneficial proposal.**

**We recommend that the Direction des travaux publics use the appropriate method for awarding contracts pursuant to city regulations and section 573 of the *Cities and Towns Act*.**

### **3.4.C. Action Plan for the Business Unit Involved**

*[Translation] “Henceforth, in keeping with this recommendation, special attention will be paid to the way in which all our contracts are awarded to ensure compliance with the provisions stipulated in the Act. (Planned completion: next call for tenders)”*

*We agree with this recommendation. In all our acquisition decisions, the appropriate analyses are always performed to select the option that is the most beneficial to our operations, although we do not always document the results of these analyses. In order to comply with this recommendation, the next long-term vehicle leasing request will be suitably documented and supported by an appropriate analysis based on the available figures. Given that the long-term leasing fund of the CSP–MRA has been in place only since May 2009, we will solicit a bid from the CSP–MRA in our next call for tenders. This bid will be evaluated using the same criteria as those received from other suppliers. (Planned completion: next call for tenders)*

*We agree with the recommendation to improve the management framework of our process in order to minimize the risk of errors and omissions that may occur when specifications are prepared and bids are opened. Accordingly, from the beginning of the process onward, the Direction des travaux publics will ask another stakeholder (the Division des ressources financières et matérielles) to perform additional checks of all the documents issued and received to help ensure their accuracy and compliance. (Planned completion: next call for tenders)*

*Owing to exceptional emergency circumstances, we contracted more leases for street drain cleaning equipment than anticipated during the course of a year. As a result, in order to abide by the recommendation, special attention will be paid to the scope of the work to be carried out and to the manner in which our contracts are awarded in order to ensure we comply with the provisions stipulated in the Act.” (Planned completion: next call for tenders)*

### 3.5. WARRANTIES

#### 3.5.A. Background and Findings

Tracking warranties requires a reliable system whose data can be easily retrieved at any time. This system must also allow for the appropriate allocation of budgetary funds.

As of July 20<sup>th</sup> 2009, the borough's fleet was comprised of 329 vehicles. The CSP–MRA oversees the maintenance and repairs of 273 of these vehicles (83%). External suppliers perform this work on only 15 vehicles (5%), while another 41 vehicles (12%) belong to leasing companies who are responsible for the corresponding maintenance and repairs. Maintenance and repair work carried out by the CSP–MRA and external suppliers is covered by a warranty for a given period of time.

When it comes to maintenance and repairs performed by the CSP–MRA, borough managers alerted us to problems in the invoicing of parts and labour that should have been under warranty. Following a meeting held on October 23<sup>rd</sup> 2009 between the borough and the CSP–MRA, a **CSP–MRA manager indicated that [Translation] “... unfortunately, the (MIR) computer system cannot prevent the invoicing of work that would normally be covered by a warranty.”** As a result, the CSP–MRA may bill the borough for work that is covered by a warranty. A recommendation to this effect was included in the report addressed to the CSP–MRA.

#### **FINDING**

**We ascertained that the borough does not have access to a system that tracks maintenance and repairs performed by external suppliers.**

We reviewed a sample of vehicles in which the responsibility for warranty tracking fell to the borough. Our audit showed that the supplier had identified the parts under warranty and had replaced them at no charge. Should the trend towards expanding the fleet of vehicles supervised by the borough continues, it may be beneficial for the borough managers to implement a warranty tracking system.

### 3.5.B. Recommendations

We recommend that the Direction des services administratifs consider the value of implementing a system to track warranties related to work performed by external suppliers.

### 3.5.C. Action Plan for the Business Unit Involved

*[Translation] “We agree with this recommendation. Currently, as the volume of work performed by external suppliers is limited, the borough managers are able to monitor the situation easily and effectively. However, an increase in work volume in the coming 18 months is being anticipated. In that case, it would be useful to study whether the borough should adopt a warranty tracking system.” (Planned completion: June 2011)*

## 3.6. SATISFACTION WITH THE CSP–MRA SERVICES

### 3.6.A. Background and Findings

The Direction du matériel roulant et des ateliers has become a supplier of specialized products and services that must continuously adapt to the needs of its clients. Given that clients are free to entrust their maintenance and repair work to either the CSP–MRA or external suppliers, service costs and quality have become deciding factors for both parties.

In recent years, the CSP–MRA has implemented various tools to determine and measure client satisfaction with its products and services. For instance, a survey was conducted with target groups in the fall of 2007 to assess their understanding of certain products and services offered by the CSP–MRA, measure their level of satisfaction with the products and services being provided. The intent was to use this information to support business development initiatives.

Other measures have also been adopted to accommodate clients' requests and address various operational issues. Among others, meetings were held between the head of the Division de la planification stratégique et relations d'affaires, the service managers of the municipal garages and the managers of certain boroughs, including Rosemont–La Petite-Patrie.

**FINDING**

The managers we interviewed during our audit outlined four main issues with the CSP–MRA:

- failure to prepare cost estimates in line with the stated needs;
- over-extended vehicle downtimes;
- non-adherence to quotes;
- repairs performed without the appropriate authorization.

These issues are detailed below.

- **Failure to prepare cost estimates in line with the stated needs.**

In respect to body work, the managers maintained that the CSP–MRA did not follow the borough’s instructions regarding the repairs to be done and proposed instead an approach that was almost akin to refurbishing. They claimed that the scope of the work to be performed did not always appear to be correctly understood or explained. In these cases, the borough elected to have less complicated work done at a lower cost through an external supplier.

We obtained examples of significant variations between the costs quoted by the CSP–MRA and those charged by external suppliers for similar work. These examples involved repairs to light vehicles.

- **Over-extended vehicle downtimes.**

The managers pointed out that vehicles requiring minor work were frequently out of service for a long period of time. Our examination of certain work orders indeed showed significant downtimes for specific jobs.

- **Non-adherence to quotes.**

The managers we interviewed mentioned that the CSP–MRA did not always send them revised quotes to warn them about increases in the cost of work to be performed. In this respect, we came across invoices that were substantially higher than their corresponding quotes.

- **Repairs performed without the appropriate authorization.**

The CSP–MRA occasionally performed repairs on vehicles without first obtaining authorization from borough managers. Several examples of this were provided to us.

**Most of these issues were discussed with the managers of the CSP–MRA during working meetings. In the opinion of the CSP–MRA, measures have been initiated or are being implemented to remedy the situation.** However, borough managers remain sceptical about the ability of the CSP–MRA to offer competitive pricing and quality service for all of its operations.

### 3.6.B. Recommendations

**We recommend that the borough implement the appropriate mechanisms to resolve the outstanding issues between the two parties. In this regard, we strongly suggest the documentation of the facts related to the reported issues. There is also a need to assess them objectively in light of a business relationship that clearly requires improvement and this must be approached with the firm intention of resolving the identified issues that have been a source of a long-standing conflict.**

### 3.6.C. Action Plan for the Business Unit Involved

*[Translation] “We are obviously open to pursuing efforts to resolve the outstanding issues between the CSP–MRA and our borough, although we would have preferred that the responsibility be shared with the CSP–MRA.” (Planned completion: December 31<sup>st</sup> 2010)*

## V.4.4. VERDUN BOROUGH

### 1. INTRODUCTION

The fleet belonging to the Verdun borough is composed of 135 vehicles (102 light vehicles and 33 heavy vehicles) with an average age of 10.6 years. The vehicles are assigned to the borough's various administrative units.

The responsibility for the management of the borough's fleet falls entirely with the Direction des travaux publics et soutien à la direction d'arrondissement (Direction des travaux publics). In this respect, its main tasks are the:

- planning and acquisition of vehicles;
- short-term leasing of vehicles;
- management of vehicle usage (driver's licences, registration, training);
- recording of fleet-related information and production of the appropriate management reports;
- operation of a municipal garage for the mandatory maintenance of heavy vehicles (Bill 430), the periodic maintenance of light vehicles and various repairs;
- decommissioning and disposal of vehicles.

The borough rarely calls upon the CSP–MRA. Since its municipal garage is staffed with qualified mechanics, it is self-sufficient in this regard. However, the borough managers use the guidelines and purchase agreements negotiated by the Direction de l'approvisionnement of the former Service des affaires corporatives of the City of Montréal for vehicle purchases, fuel management, replacement parts and training.

### 2. AUDIT SCOPE

The objective of our audit was to promote the sound management of all fleet-related activities. To this end, we examined vehicle acquisitions and leases, maintenance and repairs, fuel procurement and distribution, the turnover of replacement parts and vehicle disposal.

Our audit focussed primarily on the year 2008 and the period from January to September 2009.

### 3. FINDINGS, RECOMMENDATIONS AND ACTION PLANS

#### 3.1. VEHICLE ACQUISITIONS AND LEASES

##### 3.1.A. Background and Findings

As of June 22<sup>nd</sup> 2009, the borough's fleet was comprised of 135 vehicles (102 light vehicles and 33 heavy vehicles) with a total value of \$7,894,714 (acquisition cost) and an average age of 10.6 years. The vehicles were assigned to the borough's various administrative units (roads and parks, municipal buildings, recreation, public safety, water and sewer systems, mechanical services, etc.).

While preparing the 2009–2011 three-year capital program, the Division immeubles, matériel roulant, approvisionnement of the Direction des travaux publics updated the borough's vehicle fleet inventory and established a replacement value for each type of vehicle. **This information was used to estimate the replacement value of the entire fleet (\$12.5 million) and establish its average age (roughly 10 years)** in a report that was submitted to the Direction des travaux publics.

On the basis of the age and current value of the fleet, the division determined that **an annual investment of at least \$1.5 million would be required to maintain the average age at 10 years.**

**Following discussions with the borough director about the three-year investments (2009–2011) for the acquisition of vehicles, it was decided that the total amount over three years would be limited to \$2.277 million or \$759,000 a year.** The borough council adopted the borough's three-year capital program on December 16<sup>th</sup> 2008 and approved a \$759,000 loan by-law to finance the acquisition costs of these vehicles on February 3<sup>rd</sup> 2009.

##### FINDING

**In light of the report on the updated fleet inventory, we ascertained that the Division immeubles, matériel roulant, approvisionnement deemed the planned investments to be insufficient. They reached this consensus after considering the investments made in recent years and the \$759,000 investment budgeted for 2009, 2010 and 2011. If maintenance expenses remain at their current level, the average age of the fleet will increase gradually, while its reliability will decrease.**

For example, some snowblowers are more than 40 years old and one loader is over 20 years old. During our interviews with managers of the Direction des travaux publics, they expressed serious concerns about the borough's ability to invest the necessary amounts to renew its fleet.

**FINDING**

**We ascertained that the borough does not have a capital master plan for the renewal of its vehicle fleet. It is therefore more difficult to have a comprehensive overview of the current vehicle fleet, the risk of insufficient long-term investments and the alternatives that would provide the borough with the vehicles necessary to carry out its operations.**

In addition, a capital master plan would allow the borough to establish its priorities, set realistic objectives, determine the optimal composition of its fleet and define the corresponding guidelines (type of vehicles, fuel consumption, type of technology, engine specifications, etc.). It would also provide a better overview of the current state of its fleet and allow for the evaluation of alternatives should there be a considerable delay in the progression of the plan.

In 2008, six replacement vehicles were purchased for a total of \$647,244. As of June 23<sup>rd</sup> 2009, an amount of \$716,394 had been spent on the purchase of 10 vehicles out of a total budget of \$759,000. Among these vehicles, four were previously owned and cost less than \$15,000 each. The six others were purchased new either from a dealer following a call for tenders issued by the borough or via combined purchase agreements previously arranged by the Direction de l'approvisionnement of the former Service des affaires corporatives as part of a call for public tenders (blanket order).

**Table 11—Vehicle Acquisitions**

Year	Used models	Call for tenders	Purchase agreements	Total
2008	0	5	1	6
2009	4	4	2	10

We selected four used vehicles purchased in 2009 and nine vehicles purchased by way of calls for tenders in 2008 and 2009 to ascertain the existence of key controls at various stages of the acquisition process, including the:

- documentation prepared to determine mobile equipment needs and justify acquisitions;
- preparation of drawings and specifications (technical standards);
- calls for tenders (when applicable);

- suppliers' bids;
- technical compliance analysis of bids and selection of the lowest compliant bidder;
- work order authorizations;
- delivery of vehicles within specified time frames;
- executive summaries and minutes of borough council meetings (when applicable);
- entering of new vehicles into the database;
- physical check of the new vehicles.

Concerning the four used vehicles, we obtained the working documentation prepared by the mechanical supervisors on the costs of comparable used vehicles, as well as the authorized work orders. **No anomalies were found in the purchase process and a physical check of these four vehicles was performed.**

**FINDING**

**However, we observed that the Direction des travaux publics did not establish any criteria for the purchase of used vehicles (vehicle age, certification, odometer readings, cost, colour, residual warranties, condition and appearance of body, etc.).**

We also reviewed the purchasing process for the nine vehicles acquired in 2008 and 2009 through calls for tenders (six invitational and three public) issued by the borough. We examined these transactions and consulted with the managers of the CSP–MRA to assess the process implemented and, more specifically, examine the technical standards attached to these calls for tenders.

Accordingly, the nine calls for tenders in 2008 and 2009 were reviewed, as were related work order authorizations, executive summaries and minutes of borough council meetings. Moreover, we verified with the CSP–MRA that these categories of vehicles were not included in the combined vehicle purchase agreements negotiated by the Direction de l'approvisionnement of the former Service des affaires corporatives of the City of Montréal. **Only one anomaly was detected during this examination and it concerned the acquisition of a snowblower.**

Following a public call for public tenders in 2008, the borough acquired a loader with a snowblower attachment at a cost of \$341,688. The specifications for this vehicle were prepared by the Division immeubles, matériel roulant, approvisionnement in conjunction with the borough's Division de la voirie et des parcs. The call for tenders was dated July 24<sup>th</sup> 2008. Five suppliers obtained the tendering documents and three bids were received. The lowest compliant bidder

was awarded the contract. After examining the documents related to this acquisition, we contacted one of the potential suppliers that did not bid to determine the reasons it abstained. This potential supplier indicated that the specifications were too restrictive and had been prepared in a way to discourage competitive bidding.

Upon our request, the CSP–MRA conducted a more detailed evaluation of the technical specifications for the loader/snowblower on September 16<sup>th</sup> 2009. **Its analysis showed that some of the requirements within the specifications accompanying the call for tenders made it impossible for other manufacturers of loader/snowblowers to submit their product for consideration.** These requirements included:

- the existence of a technical services department supervised by an engineer who had been with the firm for at least five years;
- the need for the snowblower model to have been in active production for more than a year;
- the requirement for a transmission equipped with a specific type of speed reduction mechanism (axle pinion gear shafts for the turbine and conveyors).

#### **FINDING**

**We ascertained that some loader/snowblower suppliers were not able to submit a competitive bid. Consequently, there is no guarantee that the borough obtained the best possible price.**

It is worth noting that the borough has not acquired any vehicles via long-term leases. It does, on occasion, lease vehicles on a short-term basis when special needs arise (e.g., as a temporary replacement vehicle).

#### **3.1.B. Recommendations**

**We recommend that the Direction des travaux publics take the necessary measures to improve the management framework of its vehicle acquisition process, specifically by:**

- **establishing a master plan in keeping with the borough's guidelines that will promote timely and informed decisions;**
- **establishing selection criteria as to the types of used vehicles to purchase (cost, certification, fuel consumption, warranty);**
- **developing technical requirements so that all potential suppliers can submit a competitive bid and the borough can select the best possible proposal.**

### 3.1.C. Action Plan for the Business Unit Involved

*[Translation] "We will draft a vehicle acquisition master plan.*

*We will also create a reference document specifying the borough's various criteria in respect to the purchase of used vehicles.*

*Finally, we will implement a control mechanism that will ensure that call-for-tenders documentation for the acquisition of mobile equipment is less restrictive in order to encourage more suppliers to submit bids." (Planned completion: November 26<sup>th</sup> 2010)*

## 3.2. COMPLIANCE WITH THE REQUIREMENTS FOR HEAVY VEHICLE USERS (BILL 430)

### 3.2.A. Background and Findings

The *Act Respecting Owners, Operators and Drivers of Heavy Vehicles*, adopted in June 1998, governs road transport by heavy vehicles across Québec. Its purpose is to improve road safety and preserve the integrity of public roads. The Act requires owners and operators of heavy vehicles with a net weight in excess of 3,000 kilograms to be registered with the *Registre des propriétaires et des exploitants de véhicules lourds*. In addition, it provides for the evaluation and monitoring of their conduct on the road and at their workplace based on their individual files and pre-established criteria.

The Ville de Verdun was registered with the *Registre des propriétaires et des exploitants de véhicules lourds* prior to December 31<sup>st</sup> 2001. Following the merger of the municipalities on the Island of Montréal, this responsibility was centralized and the new fleet of vehicles for the newly-created City was registered to the City of Montréal. Pursuant to Bill 430, the Ville de Montréal is now registered with the *Registre des propriétaires et des exploitants de véhicules lourds* of the *Commission des transports du Québec* and the borough must ensure compliance with the provisions of this legislation concerning its heavy vehicles.

As a heavy vehicle user, the borough is responsible for:

- registering vehicles on behalf of the City of Montréal/Verdun borough;
- maintaining vehicles in good mechanical working order;
- repairing malfunctions observed during pre-departure checks;
- complying with the maintenance program standards;
- keeping the documentation necessary to maintain a file on the vehicle;

- submitting vehicles to periodic mechanical checks under the preventive maintenance program (PMP);
- ensuring that drivers possess the necessary driving skills and exhibit the proper conduct.

A sample of five heavy vehicles was selected at random from the 33 heavy vehicles registered with the borough fleet to ensure that the borough was effectively fulfilling its responsibilities under Bill 430. Specifically, we checked:

- the validity of the registration certificate;
- the existence of records for planned and completed mechanical inspections on these five sample vehicles in accordance with Bill 430;
- the existence of work orders for corrective maintenance and the description of the repairs in the records of each vehicle selected;
- the presence of a compliance decal on the five heavy vehicles, indicating the date of the most recent mechanical inspection;
- the existence of a duly completed and certified maintenance form from a mechanic recognized by the Société de l'assurance automobile du Québec (SAAQ), including a checklist in accordance with the *Regulation Respecting Safety Standards for Road Vehicles* for which each item is marked as being either "compliant" or "not compliant", in which case a list of required repairs is provided;
- proof that mechanics are properly trained and SAAQ-authorized (certificate of mechanical inspection);
- the presence of a pre-departure checklist on board, requiring drivers to conduct visual and auditory inspections of certain elements accessible from the vehicle and take the necessary steps to correct any malfunctions identified;
- evidence that any identified and documented malfunctions stemming from pre-departure checks have been repaired;
- evidence that the driver's licences of heavy vehicle operators are checked annually with the SAAQ and that the licence holders are authorized to drive the category of vehicle in question;
- proof that driving and work hours are properly managed, especially during snow removal seasons (compliance with the maximum number of work hours).

**Overall, the results of our audit showed that the fleet of heavy vehicles was managed effectively in compliance with Bill 430.** Each vehicle had its own maintenance and repair history file. The mandatory maintenance form for heavy vehicles was completed by qualified

mechanics and kept on file for each of the vehicles audited. Driver's licences were validated annually and supervisors authorized time sheets as a way to control driving hours.

#### **FINDING**

During our audit of these five heavy vehicles, we observed that one pre-departure checklist was not completed. At the request of the borough and the City, drivers must carry out a pre-departure check of their vehicle and document their observations regarding its mechanical condition on the vehicle checklist. The borough supervisors are also required to ensure drivers complete these checklists. We did not find any evidence that supervisors had verified all checklists. Follow-ups were only performed when drivers indicated a mechanical problem. Under the *Highway Safety Code*, there are cases when fines can be levied if pre-departure checks are not completed. These incidents are also recorded in the files of heavy vehicle owners and operators.

#### **3.2.B. Recommendations**

We recommend that the Direction des travaux publics take the necessary actions to force all heavy vehicle drivers to complete the pre-departure checklist on the condition of their vehicle. This will ensure that it is in good working order and that any malfunctions are identified and repaired as quickly as possible.

#### **3.2.C. Action Plan for the Business Unit Involved**

*[Translation] "We will implement control measures to ensure heavy vehicle drivers fulfil their obligation with respect to completing their pre-departure checklist and submit a copy, as necessary, to the garage so that any detected anomalies can be corrected." (Planned completion: May 21<sup>st</sup> 2010)*

### **3.3. VEHICLE MAINTENANCE AND REPAIRS**

#### **3.3.A. Background and Findings**

Under Bill 430, the SAAQ regulates the implementation of a preventive maintenance program (PMP) by vehicle fleet owners with specific requirements to ensure that vehicles remain in good mechanical working order.

It is therefore the responsibility of each owner to either implement a PMP or entrust this program to an authorized agent in exchange for compensation. The participant must show that all PMP requirements have been met, namely that:

- preventive maintenance was performed in suitable, enclosed and heated facilities that allow access to the various parts of the vehicle;
- preventive maintenance was performed by qualified mechanics who have passed an SAAQ-recognized examination focussing solely on preventive maintenance;
- the PMP complies with government requirements on maintenance frequency, record keeping and the mechanical components to be maintained. The preventive maintenance frequency is determined by the category of vehicle and the number of kilometres driven per year;
- preventive maintenance information and documentation for the last two years that the vehicle has been in use was signed by a qualified mechanic and kept on file.

For light vehicles, the borough has implemented various maintenance tasks in accordance with the manufacturers' standards. They primarily involve checking the brakes, cooling system, engine, electrical system, tires and fluid levels, as well as lubrication.

**As part of our audit, we selected five light vehicles at random and obtained evidence that work orders for their complete inspection were produced. The majority of light vehicles are inspected every six months.** As for public safety vehicles, they are inspected monthly given the fact that they are driven for a greater number of kilometres in comparison with other fleet vehicles.

**FINDING**

**We discovered that mechanical supervisors oversee downtimes as well as maintenance and repair quality based solely on their experience and judgment. Our audit indicated that there are no existing standards for maintenance and repair times. Consequently, productivity is not measured and compared against the performance of external suppliers with similar operations. These standards could be comparable to those in place in external garages (e.g., standard times for executing repair or maintenance work, measurement of productive time, etc.). Time variations could then be explained and justified by the supervisors of these employees.**

**FINDING**

We observed that there are no mechanisms in place to measure the quality of repairs following a review of the causes of repeat or similar repairs. In addition, we did not obtain any information on the quality of work based on road tests since there is no data on the failure rate of repairs after such tests. As for the merits of the quality control performed by supervisors, there is no data available on this aspect of their work.

**FINDING**

We ascertained that the controls for the measurement of user satisfaction with mechanical services are limited to the verbal comments of certain users made to the supervisors of mechanics. There is no formal method to determine the level of user satisfaction with mechanical services.

In this context, we selected and contacted two borough representatives (division head and supervisor) who use the vehicle fleet and mechanical services to assess their level of satisfaction.

They made positive, albeit concise and minimal, comments about the speed and quality of execution of mechanical work, the courtesy of the supervisors and mechanics as well as the willingness of supervisors to locate replacement vehicles.

### 3.3.B. Recommendations

We recommend that the Direction des travaux publics establish efficiency standards and quality criteria for maintenance and repair work based on comparable industry controls and implement the appropriate mechanisms to measure their level of attainment. These controls should also include the compilation of rework costs to determine how they drive overall maintenance and repair costs upward.

We recommend that the Direction des travaux publics develop a mechanism to measure the level of user satisfaction and take the appropriate steps to address any complaints and comments it receives. This measurement tool should also make it possible to record and report user feedback to the appropriate authorities.

### 3.3.C. Action Plan for the Business Unit Involved

*[Translation] “We will establish efficiency standards and quality criteria for maintenance and repair work. (Planned completion: November 26<sup>th</sup> 2010)*

*Once the necessary budget has been allocated and an improved management system has been put into place, we will implement a system to measure the quality of work and assess whether quality goals were attained. (Planned completion: November 25<sup>th</sup> 2011)*

*Once the necessary budget has been allocated and an improved management system has been implemented, we will compile all rework costs. (Planned completion: June 24<sup>th</sup> 2011)*

*We will develop a mechanism to measure the level of user satisfaction.*

*We also intend to follow up on user complaints and comments.*

*Finally, we will report regularly on the level of user satisfaction and the follow-up of user complaints.” (Planned completion: November 25<sup>th</sup> 2011)*

## 3.4. WARRANTIES

### 3.4.A. Background and Findings

#### **FINDING**

**We ascertained that the current controls to ensure compliance with warranties on replacement parts and repairs performed by external suppliers are insufficient. In fact, the only evidence we found were notes in vehicles files indicating that repairs were made under warranty.**

According to the supervisors we interviewed, documents tend to accumulate in vehicle files, making it occasionally difficult to retrieve information on warranty-related repairs. Furthermore, given that there are two supervisors overseeing repair and maintenance for fleet vehicles, it is essential that a control mechanism be used to identify warranties in effect for each vehicle and prevent the borough from incurring unnecessary additional fees.

When vehicles need repairs under warranty, managers must decide whether the repairs should be performed in-house or by external suppliers. This decision consider the labour costs involved

in bringing the vehicle to the selected supplier and back, compared with the estimated costs of having the repairs done by the borough.

**FINDING**

We ascertained that the costs discussed above are evaluated in a subjective manner, that they are not documented and that there are no criteria to support supervisors in their decision-making process. Moreover, when the borough performs repairs on vehicles or replacement parts under warranty, the new parts are supplied free of charge, but the borough must absorb the labour costs. However, when these repairs are entrusted to external suppliers, they must assume all expenses.

**3.4.B. Recommendations**

We recommend that the Direction des travaux publics implement a suitable system to easily pinpoint the parts and repairs under warranty and eliminate the risk of disbursing unnecessary additional fees.

We recommend that the Direction des travaux publics establish basic criteria to determine whether repairs covered by a warranty should be carried out by suppliers or the borough.

**3.4.C. Action Plan for the Business Unit Involved**

*[Translation] "We will implement a system to track components and repairs that are under warranty. (Planned completion: May 21<sup>st</sup> 2010)*

*We will also establish basic criteria to determine whether repairs covered by a warranty should be carried out by suppliers or the borough." (Planned completion: May 21<sup>st</sup> 2010)*

**3.5. DECOMMISSIONING AND DISPOSAL OF VEHICLES**

**3.5.A. Background and Findings**

In order to enable managers to justify vehicle disposals, the decision-making criteria must be well defined and the rationale behind the disposal must be recorded and authorized.

The decision to dispose or not dispose of a vehicle must be carefully considered, given the repercussions on usage costs. A vehicle that is prematurely decommissioned must be replaced with a newly acquired or leased counterpart, whereas overextending service life span can entail significant maintenance and repair costs that will never be recovered.

**FINDING**

**We observed that mechanical failure and poor body condition are the only criteria used currently to determine which vehicles should be decommissioned. In addition, we ascertained that the decision to dispose of vehicles is sometimes made following the purchase of new or used vehicles and the need to decommission an equivalent number of vehicles, which are usually chosen among those that are the most problematic. The borough is unaware of the exact costs associated with this approach and does not employ decision-making rules backed by a specific plan.**

In our opinion, it is important that the borough actually incorporates other vehicle disposal criteria. It should also determine which forms need to be completed and which authorizations need to be obtained. These elements could be addressed in guidelines that would ensure that disposal-related decisions are fully justified.

The borough could prepare a form that lists all of its vehicle disposal criteria, including the:

- kilometres travelled and hours of use;
- vehicle age;
- maintenance costs compared with financing costs;
- appearance and comfort (image, well-being, safety);
- projected maintenance and repair costs over the following two years;
- new technology that could cut usage costs and increase productivity;
- environmental protection;
- required authorizations (supervisor, division head and head of the Direction des travaux publics).

**Given the lack of any data on vehicle disposals, we were unable to evaluate the soundness of the decision to decommission six vehicles in 2009.**

### 3.5.B. Recommendations

We recommend that the Direction des travaux publics develop guidelines for the disposal of vehicles. Among others, this document should specify the decision-making criteria to be adopted, the forms to be completed and the authorizations required in order to support the decision-making process and promote the optimal use of vehicles and equipment. Furthermore, all relevant documentation should be kept on file to justify any decision made.

### 3.5.C. Action Plan for the Business Unit Involved

[Translation] "We will develop guidelines for the disposal of vehicles.

We will also establish a system to document and justify choices made with respect to vehicle disposal." (Planned completion: May 21<sup>st</sup> 2010)

## 3.6. DRIVER TRAINING

### 3.6.A. Background and Findings

The borough's vehicles travel thousands of kilometres each year and are used in a wide array of situations by various drivers.

#### **FINDING**

During our interviews with mechanical supervisors, we ascertained that some employees drive vehicles without having been properly trained on how to operate them. The supervisors indicated that they provided explanations on vehicle operation to the designated employees immediately prior to their use. These situations occurred during emergencies when drivers needed to be replaced because they had worked the maximum number of hours allowed by the SAAQ and under labour legislation (e.g., during snowstorms).

This practice could increase the risk of accidents, drive the costs of fleet vehicle repairs upward and last, but not least, tarnish the record of heavy vehicle owners or operators (Bill 430).

### 3.6.B. Recommendations

We recommend that the Direction des travaux publics provide appropriate training to drivers so that they acquire the specific skills needed to operate vehicles.

### 3.6.C. Action Plan for the Business Unit Involved

*[Translation] “We will provide the appropriate training to drivers so that they have the specific skills required to operate vehicles.*

*We will also implement a training monitoring system for all drivers.” (Planned completion: November 25<sup>th</sup> 2011)*

## V.4.5. SAINT-LAURENT BOROUGH

### 1. INTRODUCTION

The fleet belonging to the Saint-Laurent borough is composed of 228 vehicles (160 light vehicles and 68 heavy vehicles), with an average age of 10.9 years. The vehicles are assigned to the borough's various administrative units.

The responsibility for the management of the borough's fleet falls entirely with the Direction des travaux publics. In this respect, its main tasks are the:

- planning and acquisition of vehicles;
- short-term leasing of vehicles (seasonal usage) with the assistance of the Direction des services administratifs for the calls for tenders;
- management of vehicle usage (driver's licences, registration, training);
- recording of fleet-related information and production of the corresponding management reports;
- operation of a municipal garage for the mandatory maintenance of heavy vehicles (Bill 430), the periodic maintenance of light vehicles and various repairs;
- decommissioning and disposal of vehicles.

This borough rarely calls upon the CSP–MRA. Since its municipal garage is staffed with qualified mechanics, it is self-sufficient in this regard. However, the borough managers use the guidelines and purchase agreements negotiated by the Direction de l'approvisionnement of the former Service des affaires corporatives of the City of Montréal for vehicle purchases, fuel management, replacement parts and training.

### 2. AUDIT SCOPE

The objective of our audit was to promote the sound management of all fleet-related activities. To this end, we examined vehicle acquisitions and leases, maintenance and repairs, fuel procurement and distribution, the turnover of replacement parts and vehicle disposal.

Our audit focussed primarily on the year 2008 and the period from January to September 2009.

### 3. FINDINGS, RECOMMENDATIONS AND ACTION PLANS

#### 3.1. MISSION AND OBJECTIVES

##### 3.1.A. Background and Findings

Having a mission is one of the key elements needed to organize activities. It also serves as the foundation for all subsequent reporting. An effective mission statement identifies the clients to be served, the goods or services being offered and the overall desired target results.

The mission statement of the Division de la mécanique des bâtiments et de l'éclairage des rues reads as follows: *[Translation]* "To provide the Saint-Laurent borough management with the most efficient and cost-effective mechanical services."

During our audit, we interviewed the managers of the Division de la mécanique des bâtiments et de l'éclairage des rues. They indicated that their primary objectives were twofold: to work within the amounts specified in fleet management budgets and to minimize costs as much as possible.

##### **FINDING**

**Based on this information, we believe that the vehicle-related objectives of the Division de la mécanique des bâtiments et de l'éclairage des rues should be defined, conveyed to all staff and applied to all of its operations.**

These objectives should be stated in measurable terms and supported by performance indicators. Additional objectives may address such aspects as the quality of repairs, turnaround times for repairs and user satisfaction.

##### 3.1.B. Recommendations

**We recommend that the Direction des travaux publics formulate measurable objectives, supported by performance indicators, to channel the efforts of its staff and attain the desired outcomes.**

##### 3.1.C. Action Plan for the Business Unit Involved

*[Translation]* "We will convey the mission statement of the Division de la mécanique des bâtiments et de l'éclairage des rues that reads as follows: 'To provide the most efficient and cost-effective mechanical services.' **(Completed)**

*We will establish performance indicators to improve the efficiency of operations performed by the Section mécanique of the Saint-Laurent borough. (Planned completion: March 1<sup>st</sup> 2010)*

*We also intend to reduce downtimes of vehicles in the garage by using the daily report as an indicator: 80% of vehicles should not be out of service for a duration exceeding a regular work shift, except when necessary. (Planned completion: December 31<sup>st</sup> 2010)*

*Finally, we will complete the procedures manual for the Section mécanique.” (Planned completion: March 1<sup>st</sup> 2010)*

## 3.2. VEHICLE ACQUISITIONS AND LEASES

### 3.2.A. Background and Findings

As of July 15<sup>th</sup> 2009, the borough's fleet was comprised of 228 vehicles (160 light vehicles and 68 heavy vehicles). **The total acquisition cost for these vehicles and machines was \$23.4 million and their average age was 10.9 years.** These vehicles were assigned to the borough's various administrative units (parks and recreation, public safety, roads, electricity and signage, water and sewer systems, mechanical services, etc.).

While preparing the 2009–2011 three-year capital program, the Division de la mécanique des bâtiments et de l'éclairage des rues of the Direction des travaux publics updated the borough's vehicle fleet inventory and established a replacement value for each type of vehicle. This information was used to estimate the replacement value of the entire fleet (\$25.0 million) and establish its average age (roughly 10 years) in a report that was submitted to the Direction des travaux publics.

On the basis of the age and current value of the fleet, the division determined that **an annual investment of at least \$2.5 million would be required to maintain the average age at 10 years.**

Following discussions with the borough director about the three-year investments (2009–2011) for the acquisition of vehicles, **it was decided that the total amount over three years would be limited to \$4.5 million, or \$1.5 million a year.** The borough council adopted the borough's three-year capital program on October 15<sup>th</sup> 2008 and approved a \$4.5-million loan by-law to finance the acquisition costs of these vehicles on December 2<sup>nd</sup> 2008.

Considering the investments made in recent years and the \$1.5 million budgeted for 2009, 2010 and 2011, the Division de la mécanique des bâtiments et de l'éclairage des rues deems that the planned investments are insufficient.

**FINDING**

**We ascertained that if maintenance expenses remain at their current level, the average age of the fleet will increase gradually, while its reliability will decrease.**

According to a fleet analysis conducted by the Division, 65 vehicles had exceeded their useful life span in 2009 and their replacement value was estimated at \$5.2 million (ratio of vehicles to be replaced versus the total number of vehicles in the fleet: 20.6%). **During our interviews with the managers of the Direction des travaux publics, they expressed serious concerns about the borough's ability to invest the necessary amounts to renew its vehicle fleet.**

**FINDING**

**We ascertained that the borough has conducted studies on its vehicle fleet, but it lacks a capital master plan that takes into account all pertinent fleet renewal elements.**

The studies currently available highlight such elements as the vehicle replacement value, a list of the various types of vehicles broken down by age and certain initiatives under evaluation for the acquisition of vehicles equipped with state-of-the-art multipurpose technology. **However, we found no indication of the targets to be achieved, the optimal composition of the vehicle fleet or the alternatives to be considered in the case of a considerable delay in the implementation of the plan.**

It is therefore more difficult to have a comprehensive understanding of the situation involving the vehicle fleet, the risk of insufficient long-term investment and alternatives that would enable the borough to have the vehicles necessary to carry out its operations.

### 3.2.B. Recommendations

**We recommend that the Direction des travaux publics update its 2009 vehicle fleet master plan and include all relevant elements in keeping with the borough's guidelines to support timely and informed decisions.**

### 3.2.C. Action Plan for the Business Unit Involved

*[Translation] "We will update our vehicle master plan for 2010 in preparation for our 2011–2013 three-year capital program.*

*A strategic retreat is in the works for 2010 where all of the supervisors and the division head of the Direction des travaux publics will attempt to find ways to reduce the vehicle fleet and make informed decisions in this respect." (Planned completion: March 31<sup>st</sup> 2010)*

## 3.3. VEHICLE MAINTENANCE AND REPAIRS

### 3.3.A. Background and Findings

Under Bill 430, the SAAQ regulates the implementation of a preventive maintenance program (PMP) by vehicle fleet owners with specific requirements to ensure that vehicles remain in good mechanical working order.

It is therefore the responsibility of each owner to either implement a PMP or entrust this program to an authorized agent in exchange for compensation.

We validated the information confirming that the borough received the PMP certification prior to the merger with the City of Montréal. It was officially accredited by the SAAQ on November 5<sup>th</sup> 2008, at which point it was formally authorized to apply the PMP, subject to all the rights and obligations under the Act and its regulations. PMP decals were received from the SAAQ bearing an authorized agent number unique to the City of Montréal. These decals are affixed on all heavy vehicles belonging to the borough once they have undergone preventive maintenance.

#### **FINDING**

**We discovered that mechanical supervisors oversee downtimes as well as maintenance and repair quality based solely on their experience and judgment. Our audit indicated that there are no existing standards for maintenance and repair times. Consequently, productivity is not measured and compared against the performance of external suppliers with similar operations.**

These standards could be comparable to those in place in external garages (e.g., standard times for executing repair or maintenance work, measurement of productive time, etc.). Time variations could then be explained and justified by the supervisors of these employees.

**FINDING**

We observed that there are no mechanisms in place to measure the quality of repairs following a review of the causes of repeat or similar repairs. In addition, we did not obtain any information on the quality of work based on road tests since there is no data on the failure rate of repairs after such tests. As for the merits of the quality control performed by supervisors, there is no data available on this aspect of their work.

**FINDING**

We ascertained that the controls for the measurement of user satisfaction with mechanical services are limited to the verbal comments of certain users made to the supervisors of mechanics. There is no formal method to determine the level of user satisfaction with mechanical services.

**3.3.B. Recommendations**

We recommend that the Direction des travaux publics establish efficiency standards and quality criteria for maintenance and repair work based on comparable industry controls and implement the appropriate mechanisms to measure their level of attainment. These controls should also include the compilation of rework costs to determine how they drive overall maintenance and repair costs upward.

We recommend that the Direction des travaux publics develop a mechanism to measure the level of user satisfaction and take the appropriate steps to address any complaints and comments it may receive. This measurement tool should also make it possible to record and report user feedback to the appropriate authorities.

**3.3.C. Action Plan for the Business Unit Involved**

*[Translation] "We will establish normal work times for the City's various pieces of equipment. To this end, we will conduct research through the APOM (Association des professionnels à l'outillage municipal) as industry times are very conservative and not rooted in reality. We will measure the operational efficiency of the Section mécanique. We will also compare the work performed by external and internal suppliers (in terms of quality and time). (Planned completion: December 31<sup>st</sup> 2010)*

*We intend to survey other borough departments in Saint-Laurent to determine their level of satisfaction with mechanical services. A survey form will be developed.*

*We will keep a register of client complaints.” (Planned completion: March 1<sup>st</sup> 2010)*

### 3.4. FUEL PROCUREMENT, DISTRIBUTION AND RECONCILIATION

#### 3.4.A. Background and Findings

The fuel budget was \$1,003,698 in 2008 and \$1,176,050 in 2009. The borough owns three underground fuel tanks. Two of them have a 45,459-litre capacity and the other one has a 65,000-litre capacity. In August 2008, the fuel equipment was checked by a consulting engineering firm and a certificate of compliance was issued on August 13<sup>th</sup> 2008. This inspection is arranged every three years, in compliance with Québec's *Highway Safety Code*.

We examined the security of the fuel pumps and the controls related to the refuelling process. The fuel pumps are located on the premises of the municipal garage, which is fenced in. Daytime access is monitored by a security guard at the front entrance. At night, the fence doors are closed and a video camera system linked to the security guard station ensures on-site surveillance. The vehicle refuelling operation is also considered safe. Here are elements that are checked by the management system (Coen Corp.) at every refuelling:

- check of the employee identity card;
- check of the chip in the magnetic card to verify the identity of the vehicle;
- check and validation of the following information:
  - odometer data,
  - vehicle tank's capacity (in litres), as specified by the manufacturer,
  - number of kilometres travelled and hours operated for all stationary vehicles or auxiliary engines;
- automatic check of the type of fuel required for each vehicle.

We used the April 2009 monthly inventory report to compare the actual remaining balances indicated by the gauges and the estimated remaining quantities as indicated by the fuel management system. **We obtained evidence that this report is issued monthly and reviewed by the head of the Section des ressources matérielles. Only insignificant variations were observed.**

**Conclusion**

**Based on the findings of our audit, we determined that there are suitable controls in place for the distribution of fuel to users and that the fuel inventory is reconciled monthly.**