



# Report of the Auditor General of the Ville de Montréal to the City Council and to the Urban Agglomeration Council

For the Year Ended December 31, 2012

## First Responder Service and Fire Safety Cover Plan

(Service de sécurité  
incendie de Montréal)

5.9





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## List of Acronyms

ASSSM	Agence de la santé et des services sociaux de Montréal	SGIAP	integrated fire prevention activities management system
DSTI	Direction des stratégies et transactions immobilières	SIM	Service de sécurité incendie de Montréal
FR	first responder	SPVM	Service de police de la Ville de Montréal
FSCP	fire safety cover plan	STI	Service des technologies de l'information
GDD	decision-making record management system	TCEP	three-year capital expenditures program
MSP	Ministère de la Sécurité publique		
SGAP	fire prevention management system		

## 5.9. First Responder Service and Fire Safety Cover Plan (Service de sécurité incendie de Montréal)

### 1. Introduction

In recent years, management at the Service de sécurité incendie de Montréal (SIM) has been entrusted with two major projects: the implementation of a first responder (FR) service and the development and implementation of a fire safety cover plan (FSCP). The goal of the first project was to enable the SIM to expand the services that it offered citizens across all of the Montréal agglomeration and to change an entire organizational culture. The second project was intended to meet the requirements of the *Fire Safety Act*<sup>1</sup> in order to manage fire risks on the entire territory of the agglomeration in compliance with the directives and objectives of the Ministère de la Sécurité publique (MSP). In both cases, a project team reporting to SIM management was put in place.

### First Responder Service

At the time of the creation of the new city in 2002, eight fire stations belonging to the former suburban municipalities<sup>2</sup> already offered a FR Service. However the service operated differently from one fire station to the next and was not standardized. In 2003, Montréal city council decided to extend the FR service to the entire Island of Montréal and mandated SIM management to develop an island-wide standard FR service.

In 2005 and 2006, SIM management reached an agreement with firefighters on implementation of the FR service, harmonized the service in the eight fire stations that already offered it, and developed a plan to extend the service to the 58 other fire stations on the Island of Montréal (19 boroughs and 15 related municipalities). These actions, which SIM management supported, resulted, in subsequent years, in the city (under an urban agglomeration power) finalizing two memorandums of understanding and one agreement to implement an FR service and have it up and running:

- A 10-year memorandum of understanding (2007–2017) between the city and the Agence de la santé et des services sociaux de Montréal (ASSSM) and the Corporation d'urgences-santé, setting out the terms and conditions for involvement of the parties in implementing the FR service and funding for the city (under an urban agglomeration

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<sup>1</sup> RSQ, chapter S-3.4

<sup>2</sup> Beaconsfield, Dollard-des-Ormeaux, Hampstead, Kirkland, Montréal-Ouest, Outremont, Pointe-Claire and Westmount.

power). This memorandum was approved by the urban agglomeration council in March 2007.

- A 10-year memorandum of understanding between the city and the Corporation d'urgences-santé (2007–2017) for the acquisition of goods and services. This memorandum was approved by the urban agglomeration council in March 2007, and amended in 2011.
- An agreement between the city and the Association des pompiers de Montréal for implementation of an FR service was signed in January 2007, and integrated into the existing collective agreement.

The purpose of these agreements was to provide a framework for the implementation of the FR service, based on the following objectives:

- To set up an FR service that would be integrated into the chain of pre-hospital emergency services across the entire territory of Montréal;
- To reduce population morbidity and mortality rates, in particular by reducing the response time of the pre-hospital emergency services system.

To ensure that the FR service would be up and running, SIM management prepared a three-year implementation plan (2007–2009) whose main activities were:

- To harmonize the SIM's communication procedures with those of the Corporation d'urgences-santé;
- To provide firefighters with necessary basic training (62 hours) and ongoing training (24 hours every two years) to enable them to act as FRs and maintain their certification;
- To acquire the necessary equipment for FR interventions (including kits, specialized devices, etc.); and
- To refurbish the vehicles in the existing fleet and acquire additional vehicles.

SIM management prepared cost estimates for the three-year program. These appear in Table 1.

**Table 1 – Initial Cost Estimates for  
the Implementation and Start-Up Period of the FR Service  
(in thousands of dollars)**

	2007	2008	2009	Total
<b>Expenditures</b>				
<b>Implementation costs</b>				
No. of fire stations to be integrated	19	18	21	58
Amount	\$4,290.7	\$3,626.3	\$4,436.8	\$12,353.8
<b>Operating costs</b>				
No. of active fire stations – start of year	8			
No. of active fire stations – end of year	27	45	66	
Amount	\$2,501.1	\$5,481.4	\$8,389.1	\$16,371.6
<b>Total expenditures</b>	<b>\$6,791.8</b>	<b>\$9,107.7</b>	<b>\$12,825.9</b>	<b>\$28,725.4</b>
<b>Revenues<sup>a</sup></b>				
Based on the memorandum of understanding	<b>\$7,207.5</b>	<b>\$5,500.0</b>	<b>\$5,500.0</b>	<b>\$18,207.5</b>
<b>TCEP<sup>b</sup></b>				
Acquisition of vehicles	<b>\$2,210.0</b>	<b>\$2,000.0</b>	<b>\$2,000.0</b>	<b>\$6,210.0</b>

<sup>a</sup> Amounts to be indexed yearly at the rate set by the Government of Québec.

<sup>b</sup> Three-year capital expenditures program.

Source: SIM, 2007

The anticipated total cost of the FR service during the three-year implementation and start-up period was \$28,725,400. For the same period, the city expected to receive \$18,207,500 (on behalf of the agglomeration) as compensation from the ASSSM. In terms of the acquisition of vehicles, SIM management anticipated allocating \$6,210,000 for the purchase of seven fire engines.

Appendix 4.1 presents detailed estimates of the implementation and operating costs for the years 2007 to 2009.

## Fire Safety Cover Plan

The main purpose of an FSCP is to determine how fire safety services are to be organized on a given territory. It is essentially a risk management exercise, that is, an analysis of the fire risks present on a territory with the objective of planning prevention measures to reduce potential fire hazards and planning the necessary responses to limit the harmful effects when fire does occur.

Adopted in December 2008 by the Montréal urban agglomeration council, the FSCP established the actions that needed to be taken, along with the additional resources that would be required, to comply with the directives issued by the *Ministre de la Sécurité publique* regarding fire safety:

- reduce loss of life;
- reduce material losses resulting from a fire;
- increase the effectiveness of municipal bodies in this field;
- obtain immunity from prosecution.

These directives<sup>3</sup> were aimed at achieving eight objectives decreed by the MSP:

- **Objective 1:** Given the proven effectiveness of preventive measures in reducing fires, prioritize fire prevention approaches and measures to protect citizens and our heritage from fire.
- **Objective 2:** Taking into account existing resources at the regional level, structure fire safety services, plan the organization and delivery of rescue operations, and plan conditions for response in low-risk situations within the urbanisation parameters defined in the development plan, to deploy a strike force that can intervene effectively.
- **Objective 3:** Taking into account existing resources, structure fire safety services, plan the organization and delivery of emergency services, and plan conditions for response in the case of other classes of risks, that can deploy an optimum strike force.
- **Objective 4:** Compensate for future shortcomings in fire response through adapted self-protection measures.
- **Objective 5:** In the case of other disaster risks that are likely to require the use of fire safety resources, plan the organization of rescue operations and plan conditions of response that will enable the deployment of an optimum strike force using available resources at the regional level.
- **Objective 6:** Maximize the use of fire safety resources.
- **Objective 7:** Act at the supramunicipal level of the regional county municipalities (MRC) to organize and manage certain fire safety operations.
- **Objective 8:** Plan fire safety with a view to linking together resources and organizations with other public safety structures, such as civil security, emergency services, pre-hospital emergency services or police services.

SIM management made provisions in its FSCP for a 5-year implementation plan (2009–2013) to achieve these objectives. The plan revolved around three components: prevention (consisting of six programs aimed at improving fire safety on the territory of the Montréal

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<sup>3</sup> *Directives of the Ministre de la Sécurité publique in the area of fire safety, Gazette officielle du Québec, Part 2, Vol. 133, No. 22, May 30, 2001, pp. 3315-61.*

agglomeration), response through the organization of an optimum strike force, and the provision of water in the event of a fire.

In 2008, SIM management estimated that the operating budget for the five years needed to fully implement the FSCP would be \$63,399,400 and that investments would total \$30,369,100.

**Table 2 – Cost Estimates for Implementation of the FSCP**  
*(in thousands of dollars)*

	2009	2010	2011	2012	2013	Total
Operating budget <sup>a</sup>	4,598.6	7,376.0	12,666.8	17,701.0	21,057.0	<b>63,399.4</b>
TCEP	3,148.5	7,091.3	2,855.0	11,772.5	5,501.8	<b>30,369.1</b>

<sup>a</sup> Estimates include debt servicing (interest to pay down the debt).

Source: SIM, April 2008

Following the favourable notice issued by the urban agglomeration council regarding the FSCP, the MSP deemed that the plan complied with its fire safety directives and issued a certificate of compliance on October 17, 2008. The urban agglomeration council subsequently adopted the FSCP at its December 18, 2008, session, and the plan came into force on January 1, 2009.

As a result, the two major projects that we mentioned are now in a major phase of development. In the case of the FR service, while implementation is completed, operating costs continue to rise while funding reached (in 2011) the ceiling of \$7,000,000 set out in the memorandum of understanding. In the case of the FSCP, whose objectives are of major importance, almost a year remains before implementation of the proposed activities will be completed. We believe, therefore, that conducting an audit at this stage in the development of these two projects is timely since it will enable us to see how the projects have unfolded to date and, if necessary, suggest adjustments.

## 2. Audit Scope

The objectives of our audit were to ensure that:

- Implementing the FR service achieved the expected results; and
- The FSCP was moving forward in accordance with the implementation plan adopted by the urban agglomeration council.

To do this, we looked at how the proposed completion schedules and costs were monitored, as well as at the accountability mechanisms that were put in place to report on the progress of the work. In order to understand the legal obligations that the SIM faced in regard to the FR service and the FSCP, we also familiarized ourselves with the laws, regulations and agreements that form the framework of these obligations.

Our audit was conducted with the SIM managers who were directly involved in implementing the FR service and in carrying out the implementation plan of the FSCP. In addition to key SIM staff, we also met with individuals at the head of the Service des technologies de l'information (STI), the Direction des stratégies et transactions immobilières (DSTI), which reports to the Service de la concertation des arrondissements et des ressources matérielles, and the Service de l'eau, who were directly involved, in a supporting role, in running the operational data system used by the FR service or in completing the implementation of the FSCP.

Our audit covered the implementation and start-up period, as well as the consolidation period, of the FR service (2007–2011), and the implementation period of the FSCP (2009–2012). Our work extended mainly from May to July 2012.

### 3. Findings and Recommendations

#### 3.1. First Responder Service

The implementation of the FR service was completed in 2009 throughout the Montréal agglomeration, with the exception of Ville de Côte-Saint-Luc, which operates its own FR service.<sup>4</sup>

The FR service is operational in the SIM's 65 fire stations and is currently in the consolidation phase. In 2011, more than 1,800 firefighters out of a total of 2,392 active firefighters were certified as FRs. Since its launch in 2007, the FR service has carried out 244,844 responses and has maintained an average response time of 4 minutes, 50 seconds, which is well below the reference target response time of 7 minutes, 59 seconds, set out in the memorandum of understanding between the ASSSM, the Corporation d'urgences-santé and the city (under an urban agglomeration power).

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<sup>4</sup> Section 28.1 of the *Act respecting the exercise of certain municipal powers in certain urban agglomerations* (RSQ, chapter E-20.001) provides an exception for Ville de Côte-Saint-Luc. However, this exception was made to this bill in 2008 (*An Act to amend various legislative provisions concerning Montréal*, SQ, 2008, chapter 19).

Although the FR service is now deployed in all the island's fire stations and the expected response time is being largely met, we evaluated the extent to which implementing the FR service was instrumental in achieving the anticipated results. We will begin here by briefly describing how the implementation of the service unfolded over the first three years, in keeping with the goal of training firefighters and deploying FR services. Secondly, we will examine the degree of compliance with the obligations set out in the memorandum of understanding with the ASSSM and the Corporation d'urgences-santé. Finally, we will examine the cost to the agglomeration of receiving these FR services since the memorandum of understanding came into force, and we will address the issue of accountability reporting.

### 3.1.1. Management of the Implementation

#### 3.1.1.A. Background and Findings

An umbrella strategy was deployed at the time of implementation of the FR service, which spelled out in a coherent manner the main components (organizational, human, material and financial resources) of the plan.

This implementation strategy was established jointly with the Corporation d'urgences-santé, the ASSSM and the SIM based on the following parameters:

- territorial map of the agglomeration;
- availability of Urgences-santé trainers;
- availability of firefighter recruits.

At the start of the project in 2007, a governance structure was put in place, which consisted of a governing board made up of managers of the SIM, the ASSSM and the Corporation d'urgences-santé, a steering committee made up of the project heads at the SIM and the Corporation d'urgences-santé, and six working committees. Subsequently, in 2008, SIM management completed the coordination and completion structure by creating:

- A governing board overseeing the memorandum of understanding, made up of representatives from the SIM, the MSP, the ASSSM and the Corporation d'urgences-santé;
- Joint coordination (the SIM and the Corporation d'urgences-santé) of working tables composed of two coordinators, one from the SIM and one from the Corporation d'urgences-santé;
- Three working tables (operationalization, training and quality assurance, and technology), each reporting to two individuals, one from the SIM and the other from the Corporation d'urgences-santé;

- Eight working groups whose members came from the SIM, the STI and the Corporation d'urgences-santé. These groups worked on specific sectors (purchasing and supply, communications and media relations, training, quality assurance, computer-assisted scheduling, telecommunications, operations of the Centre de communication santé, and reporting).

Implementation of the FR service was not to interfere with operations related to the SIM's mission. To ensure this, SIM management planned the training activities for firefighters over three years. It also made provisions for the gradual implementation of the FR service to keep pace with the training of the nine cohorts of firefighter FRs. Table 3 summarizes this plan.

**Table 3 – Plan of Training Activities and Deployment of the FR Service on the Territory Served by the SIM**

	Boroughs and related municipalities	Training	Implementation
<b>2007 implementation phases – 19 new FR fire stations</b>			
<b>Phase 1</b>	L'Île-Bizard/Sainte-Geneviève/ Sainte-Anne-de-Bellevue/Pierrefonds/Senneville/ Roxboro/Dorval/L'Île-Dorval	Spring 2007	Summer 2007
<b>Phase 2</b>	Ahuntsic/Cartierville/Montréal-Nord	Fall 2007	Fall 2007
<b>Phase 3</b>	Anjou/Rivière-des-Prairies/ Pointe-aux-Trembles/Montréal-Est/ Mercier/Hochelaga-Maisonneuve	Fall 2007	End of 2007
<b>2008 implementation phases – 18 new FR fire stations</b>			
<b>Phase 1</b>	Saint-Laurent/Mont-Royal/Lachine/LaSalle	Start of 2008	Spring 2008
<b>Phase 2</b>	Villeray/Saint-Michel/Parc-Extension/ Saint-Léonard	Spring 2008	Summer 2008
<b>Phase 3</b>	Le Plateau-Mont-Royal/Rosemont/ La Petite-Patrie	Fall 2008	End of 2008
<b>2009 implementation phases – 21 new FR fire stations</b>			
<b>Phase 1</b>	Ville-Marie/Île Sainte-Hélène/ Mercier/Hochelaga-Maisonneuve	Start of 2009	Spring 2009
<b>Phase 2</b>	Le Sud-Ouest/Verdun/l'Île-des-Sœurs	Spring 2009	Summer 2009
<b>Phase 3</b>	Côte-des-Neiges Notre-Dame-de-Grâce/ Ville-Marie/Côte-Saint-Luc	Fall 2009	End of 2009

Source: SIM, 2007

Overall SIM management put in place structures and tools that enabled it to implement the FR service within the planned completion dates. Through the training program that it instituted, management was able to certify firefighter FRs in accordance with the

requirements of the bill<sup>5</sup> and to set up the FR service in the fire stations based on the proposed schedule.

### 3.1.2. Obligations Set Out in the Memorandum of Understanding

#### 3.1.2.A. Background and Findings

The FR service essentially consists of administering the care needed by a victim of a vital medical or trauma emergency, in accordance with established clinical response protocols. In summary, for the SIM, this FR service implies the following actions:

- Respond immediately to a request dispatched by the Centre de communication santé and go to the scene as soon as the call is received;
- Perform a summary stabilization of the victim to prevent deterioration of the person's condition while awaiting the arrival of the ambulance technicians;
- Communicate the necessary information for case management of the victim by the ambulance technicians and assist them in performing their duties;
- Complete a "First Responders" pre-hospital response report.

The FR service and responses by firefighter FRs are governed by the bill, as well as by the memorandums of understanding reached by the city (under an urban agglomeration power).

Our audit showed that SIM management had fulfilled its obligations, as outlined in the memorandums of understanding reached between the ASSSM and the Corporation d'urgences-santé, in all respects except the one dealing with radio communication.

The radio communication systems of the Corporation d'urgences-santé and of the city (under an urban agglomeration power) need to be linked to ensure transparent communications between the SIM's communications centre, the Centre de communication santé, the FRs and the ambulance technicians. To avoid any confusion, article 6 of the memorandum of understanding provides for an agreement to be reached between the Corporation d'urgences-santé and the SIM aimed at harmonizing the radio codes used by firefighter FRs and ambulance technicians.

At the time of our audit, this agreement had still not been reached. Such a situation could lead to confusion in communications between firefighter FRs and the ambulance technicians of the Corporation d'urgences-santé during a response, with consequences for

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<sup>5</sup> The *Act respecting pre-hospital emergency services* (RSQ, chapter S-6.2), among other things, defines the roles and responsibilities of FRs. Moreover, the *Regulation respecting the professional activities that may be engaged in within the framework of pre-hospital emergency services and care* (*Gazette officielle du Québec, Part 2, Vol. 144, No. 5, February 1, 2012, pp. 685-8*) describes the activities that FRs may perform.

the victims. It should be noted that an administrative directive issued by the SIM to all staff in April 2008 states that clear language and not radio codes are to be used during communications with the Corporation d'urgences-santé.

Given that the mandate of the governing board overseeing the memorandum of understanding is specifically to facilitate interfacing between the parties and also to conduct periodic reviews of the memorandum of understanding upon completion of the implementation and start-up of the FR service and every two years thereafter, it is our opinion that the SIM should request that this board clearly issue a ruling, in writing, about the need for a radio communication agreement. If an agreement is still needed, a completion date should be set and a determination made as to whether or not it requires approval by the urban agglomeration council. If it is no longer needed, the memorandum of understanding approved by the urban agglomeration council in March 2007 should be amended to reflect the parties' intention.

#### 3.1.2.B. Recommendation

**We recommend that the Service de sécurité incendie de Montréal obtain a written ruling from the governing board overseeing the memorandum of understanding as to the need to reach a radio communication agreement (as set out in article 6 of the memorandum of understanding) so that appropriate actions can be taken, either to comply with this memorandum of understanding, or to amend said memorandum based on the parties' intention and, if necessary, establish a completion date and obtain the necessary authorizations.**

#### Business unit's response:

*[TRANSLATION] A meeting with the Corporation d'urgences-santé is planned for February 2013 to implement a temporary "in the field" interoperability solution while awaiting implementation of the new SERAM radio communication network (expected to be in service by mid-March 2014).*

*A needs assessment for a formal radio communication agreement will be done in the context of the review of the current agreement. **(Planned completion: June 2013)***

### 3.1.3. Costs

#### 3.1.3.A. Background and Findings

One of the ASSSM and the Corporation d'urgences-santé's objectives in entrusting the SIM to deliver the FR service was to reduce population morbidity and mortality rates, in particular by reducing the response times of the pre-hospital emergency services system.

Article 8 of the memorandum of understanding, which deals with mutual agreements, translated this objective into action. The city (under an urban agglomeration power) agreed to achieve set target goals in response times and the quality of pre-hospital emergency services.

In the case of response times, achievement of the desired outcome was directly reflected in funding, which we will address later. Regarding quality of services, this involved complying with the clinical protocols to be applied during responses (based on the guidelines prepared by the Ministère de la Santé et des Services sociaux). Two employees (paramedics) of the Corporation d'urgences-santé were assigned full-time to the SIM's Division des premiers répondants to review these responses. Based on the information obtained from the manager in charge, responses involving cardiac arrest and injections of epinephrine are systematically reviewed, while other responses are reviewed on an as needs basis. In both situations, a follow-up is done with the FRs, if necessary.

In return for the city's commitments, the ASSSM agreed to provide the city (under an urban agglomeration power) with funding during the three years of the implementation and start-up phase. Following this, proposed funding would be determined based on a performance scale. Table 4 summarizes the parameters of this funding. The amounts are expressed in 2006 dollars and a provision was made for indexation in the memorandum of understanding.

**Table 4 – Funding Parameters Based on the Memorandum of Understanding**

Implementation and start-up period		Consolidation period starting in 2009	
Government of Québec's fiscal year <sup>a</sup>	Funding <sup>b</sup> allocated without taking into account performance targets	Funding <sup>b</sup> based on achieving the performance target of 7 minutes, 59 seconds	
2006–2007	\$3,000,000	Base amount to fund the management infrastructure	\$1,100,000 base amount
2007–2008	\$5,500,000	If at least 70% of the targeted calls meet the performance target	\$3,300,000
2008–2009	\$5,500,000	If at least 80% of targeted calls meet the performance target	\$5,500,000
		If at least 90% of the targeted calls meet the performance target	\$7,000,000
		If more than 90% of the targeted calls meet the performance target	\$7,000,000 maximum

<sup>a</sup> The government's fiscal year is for the period from April 1 to March 31.

<sup>b</sup> Indexed yearly based on the rate set by the Government of Québec.

Source: Memorandum of understanding for the implementation of the FR service, March 2007

At the time of signing of the memorandum of understanding, the city (under an urban agglomeration power) recognized the value of an FR service by designating the SIM to implement this service on condition that the Government of Québec provide sufficient funding for this activity. During our audit, we analyzed the costs of the FR service since its implementation. For the purposes of this analysis, we examined implementation and start-up costs (2007–2009), post-implementation costs (2010–2011) and, finally, funding received.

Table 5 presents annual cost estimates for the FR service implementation and start-up period, along with real costs incurred, as well as operating costs for the period of consolidation of the service. Lastly, it shows the funding received during the implementation and start-up period, as well as during the period of consolidation of the FR service. Appendix 4.1 details the cost estimates put forward by SIM management.

**Table 5 – Costs and Revenues of the FR Service During  
the Implementation and Start-Up Period and the Consolidation Period  
(in thousands of dollars)**

	Implementation and start-up period				Consolidation period			
	2007	2008	2009	Total 2007–2009	2010	2011	Total 2007–2011	2012 <sup>a</sup> estimates
<b>Costs</b>								
<b>Implementation</b>								
No. of fire stations to be integrated	19	18	21	58				
Anticipated costs	\$4,290.7	\$3,626.3	\$4,436.8	\$12,353.8	\$234.3			
Real costs	\$4,290.7	\$4,554.0	\$5,845.7	\$14,690.4	\$0.0			
<b>Variance (anticipated - real)</b>	<b>\$0.0</b>	<b>(\$927.7)</b>	<b>(\$1,408.9)</b>	<b>(\$2,336.6)</b>	<b>\$234.3</b>	<b>\$0.0</b>	<b>(\$2,102.3)</b>	
<b>Operating expenses</b>								
No. of active fire stations	27	45	66	66	65 <sup>b</sup>	65		65
Anticipated costs	\$2,501.1	\$5,481.4	\$8,389.1	\$16,371.6	\$9,798.1	\$13,619.1	\$39,788.8	\$13,899.1
Real costs	\$2,501.1	\$5,116.0	\$8,275.0	\$15,892.1	\$12,187.8	\$13,603.9	\$41,683.8	\$14,095.8
<b>Discrepancy (anticipated - real)</b>	<b>\$0.0</b>	<b>\$365.4</b>	<b>\$114.1</b>	<b>\$479.5</b>	<b>(\$2,389.7)</b>	<b>\$15.2</b>	<b>(\$1,895.0)</b>	<b>(\$196.7)</b>
<b>Total anticipated costs</b>	<b>\$6,791.8</b>	<b>\$9,107.7</b>	<b>\$12,825.9</b>	<b>\$28,725.4</b>	<b>\$10,032.4</b>	<b>\$13,619.1</b>	<b>\$52,376.9</b>	<b>\$13,899.1</b>
<b>Total real costs</b>	<b>\$6,791.8</b>	<b>\$9,670.0</b>	<b>\$14,120.7</b>	<b>\$30,582.5</b>	<b>\$12,187.8</b>	<b>\$13,603.9</b>	<b>\$56,374.2</b>	<b>\$14,095.8</b>
<b>Variance (anticipated - real)</b>	<b>\$0.0</b>	<b>(\$562.3)</b>	<b>(\$1,294.8)</b>	<b>(\$1,857.1)</b>	<b>(\$2,155.4)</b>	<b>\$15.2</b>	<b>(\$3,997.3)</b>	<b>(\$196.7)</b>
<b>Revenues<sup>c</sup></b>								
Indexed revenues	\$7,207.5	\$5,500.0	\$5,788.6	\$18,496.1	\$6,003.0	\$10,571.4	\$35,070.5	\$7,953.0
<b>Variance (revenues - real costs)</b>	<b>\$415.7</b>	<b>(\$4,170.0)</b>	<b>(\$8,332.1)</b>	<b>(\$12,086.4)</b>	<b>(\$6,184.8)</b>	<b>(\$3,032.5)</b>	<b>(\$21,303.7)</b>	<b>(\$6,142.8)</b>

<sup>a</sup> Real costs represent the projected costs to December 31, 2012.

<sup>b</sup> Fire station 79 in Hampstead was closed at the time of implementation of the FSCP.

<sup>c</sup> Amounts indexed yearly based on the rate set by the Government of Québec.

In the case of the implementation and start-up period, our analysis of the results led us to conclude that the real costs of the FR service were 19% higher than the cost estimated originally in the decision-making summary presented to the urban agglomeration council in March 2007, or \$14,690,400 compared with \$12,353,800. This increase of \$2,336,600 can be attributed to:

- Certifying and maintaining certification for a higher number of firefighters targeted (\$185,300);
- The cost of overtime hours to replace firefighters being trained, since the SIM's basic mission could not be compromised (\$242,700);
- Upward adjustment in the acquisition costs of equipment and various contingency costs (\$484,400); and
- Calling on the services of firefighters as attendants during FR responses instead of instructors from the Corporation d'urgences-santé as originally planned (\$1,424,200).

The operating costs of the FR service increased steadily but did not exceed estimates. The FR service was gradually activated in the fire stations as firefighter first responders received their certification.

In the case of the consolidation period, we concluded that operating costs rose significantly during 2010. This can be explained in large part by the retroactive application of an arbitration settlement awarded during that year, in response to claims made by the Association des pompiers de Montréal. The arbitration decision ordered that the annual bonus paid to firefighter FRs be increased from \$1,500 to \$1,950 and that the hourly bonus be increased from \$1.10 to \$1.50. Following this, costs continued to rise in 2011, with the certification of 190 additional firefighters who had completed the necessary training. Consequently, they were paid an amount equivalent to the training costs and annual bonus. It should be noted that, pursuant to the most recent collective agreement signed in March 2012, the annual bonus and hourly bonus will now be included in the salary of firefighter FRs and will come into force as of January 1, 2012. The impact of these increases on operating costs is fairly substantial.

Finally, the ASSSM's contribution is the only source of external revenue that supports the FR service. As mentioned earlier, the amount allocated to March 31, 2009, was fixed in the memorandum of understanding without taking into account the performance target. As of April 1, 2009, this funding was subject to performance targets. We concluded that the SIM was entitled to the maximum amount permitted under the memorandum of understanding. In 2011, an amount of \$10,571,400 was paid to the city (under an urban agglomeration power) and included adjustments based on the performance of the FR service for the periods of 2009–2010 and 2010–2011. In fact, the SIM achieved a response time of 4 minutes and 29 seconds in 2009, 4 minutes and 19 seconds in 2010, and 4 minutes and 22 seconds in 2011, for an average response time of 4 minutes and 23 seconds compared with the target response time for the system of 7 minutes and 59 seconds. The FR service provided by the SIM, therefore, met the highest expectations set out in the memorandum of understanding.

In spite of indexation and the service's progression based on achieving its performance targets, we concluded that the contribution did not cover all the operating expenses of the FR service provided by the SIM.

For the first five years covered by the memorandum of understanding (2007 to 2011), we concluded that the amount received was \$35,070,500, while the total cost incurred by the SIM for the implementation and operation of the FR service was \$56,374,200. The result, at December 31, 2011, was a net cumulative cost to the agglomeration of \$21,303,700. While

2012 is not yet over, a shortfall can be expected in the range of \$6,142,800, for a net cumulative cost to the agglomeration of \$27,446,500.

The shortfall can certainly be explained in part by the arbitration decision, which was unknown at the time of the signing of the memorandum of understanding. Based on the information received, another explanation is the fact that the ASSSM's estimated contribution was based on a reference number of 50,000 responses. In fact, the number of responses has been greater than this since 2009. In 2011, the SIM responded to more than 72,426 calls or 44% more than originally anticipated. This situation had repercussions on costs related to the increased use and operation of fire vehicles (maintenance, fuel, wear and tear). Again according to information received, the SIM advanced the premise of using existing resources (firefighters, trucks and fire stations) and drawing inspiration from response models already in place in Canada and the United States.

In conclusion, implementation of the FR service on the territory of the Montréal agglomeration represents an increase in the level of service provided not only to citizens but also to non-residents who are in the city temporarily. This level of service has contributed to improving the response time of pre-hospital services.

According to reports prepared by Urgences-santé, the FR service has also contributed to improving the survival rate of victims of cardiac arrest during calls. According to statistics are for the regions of Laval and of Montréal, the rate of survival has risen from 12.2% in 2007 to 24.3% in 2010.

However the cost overage noted as of Year 2 is being assumed by the agglomeration. In our opinion, the SIM should perform an analysis to determine, on the one hand, the causes of this overage and, on the other hand, to explore possible solutions to reduce the operating costs it is assuming, such as finding other sources of funding, for example charging fees. This kind of analysis would also enable SIM management to approach the ASSSM to obtain financial compensation to cover more adequately the real cost of the services rendered.

### 3.1.3.B. Recommendation

We recommend that the **Service de sécurité incendie de Montréal**, in an effort to achieve fiscal balance for the first responder service:

- Approach the **Agence de la santé et des services sociaux de Montréal** to obtain adequate funding to cover the real cost of the services rendered, given the higher percentage of responses (more than 40%) compared with initial estimates, as well as the arbitration ruling rendered in 2010;
- Look into the possibility of other sources of funding;
- Analyze various solutions to reduce operating costs.

#### Business unit's response:

*[TRANSLATION] A comprehensive review of the memorandum of understanding is under way (begun in 2012).*

*One of the main objectives of this review is to explore avenues for cost savings, including:*

- *Reducing the number of FR interventions by regulating calls to determine more accurately when to dispatch resources based on the level of the emergency and the location of the resources;*
- *Improving supply processes;*
- *Improving the teaching structure.*

*The project committee's recommendations are to be submitted, in March 2013, to the governing board overseeing the memorandum of understanding. **(Completed, March 2013)***

*Following this, the governing board overseeing the memorandum of understanding is to submit them to the **Ministère de la Santé et des Services sociaux** accordingly. **(Planned completion: December 2013)***

## 3.1.4. Accountability Reporting

### 3.1.4.A. Background and Findings

In order for managers to be informed about the progress of the projects with which they have been entrusted, accountability mechanisms need to be put in place. Management reports should be produced periodically and contain information that is sufficiently relevant to assess the extent to which target objectives have been achieved and at what cost. These reports should be useful for decision-making on a timely basis.

In this regard, our audit consisted in inquiring about the mechanisms that were put in place to be kept abreast of how activities surrounding the FR service were managed.

During the implementation period (2007–2009), the project team produced follow-up reports for SIM management. These reports provided information on how implementation of the FR service was progressing in terms of cohorts that were trained and the phasing in of the service in fire stations based on the program. They made it possible, therefore, to evaluate to what extent the target objectives for implementation of the FR service had been achieved.

At the end of the implementation phase, responsibility for the FR service was entrusted to the Division des premiers répondants. Beginning in 2010, this division continued to produce and send progress reports to SIM management on the work completed during the year. We concluded, nevertheless, that there had been no formal accountability report provided to the Direction générale regarding the FR service.

Furthermore, article 4 of the memorandum of understanding stated that the governing board overseeing the memorandum of understanding should produce a periodic evaluation at the end of the implementation and start-up period and every two years thereafter. While exchanges did take place on an ongoing basis between the SIM, the ASSSM and the Corporation d'urgences-santé, no such evaluation reports were produced.

In conclusion, no formal accountability report was provided to the Direction générale regarding the FR service that would have enabled management to ensure appropriate actions were taken in a timely manner. In our opinion, there should have been accountability reporting not only for work done in the area of responses but also for costs incurred by the agglomeration for services rendered, as well as information on the city's contribution (under an urban agglomeration power) to achieving the objectives of the FR service, reducing population morbidity and mortality rates, including by reducing the response time of the pre-hospital emergency services system. Finally, the Direction générale should also have been informed of the results of the periodic evaluation of the memorandum of understanding.

#### 3.1.4.B. Recommendation

**We recommend that the Service de sécurité incendie de Montréal request that the governing board overseeing the memorandum of understanding evaluate said protocol, as stated in article 4, in order to ensure compliance with this article.**

#### **Business unit's response:**

*[TRANSLATION] The meetings and work of the governing board overseeing the memorandum of understanding will be planned as stated in article 4 of the memorandum of understanding. (Completed, March 2013)*

### 3.1.4.C. Recommendation

We recommend that the Service de sécurité incendie de Montréal periodically produce an accountability report for the Direction générale on the status of:

- Responses carried out by the first responders service;
- Costs incurred on behalf of the agglomeration;
- The contribution of the city (under an urban agglomeration power) in achieving the target objectives of the first responder service, i.e. reducing population morbidity and mortality rates, including by reducing response time of the pre-hospital emergency services system;
- Results of the periodic evaluation of the memorandum of understanding reached with the Agence de la santé et des services sociaux de Montréal and the Corporation d'urgences-santé;

so that the necessary corrective measures can be applied to the management of the first responder service or so that the appropriate submissions are made to the Government of Québec.

#### Business unit's response:

*[TRANSLATION] During their regularly scheduled statutory meetings, the SIM manager reports to the city manager on ongoing achievements, risks and solutions.*

*Costs incurred on behalf of the agglomeration are presented yearly to the Commission de la sécurité publique as part of the presentation of the SIM activity report, as well as at the time of preparing and presenting the SIM's budget.*

*The city's contribution to achieving the target objectives of the FR service is presented annually to the Direction générale and the Commission de la sécurité publique during the presentation of the SIM's activity report including the number of responses, the profile of the types of calls, and the response time of the pre-hospital emergency services system. Moreover, the report on the rate of resuscitation is included as soon as it is published by the Corporation d'urgences-santé, which is the only body authorized to provide the clinical data.*

*The periodic examination of the memorandum of understanding will be included on the agenda of the regularly scheduled statutory meetings between the SIM manager and the city manager. **(Planned completion: December 2013)***

## 3.2. 2009–2013 Fire Safety Cover Plan

The FSCP implementation plan, as adopted in December 2008, is based essentially on the effective completion of the following three components:

- **Prevention component:** this component includes six programs that are aimed at improving fire safety on the territory of the Montréal agglomeration by reducing fires and their repercussions. Below is an overview of the six programs:
  - Program 1 – Incident assessment and analysis: Use computer management tools and the Fire Commissioner's Office to assess and analyze incidents in order to determine prevention, inspection and public education activities,
  - Program 2 – Municipal by-law: Adopt and apply an agglomeration fire prevention by-law aimed at updating and standardizing the by-law in effect in the boroughs and related municipalities, taking into account their own particular needs,
  - Program 3 – Smoke detectors: Increase the number of operational smoke detectors, currently estimated at 70%, to reach a penetration rate of 75% to 80% in rental units and residences, especially in at-risk neighbourhoods,
  - Program 4 – Periodic inspection of the highest fire hazards: Continue to carry out periodic inspection of the highest fire hazards, using five specific action sub-programs aimed at reducing the occurrence and consequences of fires in buildings classed as high-risk and very high-risk,
  - Program 5 – Public awareness activities: Boost public awareness activities that encourage the adoption of safe fire prevention behaviours and take appropriate measures in the event of fire,
  - Program 6 – Fire Commissioner's Office: Set up a Fire Commissioner's Office that brings together the competencies of experts from the SIM and the Service de police de la Ville de Montréal (SPVM) to research the causes of fire and conduct fire investigations. The latter program was inserted into the FSCP for information purposes;
- **Response component – strike force:** the goal of this component is to organize an optimum and effective strike force, by:
  - Closing fire station 79,
  - Building a training centre in the West Island,
  - Building three new fire stations (32, 59 and 63),
  - Refurbishing four fire stations (51, 56, 65 and 67),
  - Refurbishing the fire prevention offices,
  - Acquiring new vehicles, including two fire engines, two protection unit vehicles, two water trucks, and two aerial devices for responses,
  - Acquiring light vehicles for fire prevention;

- **Water supply component:** this component is aimed at improving the supply of water in the event of fire on the territory of the agglomeration, especially on the West Island, by:
  - Building underground reservoirs equipped with dry hydrants:
    - at Parc de l’Anse-à-l’Orme,
    - at the Morgan Arboretum,
    - near montée Wilson and chemin Bord-du-Lac in Île-Bizard,
    - near avenue Angus in Senneville,
  - Installing two water supply points at the ends of the Senneville water distribution system:
    - avenue Pacific,
    - the westernmost point of Anse-à-l’Orme.

To ensure that all activities for which it is responsible and for which it acts as coordinating manager are completed successfully, SIM management prepared a five-year implementation plan that included its human resources and funding needs. In the area of human resources, the plan provides for the creation of 68 new prevention positions and 126 new response positions (including four positions for the West Island training centre). In the area of funding, cost estimates for each of the five years are presented in summary form in Table 6.

**Table 6 – Cost Estimates for Implementation of the FSCP (2009–2013)**  
(in thousands of dollars)

	2009	2010	2011	2012	2013	Recurring at term
<b>Operating budget<sup>a</sup></b>						
Response	1,452.1	3,102.2	6,519.2	9,222.6	12,309.7	15,330.4
Prevention	3,146.5	4,273.8	6,147.6	8,478.4	8,747.3	8,760.7
<b>Total</b>	<b>4,598.6</b>	<b>7,376.0</b>	<b>12,666.8</b>	<b>17,701.0</b>	<b>21,057.0</b>	<b>24,091.1</b>

	2009	2010	2011	2012	2013	Total
<b>TCEP</b>						
Response	2,226.9	6,444.6	1,917.4	11,438.5	5,161.0	27,188.4
Prevention	921.6	646.7	937.6	334.0	340.8	3,180.7
<b>Total</b>	<b>3,148.5</b>	<b>7,091.3</b>	<b>2,855.0</b>	<b>11,772.5</b>	<b>5,501.8</b>	<b>30,369.1</b>

<sup>a</sup> Estimates include debt servicing (interest to pay down the debt).

Source: SIM, April 2008.

Since the implementation plan for the FSCP (2009–2013) was nearing its fifth and final year, in the course of our audit we evaluated the extent to which progress had been made based on the plan and what had been adopted by the authorities. We began by examining the

work that had been completed on each of the components of the FSCP. We then looked at project management as set out in the implementation plan for the FSCP, and at the costs of implementation. Finally, we examined accountability reporting for the FSCP.

### 3.2.1. Completion Status

The implementation plan is spread over five years, 2009–2013. The SIM defined and programmed in the delivery of all the projects planned for this period for each of the three components (prevention, response – strike force, and water supply). For the purposes of our audit, we evaluated the extent to which the completion dates were met or had been in the process of being met for each of the components. Table 7 presents a summary of the final expected results for each of the components, as well as the planned delivery year, as shown in the FSCP that was adopted in 2008 by the urban agglomeration council.

**Table 7 – Main Anticipated Results and Delivery Year  
Based on FSCP Components**

Components		
Prevention	Response – strike force	Water supply
<ul style="list-style-type: none"> <li>• <b>Program 1:</b> Evaluation and analysis of incidents supported by an operational SGAP<sup>a</sup> in 2011.</li> <li>• <b>Program 2:</b> Adoption of an agglomeration fire prevention by-law in 2012.</li> <li>• <b>Program 3:</b> <ul style="list-style-type: none"> <li>– Increase in the number of operational smoke detectors (19 boroughs and 15 related municipalities)</li> <li>– Annual verification of the presence of operational smoke detectors in at least 50,000 rental units and residences</li> </ul>                     End of 2013                 </li> <li>• <b>Program 4:</b> Completion of 22,500 class 3 and 4 inspections over five years End of 2013.</li> <li>• <b>Program 5:</b> Increase in public awareness activities, ongoing</li> <li>• <b>Program 6:</b> Setting up of a fire commissioner's office (included in the FSCP for information purposes)</li> </ul>	<ul style="list-style-type: none"> <li>• Construction of 3 new fire stations and a training centre:                             <ul style="list-style-type: none"> <li>– Fire station 59 in 2010</li> <li>– Fire station 63 in 2012</li> <li>– Fire station 32 in 2013</li> <li>– West Island training centre in 2012</li> </ul> </li> <li>• Refurbishment of 4 fire stations:                             <ul style="list-style-type: none"> <li>– Fire stations 56, 65 and 67 in 2010</li> <li>– Fire station 51 in 2012</li> </ul> </li> <li>• Refurbishment of the offices of the prevention teams in 2012.</li> <li>• Acquisition of additional vehicles:                             <ul style="list-style-type: none"> <li>– Prevention:                                     <ul style="list-style-type: none"> <li>➢ 15 light vehicles:   <ul style="list-style-type: none"> <li>➢ 3 in 2010</li> <li>➢ 4 in 2011</li> <li>➢ 4 in 2012</li> <li>➢ 4 in 2013</li> </ul> </li> </ul> </li> <li>– Response:                                     <ul style="list-style-type: none"> <li>➢ 9 heavy vehicles:   <ul style="list-style-type: none"> <li>➢ 2 in 2009</li> <li>➢ 2 in 2010</li> <li>➢ 2 in 2011</li> <li>➢ 1 in 2012</li> <li>➢ 2 in 2013</li> </ul> </li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Establishment of 4 supply points (water reservoirs and dry hydrants), as well as 2 new water mains between 2010 and 2011.</li> <li>• Establishment of 2 supply points (underground reservoir and dry hydrant) between 2012 and 2013.</li> </ul>

<sup>a</sup> Fire prevention management system.

Examination of the implementation plan led us to the following conclusions regarding each of the three components.

### 3.2.1.1. Prevention Component

#### 3.2.1.1.1. Program 1 – Evaluation and Analysis of Incidents

##### 3.2.1.1.1.A. Background and Findings

The aim of this program is to use computer tools for the purposes of analysis and to determine prevention actions to be taken. The FSCP was particularly concerned with

continued development and the renewal of the fire prevention management system (SGAP) in 2011.

Our audit showed a considerable delay in the development and implementation of the SGAP. In fact, as of 2009, the SIM had started reviewing the former SGAP to adapt it to its needs. After concluding that the SGAP did not have the necessary functionalities to ensure the management and execution of preventive activities and that it had data integrity problems, the SIM turned to the STI to develop and implement a complete technical solution. In 2011, the STI began working on a computer tool, which has since become known as the integrated fire prevention activities management system (SGIAP). For this project, the STI also made provisions to acquire portable computers that would enable prevention officers to use the SGIAP in the field in real time. According to the planned completion date set by the STI, this system will not be completely delivered until 2014, one year after the deadline for implementation of the FSCP (2009–2013).

Our work also led us to conclude that the costs of the initial SGAP project had not been estimated by the SIM at the time of developing the FSCP. It was only when the STI took charge of the SGIAP project, in 2011, that cost estimates appeared in the STI's TCEP. As of September 20, 2012, the estimated total cost of the SGIAP, when completed, was \$4,176,000.

We are of the opinion that the SIM should have properly defined its needs when the FSCP was being produced, which would have made it possible to establish a more realistic completion date and also to estimate the costs of the project more accurately.

Consequently, the new completion date planned for 2014 does not correspond to the FSCP sent to the MSP and which permitted the city (under an urban agglomeration power) to obtain a certificate of compliance. Regarding the FSCP, the *Fire Safety Act* states that any change or postponement in the planned completion deadlines must be authorized by the MSP. This authorization is in addition to the attestation of compliance. The *Fire Safety Act* states that the FSCP can be amended in certain cases and that this must be reviewed during the sixth year while complying with the procedure set out in the bill. In our opinion, in the current situation, the SIM should obtain the MSP's approval to postpone this project.

Moreover, since prevention represents a cornerstone in meeting the FSCP's objectives, in particular the decrease in fires, loss of life and damage costs, the development of this application is essential to the management of prevention activities. We are of the opinion, therefore, that every effort should be made to comply with the new planned completion date. It should be specified that the start up of this system and the operation of its database will

enable the SIM to manage inspection plans targeting high-risk areas and to determine priority inspections. It will facilitate awareness-raising activities by contributing to determining at-risk sectors. This targeted planning should improve the prevention teams' performance.

#### 3.2.1.1.1.B. Recommendation

We recommend that the Service de sécurité incendie de Montréal take all necessary means, when including a new project as part of amending or revising the fire safety cover plan, so that the latter is well defined and rests on a reliable estimation of costs in order to be able to evaluate with greater certainty the planned completion dates and costs.

#### Business unit's response:

*[TRANSLATION] Mechanisms are in place to define and evaluate costs, using the following tools:*

- *Participation of the Planification stratégique and Ressources financières divisions;*
- *Use of the city's decision-making record management system (GDD) to document files and notify the following authorities:*
  - *Direction générale,*
  - *Commission de la sécurité publique,*
  - *MSP,*
  - *Internal and external partners. (Planned completion: December 2013)*

#### 3.2.1.1.1.C. Recommendation

We recommend that the Service de sécurité incendie de Montréal obtain the approval of the Ministère de la Sécurité publique to delay the timeline for implementing the integrated fire prevention activities management system to 2014 in order to comply with the *Fire Safety Act* regarding fire safety cover plans.

#### Business unit's response:

*[TRANSLATION] Letter issued explaining the reasons and rationale for the postponement.*

*The annual statement will be submitted in March 2013, through the official GDD. (Completed, March 2013)*

#### 3.2.1.1.1.D. Recommendation

We recommend that the Service de sécurité incendie de Montréal take the necessary measures to ensure compliance with the new timeline for delivery of the integrated fire prevention activities management system so that it can facilitate inspection and awareness-raising actions.

#### Business unit's response:

*[TRANSLATION] Good project management practices, combined with regularly scheduled statutory meetings periodically with partners (the STI, the DSTI), will ensure compliance with delivery plans.*

- Governance;
- Planning and timeframe;
- Change requests;
- Follow-up;
- Documentation;
- Minutes of regularly scheduled statutory meetings. **(Planned completion: December 2013)**

### 3.2.1.1.2. Program 2 – Municipal By-Law

#### 3.2.1.1.2.A. Background and Findings

In developing the FSCP, the SIM's intention was to have a single fire prevention by-law adopted by all the cities in the agglomeration of Montréal. To do this, an amendment to the bill was necessary to give the urban agglomeration council clear jurisdiction in this area. The Direction du contentieux (currently the Service des affaires juridiques et de l'évaluation foncière) submitted a request to this effect in 2007. In the absence of any decision by the government, the SIM sought approval of the Fire Prevention By-law by the city council on January 23, 2012, which would apply to the city's 19 boroughs. As regarded the related municipalities, the SIM made representations so that each municipal council approve the same by-law. Based on the information and documents provided as of September 17, 2012, two-thirds of the 15 related municipalities had adopted said by-law. In our opinion, it is important that all the related municipalities adopt the fire prevention by-law proposed by the SIM in order to comply with the 2012 completion date set out in the implementation plan of the FSCP. This would enable prevention officers to apply a uniform by-law throughout the territory of the Montréal agglomeration regarding, in particular, minimum prevention standards and administrative regulations. Conversely, a by-law that is not uniform throughout the territory of the Montréal agglomeration could lead to problems when the time comes to apply the by-laws.

#### 3.2.1.1.2.B. Recommendation

We recommend that the Service de sécurité incendie de Montréal take the necessary measures to encourage all the related municipalities to adopt the *Fire Prevention By-law* proposed by the Service de sécurité incendie de Montréal, not only to comply with the planned completion date stated in the implementation plan of the fire safety cover plan but also to encourage uniform application of the by-law across the territory of the agglomeration.

#### Business unit's response:

*[TRANSLATION] Pursue the activities outlined in the current action plan in the related municipalities to have a fire prevention by-law adopted. (Planned completion: December 2013)*

### 3.2.1.1.3. Program 3 – Smoke Detectors

#### 3.2.1.1.3.A. Background and Findings

The aim of this program is to increase the number of operational smoke detectors in rental units and residences, in particular in at-risk neighbourhoods, so that the sounding of an alarm will help alert residents to the presence of a disaster in their home and lead them to exit the premises. When the FSCP was conceived, the SIM had estimated that 70% of smoke detectors were operational on the territory of the Montréal agglomeration. According to the implementation program, the distribution of new smoke detectors, as well as visits to check that smoke detectors were operational, should have been completed in order to increase the number of operational smoke detectors from 75% to 80%. Moreover, yearly verifications for at least 50,000 rental units and residences from 2010 to 2013 were also planned.

In fact, from 2009 to 2011, the SIM purchased 27,000 smoke detectors that it distributed free of charge. According to the 2009–2011 report, more than 100,000 visits, including 30,000 rental units, were completed by the end of 2011. At the time of our audit, the statistical reports produced by the Centre de services de l'expertise et du développement de la prévention indicated more specifically that 55,527 smoke detector checks were carried out in 2010, and 99,610 in 2011. At the time of our audit, the data for 2012 had not been compiled to allow us to calculate the rate of functional smoke detectors.

Even though more visits were completed than planned in 2010 and 2011, we concluded that the SIM had measured the rate of operational smoke detectors solely for 2011. We are of the opinion that the SIM should have measured this rate as of 2010 when it began the

visits as part of its program. In regard to 2011, based on the initial information received, the rate of operational smoke detectors was 78.2%. Once corrective measures were taken, in particular the distribution of batteries and smoke detectors, as well as the issuing of a notice of non-compliance, the rate of functional smoke detectors rose to 92.1%. While 2012 is still not over, the SIM should nevertheless calculate this rate during the year in order to evaluate the extent to which the objective is being reached and to adapt awareness-raising efforts, if necessary.

Moreover, although the rate of functional smoke detectors was calculated for 2011, we concluded that this information was not included in the yearly reports tabled at the urban agglomeration council and sent to the Ministre de la Sécurité publique (2009–2010 report and 2009–2011 report), although this objective was clearly mentioned in Program 3 related to smoke detectors. We are of the opinion that the information regarding this rate should be mentioned in the reports that are tabled at the urban agglomeration council and sent to the Ministre de la Sécurité publique.

#### 3.2.1.1.3.B. Recommendation

**We recommend that the Service de sécurité incendie de Montréal gauge the rate of operational smoke detectors during the year, for both 2012 and 2013, in order to evaluate to what extent the objective of the “Smoke Detector” Program is being achieved and to adapt awareness-raising activities, if necessary.**

#### Business unit’s response:

*[TRANSLATION] For 2012, information about the rate of operational smoke detectors will be included in the program reports.*

*For 2013, information about the rate of operational smoke detectors will be included in the program reports.*

*In collaboration with the regional managers, implement measures adapted to educational activities, where necessary. (Planned completion: December 2013)*

#### 3.2.1.1.3.C. Recommendation

**We recommend that the Service de sécurité incendie de Montréal provide information about the rate of operational smoke detectors in the reports sent to the urban agglomeration council and to the Ministre de la Sécurité publique in order to be aware of whether the target objective has been reached.**

**Business unit's response:**

*[TRANSLATION] Official link to the MSP. Yearly report issued.*

*2012 report submitted in March 2013 through the official GDD, in the form of documents showing the level of progress. (Completed, March 2013)*

### 3.2.1.1.4. Program 4 – Periodic Inspections of the Highest Risks

#### 3.2.1.1.4.A. Background and Findings

This program institutes periodic inspections of buildings that present high risks (class 3) and very high risks (class 4). The objective of the SIM according to the FSCP was 22,500 buildings, without specifying the distribution between categories 3 and 4. According to the information that appeared in the 2009–2011 report, only 4,300 inspections of categories 3 and 4 were carried out up to 2011 (20%). It should be specified that it was not possible to obtain distinct data for each of the categories. At the time of our audit, the follow-up report of the 2012 engagements, produced by the Centre de services de l'expertise et du développement de la prévention as of September 28, 2012, indicated that 9,383 additional inspections had been carried out, for a total of 13,683 inspections (61%). Therefore, 8,817 inspections (39%) still need to be carried out by December 31, 2013, to reach the 22,500 inspections planned in the implementation plan of the FSCP. Moreover, in order to evaluate the results obtained following these inspections, as well as the scope of the follow-up that was to be done by the prevention teams, we attempted to obtain the number of notices of non-compliance that were issued. The SIM was unable to provide us with the information requested.

Reaching this objective was to be facilitated by the implementation of SGIAP, which would contribute to improving the performance of the prevention teams by orienting the inspection activities to the highest risk sites. The delay in implementing this application could, therefore, ultimately have consequences on achieving the goal of 22,500 inspections. Although the final result of this activity is only expected in 2013, we are of the opinion that the situation requires closer planning and monitoring in order to comply with the planned completion date.

#### 3.2.1.1.4.B. Recommendation

We recommend that the Service de sécurité incendie de Montréal implement an inspection program for class 3 and class 4 buildings, complete with measurable objectives on a monthly basis, along with monitoring and evaluation measures to enable it to carry out the 22,500 inspections planned for December 31, 2013, in accordance with the fire safety cover plan.

#### Business unit's response:

*[TRANSLATION] Develop an action plan setting out the objectives for inspections on a monthly basis, as well as a process to monitor deliverables to ensure that objectives are met. (Completed, March 2013)*

### 3.2.1.1.5. Program 5 – Public Education Activities

#### 3.2.1.1.5.A. Background and Findings

This program consists in developing and applying tools and programs that encourage the adoption of safe behaviours to prevent fire. The awareness-building activities defined in the FSCP involve, in particular, the establishment of a collaboration of partners in contact with seniors, the determination of the highest risk sectors and vulnerable clients, and the aim of equipping fire stations with educational and promotional material to assist firefighters in their awareness-raising activities during visits to the public. Our audit led us to conclude that statistics were compiled for the years 2010 to 2012 regarding, among other things, the number of educational talks in day care centres and the number of talks in seniors residences. In 2011, educational and promotional material was delivered to eight fire stations for validation, with the intention of making it available in all fire stations.

Although the SIM did compile statistics for awareness-raising activities related to the highest risk sectors and vulnerable clients, our audit led us to conclude that measurable objectives had not been established. In our opinion, determining such measurable objectives facilitates the planning of activities and makes it possible to evaluate whether these have been achieved in relation to a target.

#### 3.2.1.1.5.B. Recommendation

We recommend that the Service de sécurité incendie de Montréal determine, for the year 2013 and at the time of reviewing the fire safety cover plan, measurable objectives for public awareness activities in order to facilitate the planning of activities and to enable their completion in relation to a target.

**Business unit's response:**

*[TRANSLATION] Develop an action plan setting out the objectives for public education activities, as well as a process to monitor deliverables to ensure that objectives are met. (Completed, March 2013)*

### 3.2.1.1.6. Program 6 – Fire Commissioner's Office

#### 3.2.1.1.6.A. Background and Findings

Although the fire commissioner's office was included in the FSCP, it is not part of the actual implementation plan since it is included for information purposes only. According to the people we met, the fire commissioner's office was included in the FSCP for information purposes only, since it required human and financial resources, as well as legislative amendments in order to be implemented, the latter being the main reason that explained the commissioner's office not being realized.

Moreover, the persons we met mentioned to us that good practices already exist around the holding of inquiries following a fire. In fact, as soon as a SIM inspector detects suspicious elements, the file is transferred to the SPVM and an inquiry is opened.

However, opinions are divided since a feasibility study carried out jointly by the SIM and the SPVM in 2006 recommended setting up a fire commissioner's office. One such recommendation advanced the further rationale that external funding from the provincial government is provided for in the *Fire Safety Act* and the *Charter of Ville de Montréal*<sup>6</sup> anticipates recovering certain amounts from the insurers who do business on its territory. According to the benefits outlined in the FSCP, setting up a Fire Commissioner's Office with the collaboration of the police, firefighters and the technical and scientific staff involved, would make it possible to implement fire prevention solutions. We are of the opinion that the implementation of such an office, on the eve of reviewing the FSCP, should be re-evaluated.

We also wonder if including the Fire Commissioner's Office for information purposes only was planned in the context of the current FSCP. In our opinion, if an action or measure is not really an integral part of the FSCP or that the latter does not provide for it, it should not be included in the FSCP to avoid any confusion among authorities.

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<sup>6</sup> RSQ, chapter C-11.4.

#### 3.2.1.1.6.B. Recommendation

We recommend that the Service de sécurité incendie de Montréal re-evaluate, at the time of reviewing the fire safety cover plan, the relevance of including the implementation of a Fire Commissioner's Office in order to strengthen fire prevention.

#### Business unit's response:

*[TRANSLATION] The SIM agrees to begin re-evaluating the feasibility of putting in place a Fire Commissioner's Office, taking into account common management principles, as well as the involvement of various partners (the SIM, the city, the SPVM, insurers, MSP). (Planned completion: December 2013)*

#### 3.2.1.1.6.C. Recommendation

We recommend that the Service de sécurité incendie de Montréal ensure that all actions and measures that will figure in the revised fire safety cover plan be realisable and provided for in the implementation plan in order to avoid entering them as being for information purposes only and thus creating confusion among authorities.

#### Business unit's response:

*[TRANSLATION] The SIM has noted the recommendation. (Planned completion: December 2013)*

### 3.2.1.2. Response Component – Strike Force

#### 3.2.1.2.A. Background and Findings

Completion of the implementation plan for the response component – strike force is, on the one hand, dependent upon the available budget of the TCEP and, on the other hand, on the planned construction or refurbishment of the fire stations. As regards the plan that was tabled, we concluded the following.

- The relocation of fire station 63 is no longer necessary because of the changes brought about in the Highway 20 interchange in Dorval. The current fire station will remain at the same location and is being refurbished. Completion of the refurbishment work is planned for March 2014.

- Construction of fire station 59, planned for 2010, will instead be completed in 2013. Fire station 32 will be delivered as planned in 2013.
- Construction of the West Island training centre, initially planned for 2012, is in jeopardy since it does not appear in the recently tabled 2013–2015 TCEP.

Based on the information received, the absence of the West Island training centre would not jeopardize the training activities of the SIM's firefighters, since training will continue to be held in the East End training centre. However, this decision carries with it additional costs related to transportation, maintenance and travel to the East End training centre by West Island response units.

Although the SIM indicated that, when the FSCP was being developed, initial cost estimates for the training centre were in the order of \$6,061,000 and that these were revised upward to \$9,850,000 in 2012, SIM management did not provide analyses or studies to support the project as initially planned.

- The refurbishment of fire stations 56 and 65 was completed as planned in 2010.
- The refurbishment of fire station 51, planned for 2012, is under way with likely delivery in 2013. In the case of the refurbishment of fire station 67, planned for 2010, a provisional (partial) receipt was accepted by the DSTI in December 2011.
- Refurbishment of the offices was completed and proved to be less costly than predicted. The SIM decided to occupy and refurbish a building (at 200, rue de Bellechasse) that belonged to the city. Moreover, slight refurbishing was done in the region.
- To support strike force and prevention activities, SIM management planned to acquire 15 light vehicles for prevention and nine heavy vehicles for response. Based on the information collected at October 22, 2012, all the light vehicles and eight of the heavy vehicles had been received. A heavy vehicle assigned to fire station 59 and planned for 2013 should be delivered in 2014.

Comparison between the initial cost estimates and the cost estimates at October 16, 2012, show a cost overrun of \$8,360,000 compared with initially planned costs of \$30,370,000, as shown in Table 8. These overruns are reflected as much in fire station construction as in refurbishment projects. After eliminating the work on fire station 63 and the refurbishment of the prevention offices, which was no longer required as initially planned, we concluded that all the other projects, once completed, would incur cost overruns totalling \$13,342,000.

**Table 8 – Response Component – Strike Force**  
**Initial Budget Estimates Compared with 2012 Revised Estimates**  
*(in thousands of dollars)*

	Estimates 2008	2009 real	2010 real	2011 real	2012 projection	2013 projection	Total	Variance (total - planned)
<b>Construction</b>								
Fire station 32	5,046		823	16	664	5,972	<b>7,475</b>	2,429
Fire station 59	4,857			47	1,303	6,216	<b>7,566</b>	2,709
Fire station 63	4,947				240	2,435	<b>2,675</b>	(2,272)
West Island training centre	6,061						<b>9,850</b>	3,789
<b>Refurbishment</b>								
Fire station 51	796			89	1,000	1,068	<b>2,157</b>	1,361
Fire station 56	316	24	642	9			<b>675</b>	359
Fire station 65	204	67	411		27		<b>505</b>	301
Fire station 67	750	57	388	2,371	307		<b>3,123</b>	2,373
<b>Refurbishment of offices – prevention</b>	2,930	180		40			<b>220</b>	(2,710)
<b>Acquisition of vehicles</b>	4,463		918	1,632	895	1,039	<b>4,484</b>	21
<b>Total</b>	<b>30,370</b>	<b>328</b>	<b>3,182</b>	<b>4,204</b>	<b>4,436</b>	<b>16,730</b>	<b>38,730</b>	<b>8,360</b>

Source: SIM.

In the case of fire station construction projects, these cost overruns are mainly due to the use of cost estimates using a non-actualized reference dating from the construction of the most recent fire station (between 2002 and 2005). The cost overruns linked to the fire station refurbishment projects, on the other hand, are explained by the fact that constraints and requirements were not properly taken into consideration, for example constraints related to the fire stations themselves (old fire stations), urban planning by-law requirements of the boroughs and related municipalities, and the implementation of the new sustainable development policy.

This conclusion regarding cost overruns raises questions about the reliability of the cost estimates originally taken into account when the FSCP was developed. In our opinion, the SIM should have ensured that the cost estimates for each project were made using an actualized cost referential and should have taken into account constraints and requirements that were likely to change the costs. It would also have been necessary for the cost estimation to have been reliable and based on the costs of materials and labour in the current market in order for the projects to be completed within the planned completion dates and costs.

Now that the FSCP has already been approved by the MSP and that the projects have started (with the exception of the West Island training centre), we are of the opinion that

strict monitoring of costs should be done, not only in order to comply with the new estimates that were revised in 2012, but also to avoid jeopardizing the implementation of certain projects. Thus only \$7,714,000 was spent by the end of 2011, in the context of the implementation of the projects related to the response component – strike force. There remains, therefore, for 2012 and 2013, a total amount of \$21,166,000 to be put towards completion of these projects.

Upon approving the FSCP, the MSP issued a certificate of compliance with its directives. This was followed by the adoption of the FSCP by the urban agglomeration council and its implementation in accordance with the proposed implementation plan, which bestowed on the city (under an urban agglomeration power) immunity from future prosecution. By this very fact, the response component – strike force constitutes a key element of the FSCP and the measures initially planned for the latter must be completed. In the event that some projects cannot be completed as planned before the end of 2013, we are of the opinion that the SIM should notify the MSP to obtain authorization of the extension or abandonment.

#### 3.2.1.2.B. Recommendation

**We recommend that the Service de sécurité incendie de Montréal:**

- **Take the necessary steps to comply with the completion dates for construction of fire stations 32 and 59, as well as for the refurbishing of fire station 51 now planned for 2013;**
  - **Examine with the Direction générale and the Service des finances all possible solutions for funding the construction of the West Island training centre;**
- so that the response component – strike force of the implementation plan of the Fire Safety Cover Plan is completed as scheduled.**

#### **Business unit's response:**

*[TRANSLATION] Contracts were awarded for fire stations 32, 51 and 59. Implement strict administrative management of these contracts to ensure that all contractual parties act with diligence. (Completed, January 2013)*

*Implement specific measures to ensure the delivery of fire station 32 in December 2013 and of fire station 59 in September 2013. (Planned completion: fire station 32, December 2013; fire station 59, September 2013)*

*Implement of strict monitoring mechanisms at the worksites of fire stations 51 and 59 by professional consultants. (Completed, March 2013)*

*Hold regular monthly statutory meetings with the DSTI and the SIM to ensure project follow-up. (Completed, January 2013)*

*Funding needs for the construction of the West Island training centre to be presented to city manager. (Completed, February 2013)*

#### 3.2.1.2.C. Recommendation

We recommend that the Service de sécurité incendie de Montréal obtain the approval of the Ministère de la Sécurité publique if construction of the West Island training centre cannot be completed as planned in the implementation plan of the Fire Safety Cover Plan, so as to comply with the *Fire Safety Act*.

#### Business unit's response:

*[TRANSLATION] Official link to the MSP. Letter explaining the reasons and rationale for the change, if necessary.*

*2012 report submitted in March 2013 through the official GDD, in the form of documents showing the level of progress. (Completed, March 2013)*

#### 3.2.1.2.D. Recommendation

We recommend that the Service de sécurité incendie de Montréal obtain the approval of the Ministère de la Sécurité publique for delaying the timeframe for acquiring a heavy vehicle for fire station 59, initially planned for 2013, and delaying the timeframe for completing the work on refurbishing fire station 63, initially planned for 2012, in order to comply with the *Fire Safety Act* regarding the fire safety cover plan.

#### Business unit's response:

*[TRANSLATION] Letter to the MSP. (Completed, March 2013)*

#### 3.2.1.2.E. Recommendation

We recommend that the Service de sécurité incendie de Montréal implement stringent cost monitoring in order to complete construction of the infrastructure planned in the fire safety cover plan within the limits of the new cost estimates.

#### Business unit's response:

*[TRANSLATION] Put in place strict worksite monitoring mechanisms by professional consultants. (Completed, March 2013)*

#### 3.2.1.2.F. Recommendation

We recommend that the **Service de sécurité incendie de Montréal** take all necessary steps, when including other fire station construction or refurbishment projects undertaken as part of an amendment or revision to the fire safety cover plan, to ensure that these projects are well defined and are based on cost estimates that represent true market value to be able to complete them based on planned completion dates and costs.

#### Business unit's response:

*[TRANSLATION] Provide for a planning period in order to conduct feasibility studies. A model technical functional program for a fire station and access to building audits will make it possible to complete feasibility studies. Use professional services in construction savings beginning with the project plan up to the end of the construction worksite. (Completed, January 2013)*

### 3.2.1.3. Water Supply Component

#### 3.2.1.3.A. Background and Findings

At the time the FSCP was being developed, projects had been defined to solve a problem of water supply for the western part of the island when firefighters were fighting a fire. This involved the construction of underground reservoirs equipped with dry hydrants and the inclusion of water supply points within the construction of new water mains. According to the SIM, these projects should have been completed between 2010 and 2013. However, no feasibility study or cost estimate was done by the SIM for these projects before being included in the FSCP. Following adoption of the FSCP by the MSP and by the urban agglomeration council, the planned projects were submitted to Service de l'eau. Once summary analyses were completed (technical drawings of the reservoirs, analyses of the location and soil condition, and analyses regarding adding pumps so that fire trucks could be supplied with water from the reservoirs), the Service de l'eau mentioned to the SIM that these projects presented technical constraints that required major investments, for example, the city's acquisition of land (under an urban agglomeration power) and the obtaining of public easements for the locations where the underground water reservoirs were to be installed. In 2009, the SIM had to postpone completion of these projects. At the time of our audit, the Service de l'eau was unable to provide cost estimates in support of the postponed projects.

The SIM redirected its efforts, therefore, towards a less costly solution, the implementation of 11 reserved fire hydrants to serve the western part of the island. As of October 30, 2012,

ten reserved fire hydrants had been installed at a total cost of \$38,000. The installation of an eleventh hydrant is currently the subject of litigation with the contractor that was awarded the contract.

In our opinion, this constitutes a major amendment of the FSCP regarding the supply of water in the event of a fire, and the SIM must ensure that the procedure set out under the *Fire Safety Act* is followed. This procedure requires that amendments to the FSCP be approved by the urban agglomeration council and by the MSP. Furthermore, we are of the opinion that the SIM must also ensure that it demonstrate to the Ministre de la Sécurité publique that the installation of reserved hydrants, a solution that replaced the projects initially planned in the FSCP, meets the objectives of supplying water in the event of a fire.

### 3.2.1.3.B. Recommendation

**We recommend that the Service de sécurité incendie de Montréal:**

- A) Ensure that all projects included in the fire safety cover plan at the time of an amendment or revision of said plan are based on feasibility studies and proper costing in order to justify the choices retained and to predict the sums that will be needed in the three-year capital expenditures program based on the planned completion date;**
- B) Formally submit to the Ministre de la Sécurité publique amendments to the fire safety cover plan regarding the supply of water in the event of a fire, demonstrating that the replacement of projects initially proposed meets the same objectives that enabled the city (under an urban agglomeration power) to obtain a certificate of compliance for the fire safety cover plan so as to comply with the provisions of the *Fire Safety Act*;**
- C) Ensure that all necessary measures are taken to complete the project involving the supply of water in the event of a fire so that the objectives in this matter, which enabled the city (under an urban agglomeration power) to obtain a certificate of compliance for the fire safety cover plan, are achieved as planned.**

#### **Business unit's response:**

- A) *[TRANSLATION] The implementation of a selection and evaluation process, combined with a cost analysis, will ensure a solution that is attainable. The tools to be used are:*
  - *Participation of the Division de la planification stratégique and of other concerned divisions;*
  - *Implementation of a methodology and evaluation grid; and*
  - *Completion of feasibility studies, and a simulation exercise, if necessary. (Completed, March 2013)*

- B) Official link to the MSP, letter explaining the reasons and rationale for the change in approach in the area of water supply. **(Completed, March 2013)**
- C) Good project management practices, combined with regular scheduled meetings periodically with partners (boroughs, related municipalities, public works, Service de l'eau), will ensure compliance with completion plans.
- Completion dates;
  - Change requests;
  - Follow-up;
  - Documentation.

Minutes of regularly scheduled meetings. **(Completed, March 2013)**

Implement an action plan to obtain the certificate of compliance for the fire safety cover plan. **(Planned completion: December 2013)**

The fire hydrant on the corner of chemin North Ridge and montée de l'Église in Île-Bizard was installed on December 6, 2012. Testing was done on December 11 and 12. **(Completed, December 2012)**

## 3.2.2. Project Management

### 3.2.2.A. Background and Findings

In addition to the SIM's human resources, completion of the implementation required drawing on the services of internal partners of the city:

- the STI for the development of the SGIAP;
- the DSTI for the construction and refurbishing of fire stations and the West Island training centre; and
- The Service de l'eau for the construction of the water supply infrastructure.

In order to meet the planned completion date of the FSCP and to monitor the completion of various projects, SIM management prepared a detailed annual plan for all work based on a schedule that required coordination and follow-up using project management methods and tools.

To ensure implementation of the FSCP by the planned completion date, SIM management put in place a coordination structure in 2009, comprised of:

- a steering committee;
- a project office;
- an administrative respondent;
- a project head;
- a project manager;

- administrative support;
- a person responsible for each of the programs.

The staff assigned to this structure comes exclusively from the SIM. However, other business units of the city are involved in completing the implementation of the FSCP: the STI (development of the SGIAP), the Service de l'eau (water supply) and the DSTI (refurbishing and construction of fire stations). In the case of these business units, we noted the absence of designated representatives from the start in the implementation structure of the FSCP.

While SIM management had designated a person from their department for each planned outcome or product to be delivered within each of the components and had put in place working tables, in our opinion these actions were not adequate given the delays in the construction and refurbishment of the fire stations, as well as in the delivery of the SGIAP, added to the fact that the scope of the water supply projects was not the same as at the beginning.

In our opinion, operating in this manner is problematic for the coordination and monitoring of the completion of projects that fall under other business units that are assisting the SIM in its role as coordinating manager, such as the DSTI, the STI and the Service de l'eau.

This indicates that the project management and monitoring mechanisms had flaws. The absence of representatives from the business units at the time of follow-up meetings with SIM management or with the steering committee is a major one.

In our opinion, with regard to the FSCP, the heads of each of the components in the business units should have been integrated into the implementation structure in the same way as SIM managers. Provision should have been made for project dockets setting out the responsibilities, expected outcomes and completion dates of each of the stakeholders (the SIM, the STI, the DSTI, and others). The SIM, as the department in charge of the FSCP, should have reached agreements with its partners at the city.

#### **3.2.2.B. Recommendation**

**We recommend that the Service de sécurité incendie de Montréal, where completion of the projects anticipated in the fire safety cover plan requires the involvement of other business units of the city, integrate, as soon as possible, the heads of each of these units into the project coordination mechanisms so as to have complete information, in a timely manner, and to be able to meet planned completion dates.**

**Business unit's response:**

*[TRANSLATION] Good project management practices, combined with planning, needs assessment and partner meetings, will ensure that communications with partners are compliant. (Completed, March 2013)*

### 3.2.3. Implementation Costs

#### 3.2.3.A. Background and Findings

In terms of the full implementation of the FSCP, as adopted by the urban agglomeration council, according to the budget data presented in Table 9, the total operating cost was \$49,127,900, or \$10,120,100 less than anticipated in the 2008 estimates (\$59,248,000).

**Table 9 – Discrepancies Between FSCP Implementation Costs and Total Investment as of October 16, 2012**  
*(in thousands of dollars)*

	2009	2010	2011	2012 <sup>a</sup>	2013 <sup>a</sup>	Total
<b>Operating budget<sup>b</sup></b>						
Response – anticipated	1,452.1	2,912.2	5,849.2	8,352.6	10,519.7	29,085.8
Response – real	484.0	2,841.0	5,709.0	6,604.6	8,703.5	24,342.1
Variance (real - anticipated)	(968.1)	(71.2)	(140.2)	(1,748.0)	(1,816.2)	(4,743.7)
Prevention – anticipated	3,146.5	4,201.5	6,022.2	8,276.3	8,515.7	30,162.2
Prevention – real	2,216.0	2,861.0	4,245.9	7,164.5	8,298.4	24,785.8
Variance (real - anticipated)	(930.5)	(1,340.5)	(1,776.3)	(1,111.8)	(217.3)	(5,376.4)
Total – anticipated	4,598.6	7,113.7	11,871.4	16,628.9	19,035.4	59,248.0
Total – real	2,700.0	5,702.0	9,954.9	13,769.1	17,001.9	49,127.9
Variance (real - anticipated)	(1,898.6)	(1,411.7)	(1,916.5)	(2,859.8)	(2,033.5)	(10,120.1)
<b>TCEP (of the SIM)</b>						
Anticipated in 2008						30,370
Revised in 2012	328	3,182	4,204	4,436	16,730	28,880
West Island training centre (CFO)						9,850
Total including the CFO						38,730
Variance (total - anticipated)						8,360
<b>Other related costs</b>						
SGIAP (TCEP of the STI)						4,176
Water supply – reserved fire hydrants (TCEP of the Service de l'eau)						38
Total						4,214
<b>Total investment including related costs</b>						<b>42,944</b>

<sup>a</sup> Real costs represent projected costs to December 31 of the year in question.

<sup>b</sup> Debt servicing not included (interest to pay down the debt).

This reduction in operating expenses is due mainly to delays in the construction and refurbishing of the fire stations, completion of the West Island training centre and delivery of the SGIAP. This is reflected in:

- Postponing the firefighter recruitment initially planned for the start of 2009 and of 2012. In fact, of the 20 firefighters to be recruited in 2009, seven firefighters were recruited that year and the other 13 were only recruited in 2011. The SIM planned to recruit 24 firefighters in 2012; however, none were recruited that year (\$2,457,100).
- The postponement to 2014 of the recruitment of 36 firefighters initially planned for 2013 (\$1,286,900).
- The downward revision of the total salaries of prevention resources in relation to estimates (\$2,492,800).
- Revision of contingency costs (\$2,005,300), which proved to be lower than expected, mainly because of the postponement of the delivery of fire stations.
- Downward revision of the smoke detector and summer brigade program (\$730,000).
- Carry over of operating costs related to the West Island training centre (\$648,000).
- Downward revision of the subsidy program put in place by the SIM to facilitate the implementation of standards for seniors' residences (\$500,000).

Regarding the TCEP, the total cost should reach \$38,730,000 by the end of 2013, or \$8,360,000 more than the initial estimate of \$30,370,000. On this matter, the results of our inquiries regarding the rigour with which the estimates were made at the time of the design of the FSCP and our recommendations regarding the reliability of the cost estimates appear in section 3.2.1.2 of this audit report.

Finally, the total cost of implementation presented by the SIM at the time of adoption of the FSCP took into account the operating budget and the TCEP for the years 2009–2013. During our audit, we concluded that the costs of the SGIAP project managed by the STI, as well as the water supply projects managed by the Service de l'eau, had not been included in the total cost of implementation. In our opinion, these costs are directly related to implementation of FSCP. Therefore, \$4,176,000 should be added for the development of the SGIAP and \$38,000 for the supply of water, for a total discrepancy of \$12,574,000.

### 3.2.3.B. Recommendation

**We recommend that the Service de sécurité incendie de Montréal include in the total cost of implementing the fire safety cover plan the cost of projects stemming from it, which are managed by other business units, so as to reflect the real cost to the agglomeration.**

**Business unit's response:**

*[TRANSLATION] Present the total cost of implementing the fire safety cover plan, including the cost of projects related to the plan that are managed by other business units, in order to reflect the real cost of the plan. (Completed, April 2013)*

### 3.2.4. Accountability Reporting

#### 3.2.4.A. Background and Findings

In order for the Direction générale and authorities to be informed about the progress of the FSCP project that was entrusted to SIM management, accountability mechanisms must be put in place. Management reports should be produced periodically and contain relevant information to enable the above to fully understand the degree of completion of the implementation plan. These reports should enable decision to be made in a timely manner.

Our audit looked into the mechanisms that were put in place in order to account for the progress of the implementation plan for the FSCP.

In order to meet requirements of the *Fire Safety Act*<sup>7</sup> regarding the FSCP, the SIM has produced two activity reports to date. The 2009–2010 activity report was tabled with the urban agglomeration council in March 2011, while the 2009–2011 activity report was tabled with the urban agglomeration council in March 2012. According to the documents we examined, these reports were sent to the *Ministre de la Sécurité publique*. They describe all the actions set out in the implementation plan of the FSCP based on their likely year of completion (2009–2013).

Moreover, the reports indicate the degree of completion for each action. A brief description is provided for the actions that were completed. Summary explanations are given for those actions that were completed ahead of schedule or whose completion was postponed to a later year.

In conclusion, SIM management produces activity reports for the *Ministre de la Sécurité publique* to comply with the *Fire Safety Act*, which provide information on the degree of completion of the work planned in the FSCP. However, upon reading the latest report produced, i.e. the 2009–2011 activity report, we were not able to retrace information

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<sup>7</sup> Section 35: “Every local or regional authority and every intermunicipal board in charge of the implementation of measures provided for in a fire safety cover plan must, within three months after the end of their fiscal year, adopt, by resolution, and transmit to the Minister a report of their fire safety activities for the preceding fiscal year and their fire safety projects for the coming year to their council.”

indicating that the complete delivery of the SGIAP will be delayed until 2014. We are of the opinion that the SIM should have informed the Ministre de la Sécurité publique of the postponement of the planned completion date of the SCIAP project since it involved information already known at the time of producing this report.

While SIM management sent the activity reports to the MSP, we are of the opinion that a formal accountability report on the progress of the implementation of the FSCP, which included more management information, should also have been completed for the Direction générale and authorities. In fact, for a project of the scope of that of the FSCP, whose implementation is spread over a period of five years, we are of the opinion that it is important that the Direction générale and authorities know the planned and real costs of the implementation plan, as well as its degree of progress. Furthermore, they should be informed periodically of problems encountered that could compromise the full implementation for the end of 2013, as approved by the urban agglomeration council and the MSP.

#### 3.2.4.B. Recommendation

**We recommend that the Service de sécurité incendie de Montréal produce periodically for the Direction générale and authorities accountability reports detailing the degree of progress, problems encountered and total costs of the plan to implement the fire safety cover plan, so that appropriate decisions may be made to comply with the planned completion date in 2013 or advise them of the consequences in the event that these completion dates are not met.**

#### Business unit's response:

*[TRANSLATION] The SIM agrees to produce an accountability report consisting of the three elements requested on a quarterly basis for the Direction générale and the authorities involved. (Planned completion: December 2013)*

#### Conclusion

Once the FSCP was approved by the Ministre de la Sécurité publique, it enabled the city (under an urban agglomeration power) to benefit from immunity from prosecution under section 47 of the *Fire Safety Act*, which states the following in the second paragraph:

*The exemption applies to the authority having established the service or having requested the person's response or assistance, except if the authority has failed to adopt a plan for the implementation of the fire safety cover plan as required or if the*

*measures or procedures provided for in the applicable implementation plan and relating to the acts in question were not implemented as established.*

As we presented earlier, our audit led us to conclude that several measures planned in the FSCP that was approved by the Ministre de la Sécurité publique, as well as for the prevention and response components, remain to be completed before the end of 2013, the final year of the implementation plan. It is true that the completion or accomplishment of some of them, in particular the refurbishment of fire station 32 and the acquisition of light and heavy vehicles, was already planned for 2013. However, other measures, such as the construction of fire station 59 and the refurbishment of fire station 51, were not completed in accordance with the initial completion schedule, in 2010, 2011 and 2012, and, therefore, needed to be postponed to 2013.

Moreover, the complete delivery of SGIAP is now planned for 2014, beyond the five-year period allotted by the Ministre de la Sécurité publique to implement the FSCP. Although planned for the FSCP, the delivery of the West Island training centre appears to be in jeopardy since it has not been officially postponed to a later year.

Consequently, in order to avoid future legal action that could raise questions about the exemption from responsibility (immunity) from which the city benefits (under an urban agglomeration power), we are of the opinion that all the necessary efforts must be deployed to complete the implementation of all the measures set out in the FSCP, between now and the end of 2013. In the event that the city (under an urban agglomeration power) is unable to meet the completion date, we are of the opinion that section 30.1, paragraph 1, of the *Fire Safety Act* would apply: “As an exceptional measure, following a request with reasons from a regional authority, the Minister may authorize the amendment of a fire safety cover plan in force in order to extend one or more deadlines contained in the plan.”

Moreover, a request to postpone the completion date should be sent formally to the Ministre de la Sécurité publique in the case of the SGIAP project to complete the refurbishing fire station 63 and the delivery of a heavy vehicle that was planned for fire station 59. The SIM should also notify the Ministre de la Sécurité publique of the fact that the West Island training centre will not be completed as planned in the FSCP.

## 4. Appendix

### 4.1. Implementation of the First Responder Service – Detailed Cost Estimates, 2007–2009

**Table A – Detailed Initial Cost Estimates  
for the Implementation and Start-Up Period of the FR Service**

	2007	2008	2009	Total
<b>Expenditures</b>				
<b>Implementation costs</b>				
No. of fire stations to be integrated	19	18	21	58
Communication	\$300,000	\$50,000	\$50,000	\$400,000
Certification of firefighters	\$2,522,300	\$2,047,300	\$2,923,100	\$7,492,700
Equipment	\$710,000	\$664,000	\$765,500	\$2,139,500
Administration	\$758,400	\$865,000	\$698,200	\$2,321,600
<b>Total</b>	<b>\$4,290,700</b>	<b>\$3,626,300</b>	<b>\$4,436,800</b>	<b>\$12,353,800</b>
<b>Operating expenses</b>				
No. of active fire stations – start of year	8			
No. of active fire stations – end of year	27	45	66	
Salary bonuses	\$1,118,900	\$2,991,000	\$4,562,300	\$8,672,200
Ongoing training	\$109,200	\$470,200	\$721,900	\$1,301,300
Equipment	\$254,700	\$954,400	\$1,662,700	\$2,871,800
Administration	\$1,018,300	\$1,065,800	\$1,442,200	\$3,526,300
<b>Total</b>	<b>\$2,501,100</b>	<b>\$5,481,400</b>	<b>\$8,389,100</b>	<b>\$16,371,600</b>
<b>Total expenditures</b>	<b>\$6,791,800</b>	<b>\$9,107,700</b>	<b>\$12,825,900</b>	<b>\$28,725,400</b>
<b>Revenues<sup>a</sup></b>				
Based on the memorandum of understanding	\$7,207,500	\$5,500,000	\$5,500,000	\$18,207,500
<b>Investments</b>				
Acquisition of vehicles	\$2,210,000	\$2,000,000	\$2,000,000	\$6,210,000

<sup>a</sup> Amounts that will be indexed annually based on the rate set by the Government of Québec.

Source: SIM.