

# 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, 2011





**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, 2011**

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According to the *Charter of the French Language* and the *Office québécois de la langue française*, municipalities shall designate all official names, such as boroughs, departments, paramunicipal corporations as well as municipal and associated bodies by their French names alone, even in the English version.

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May 10, 2012

Mr. Gérald Tremblay  
Mayor of the Ville de Montréal  
275 rue Notre-Dame Est  
Suite 1.113  
Montréal, QC H2Y 1C6

**Subject: Auditor general of the Ville de Montréal's annual report for the year ended  
December 31, 2011**

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Dear Mr. Mayor,

Please find enclosed the *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, 2011 as per section 107.13 of the *Cities and Towns Act* (R.S.Q., chapter C-19) to be tabled at the next regular city council meeting on May 14, 2012 and the next urban agglomeration council meeting on May 17, 2012.

Yours truly,



Jacques Bergeron, CA, MBA, M. Sc.  
Auditor general



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# I. Comments and Recommendations from the Auditor General



Vérificateur général  
de la Ville de Montréal



## **I. COMMENTS AND RECOMMENDATIONS FROM THE AUDITOR GENERAL**

As in past years, I am including comments and recommendations for the municipal administration in the introduction. I consider it appropriate this year to discuss the following subjects of interest:

- A. Monitoring authorities' distribution of contracts among contractors
- B. Auditor general's operating budget
- C. Processing the auditor general's decision-making records
- D. Recommendations from previous years

### **A. MONITORING AUTHORITIES' DISTRIBUTION OF CONTRACTS AMONG CONTRACTORS**

The use of public funds by the Ville de Montréal (the city) to carry out projects accounts for a significant portion of annual expenditures for designing, rehabilitating and replacing facilities and infrastructures. The largest share of the contracts was for projects included in the three-year capital expenditures program (TCEP); other contracts went to projects such as maintenance and repair of various city facilities and infrastructures.

In my 2009 Annual Report, I outlined the distribution of contracts awarded to contractors for the period from 2006 to 2009. At that time, I conducted a review using the city's databases and was able to identify 21 contracting firms that were awarded a large share of the contracts awarded by borough councils, the executive committee, city council and the urban agglomeration council (see Table 1). I conducted a detailed examination of the distribution of contracts awarded to these 21 firms by each of the 19 borough councils for that period. In view of the results, I then expressed my concern that some boroughs were awarding a large proportion of their contracts to the same 21 contracting firms, even though the contracts were granted to the lowest compliant bidders. I then recommended that the municipal administration continue initiatives toward improving management and control of the contracting process by the city's different administrative units.

To date, I have observed that the municipal administration has, in fact, gone to considerable efforts to revise its practices and tightening control:

- It has adopted the *Guide de conduite à l'égard des valeurs de l'organisation destiné aux employés de la Ville de Montréal* in April 2009 (revised in March 2011).
- Beginning in September 2009, it revised and completely updated the master documents for requests for qualification, calls for tenders and calls for proposals for all departments and boroughs (e.g. insertion of special provisions to prevent fraud and collusion).
- In September 2009, it adopted the *Code d'éthique et de conduite des membres du conseil de la Ville et des conseils d'arrondissement*.
- It set up an ethics hotline, under the supervision of the Bureau du vérificateur général from December 2009 to December 2010 and then transferred to the Service du contrôleur general, which was created in October 2010.
- In December 2009, it created the new Service des affaires juridiques et de l'évaluation foncière, which now reports directly to the Direction générale so that it can remain independent of other municipal departments.
- In April 2010, it adopted the *Cadre de gouvernance des projets et des programmes de gestion d'actifs municipaux* to provide municipal and paramunicipal stakeholders with a major tool for integrating best management practices in this sector.
- It created, in December 2010, the Commission permanente sur l'examen des contrats, which is mandated to ensure that contracts are compliant with the tendering process and to report this information to the appropriate authorities before contracts are awarded.
- In December 2010, it adopted the *Politique de gestion contractuelle de la Ville* (revised in April 2011), which provides measures to combat bid-rigging,<sup>1</sup> promote compliance with the *Lobbying Transparency and Ethics Act*, prevent acts of intimidation, influence peddling, corruption and conflict of interest, and manage decisions authorizing contract amendments.
- In October 2011, it adopted the city's new procurement policy, which is based on best management practices.

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<sup>1</sup> For example, if any bidder is found guilty in Québec of collusion, fraudulent acts or other similar offences during the five-year period preceding a call for tenders and submits a bid, its bid will be rejected and it will be prohibited from participating in any calls for tenders for five years, effective from the date of its bid. Further, if it was the successful bidder, its contract may be terminated.

At the same time, the following main legislative provisions came into force:

- On March 1, 2010, the *Act to amend various legislative provisions principally with regard to the awarding process for contracts made by municipal bodies*, which makes it mandatory to adopt a contract management policy, prohibits the disclosure, until the opening of bids, of any information that may be used to determine the number of persons or identity of the persons who have submitted a tender or requested a copy of the call for tenders or a document to which it refers, and requires the municipality to establish an estimate for any contract involving an expenditure of \$100,000 or more, prior to the opening of bids, if applicable, and to the conclusion of the contract.
- On June 11, 2010, the *Act to amend various legislative provisions respecting municipal affairs*, which requires municipal bodies to publish a list of concluded contracts involving expenditures of \$25,000 or more in the government-approved electronic tendering system and to use this system to sell their tender documents. It also prohibits operators of this system and their employees from disclosing the identities of parties requesting tender documents.
- On December 9, 2011, the *Act to prevent, combat and punish certain fraudulent practices in the construction industry and make other amendments to the Building Act*, which stipulates in particular that the licence of any contractor convicted of certain tax infractions in the previous five years will be restricted from obtaining a public contract.

Accordingly, as I announced in my 2009 Annual Report, in order to appreciate the extent controls introduced by the municipal administration helped reduce the concentration of contracts to the same contractors, I continued to review the distribution of contracts that authorities awarded to the 21 targeted contracting firms. However, since the municipal administration began to introduce measures in 2009, continued and even intensified this process in 2010, I excluded 2010 data from my review to focus more on 2011. Note that lists of contracts of all types awarded to these firms were compiled (e.g., work on road infrastructure, buildings, material supplies).

Table 1 shows a comparison of the distribution of contracts awarded to these 21 contracting firms, first for the 2006–2009 period, then for 2011.

**Table 1—Contracts Awarded by Authorities from 2006–2009  
Compared to 2011 (21 Targeted Firms)**

Contractor	2006–2009 (46 months <sup>1</sup> )			2011 (12 months)			
	Value of contracts awarded by borough councils	Value of contracts awarded by authorities (EC, CC, UAG <sup>2</sup> )	Total	Value of contracts awarded by borough councils	Value of contracts awarded by authorities (EC, CC, UAG)	Total	No. of contracts
1. Construction Frank Catania	–	\$104,645,073	\$104,645,073	–	–	–	0
2. Constructions Louisbourg	\$6,950,352	\$93,684,002	\$100,634,354	\$99,216	\$19,675,190	\$19,774,406	5
3. Entreprises Catcan	\$22,999,064	\$67,893,394	\$90,892,458	\$3,308,491	–	\$3,308,491	6
4. Construction DJL	\$10,110,621	\$60,982,498	\$71,093,119	\$1,864,303	\$9,875,018	\$11,739,321	16
5. Construction Garnier	\$16,808,806	\$51,405,569	\$68,214,375	–	\$3,085,555	\$3,085,555	3
6. Construction Soter	\$14,111,809	\$53,144,658	\$67,256,467	\$2,926,856	\$4,200,936	\$7,127,792	13
7. Construction Mivela	\$3,774,261	\$53,694,726	\$57,468,987	\$3,282,137	\$3,278,241	\$6,560,378	11
8. Constructions Infrabec	\$180,450	\$54,952,859	\$55,133,309	–	–	–	0
9. Simard-Beaudry Construction	\$7,771,127	\$43,619,893	\$51,391,020	\$4,773,585	\$27,223,051	\$31,996,636	21
10. Construction Pavage C.S.F.	\$11,701,837	\$33,581,300	\$45,283,137	\$3,541,835	\$5,431,545	\$8,973,380	10
11. Conex Construction Routière	\$375,479	\$38,911,032	\$39,286,511	–	–	–	0
12. B.P. Asphalte	\$10,559,277	\$25,264,083	\$35,823,360	\$2,129,090	\$2,810,314	\$4,939,404	6
13. Excavations Super	\$7,855,225	\$25,533,129	\$33,388,354	\$4,982,819	\$8,964,349	\$13,947,168	9
14. Constructions and Pavage Jeskar	\$14,154,669	\$11,978,771	\$26,133,440	\$1,658,786	\$4,829,207	\$6,487,993	7
15. Sintra	\$6,607,900	\$18,720,639	\$25,328,539	–	–	–	0
16. Roxboro Excavation	\$4,338,792	\$20,778,161	\$25,116,953	\$906,353	–	\$906,353	2
17. Pavages A.T.G.	\$5,707,966	\$16,843,953	\$22,551,919	\$2,448,281	\$469,741	\$2,918,022	5
18. SQUAREHAB	–	\$21,700,655	\$21,700,655	\$81,096	\$5,173,644	\$5,254,740	5
19. Gastier M.P.	\$107,893	\$14,181,396	\$14,289,289	\$79,520	\$1,475,580	\$1,555,100	3
20. Entreprise de construction T.E.Q.	\$9,610,758	–	\$9,610,758	–	–	–	0
21. Ciments Lavallée	\$5,145,152	\$481,129	\$5,626,281	\$809,260	–	\$809,260	2
<b>Total</b>	<b>\$158,871,438</b>	<b>\$811,996,920</b>	<b>\$970,868,358</b>	<b>\$32,891,628</b>	<b>\$96,492,371</b>	<b>\$129,383,999</b>	<b>124</b>
	<b>19 firms</b>	<b>20 firms</b>		<b>15 firms</b>	<b>13 firms</b>		

<sup>1</sup> The period reviewed was three years (2006, 2007, 2008) and 10 months (in 2009), or 46 months or 3.83 years.

<sup>2</sup> EC: executive committee; CC: city council; UAG: urban agglomeration council.

A comparison of the value of contracts awarded to these 21 contracting firms in 2011 with the annual average for contracts awarded to them in the 2006–2009 period shows that their share of the contracts dropped considerably in 2011. In fact, in 2011, the value of contracts awarded to them by borough councils shrank by \$8.6 million (21%) while for authorities (EC, CC and UAG), the decrease was \$115.6 million (54%) (See Table 2).

**Table 2—Changes in the Value of Contracts Awarded to the 21 Targeted Firms (2011 Compared with the Annual Average from 2006 to 2009)**

	Value of contracts awarded by borough councils	Value of contracts awarded by authorities (EC, CC, UAG)	Total
<b>A = 2011</b>	\$32,891,628	\$96,492,371	\$129,383,999
<b>B = Annual average for 2006–2009</b>	\$41,480,793	\$212,009,640	\$253,490,433
<b>Change in monetary value (A – B)</b>	<b>(\$8,589,165)</b>	<b>(\$115,517,269)</b>	<b>(\$124,106,434)</b>
<b>Change in percentage</b>	<b>(21%)</b>	<b>(54%)</b>	<b>(49%)</b>

Moreover, at the time of the 2009 review, I noted that 19 of the 21 targeted firms obtained contracts awarded by borough councils, and 20 firms obtained contracts from other municipal authorities (EC, CC and UAG). In 2011, several of these 21 firms did not obtain any contracts. The number of firms that obtained contracts from borough councils is now 15 out of 21 (4 less than for 2006–2009), and for other municipal authorities the number is 13 out of 21 (7 less than for 2006–2009) (see Table 1). An inventory of all contracts awarded by boroughs in 2011 shows that no firm outside of the 21 initially targeted firms was awarded a large proportion of the contracts.

To substantiate this downward trend for contracting to the 21 firms, I also compiled data on changes in TCEP budget allocations for both the 2006–2009 period and 2011. As Table 3 shows, for 2011, the city’s TCEP budget totalled \$1.1 billion. Of this amount, a little more than \$1 billion, or 90% of the TCEP budget, was allocated to projects associated with asset classes targeted by our review of the contracting process (see categories 1 to 4 in Table 3):

- Road infrastructures (\$321.3 million)
- Environment and underground infrastructures (\$400.7 million)
- Parks, green spaces and playgrounds (\$106.4 million)
- Buildings (\$209.3 million)

**Table 3—Changes in the TCEP Budget  
for 2006–2009 and 2011  
(amounts shown in thousands of dollars)**

TCEP Budget					A	B	Change: B – A		
	2006	2007	2008	2009	Average TCEP for 2006– 2009	2011 TCEP	\$	%	
<b>Borough TCEP</b>	133,500.0	131,132.0	140,044.0	139,067.0	135,935.8	144,515.0	<b>8,579.2</b>	<b>6.31%</b>	
<b>Central department TCEP</b>	412,450.0	572,219.0	845,493.0	1,017,359.0	711,880.2	997,786.0	<b>285,905.8</b>	<b>40.16%</b>	
<b>Total</b>	<b>545,950.0</b>	<b>703,351.0</b>	<b>985,537.0</b>	<b>1,156,426.0</b>	<b>847,816.0</b>	<b>1,142,301.0</b>	<b>294,485.0</b>	<b>34.73%</b>	
<b>Breakdown of TCEP by asset class</b>									
1	Road infrastructure	253,516.0	299,192.0	421,681.0	394,466.0	342,213.8	321,273.0	(20,940.8)	(6.12%)
2	Environment and underground infrastructure	87,950.0	136,569.0	238,040.0	377,091.0	209,912.5	400,658.0	190,745.5	90.87%
3	Parks, green spaces and playgrounds	32,335.0	60,084.0	69,124.0	130,871.0	73,103.5	106,384.0	33,280.5	45.53%
4	Buildings	74,048.0	64,562.0	114,432.0	145,317.0	99,589.8	209,266.0	109,676.2	110.13%
5	Land	14,725.0	17,012.0	16,393.0	15,800.0	15,982.5	9,034.0	(6,948.5)	(43.48%)
6	Vehicles	28,371.0	37,965.0	35,436.0	33,355.0	33,781.7	29,247.0	(4,534.8)	(13.43%)
7	Office equipment and furniture	30,055.0	40,587.0	55,700.0	50,969.0	44,327.7	40,512.0	(3,815.7)	(8.61%)
8	Machines, tools and equipment	5,619.0	38,220.0	15,931.0	1,696.0	15,366.5	5,196.0	(10,170.5)	(66.19%)
9	Other assets	19,331.0	9,160.0	18,800.0	6,861.0	13,538.0	20,731.0	7,193.0	53.13%
<b>TCEP total</b>		<b>545 950.0</b>	<b>703 351.0</b>	<b>985 537.0</b>	<b>1 156 426.0</b>	<b>847 816.0</b>	<b>1 142 301.0</b>	<b>294 484.9</b>	<b>34.73%</b>
<b>Total for asset classes 1 to 4</b>		<b>447,849.0</b>	<b>560,407.0</b>	<b>843,277.0</b>	<b>1,047,745.0</b>	<b>724,819.6</b>	<b>1,037,581.0</b>	<b>312,761.4</b>	<b>43.15%</b>
<b>Percentage of asset class 1 to 4 TCEPs</b>		<b>82%</b>	<b>80%</b>	<b>86%</b>	<b>91%</b>	<b>85%</b>	<b>91%</b>		

Based on this information, I found that in 2011, borough and central department TCEP budgets were 6.31% and 40.16% higher, respectively, than the average annual TCEP budget for 2006–2009 (see Table 3, Change B – A). Nevertheless, Table 2 shows that contract values in 2011 for the 21 targeted contracting firms fell by 21% for borough councils and 54% for the other municipal authorities. Based on the assumption that the budget allocated to the TCEP is a reliable indicator of the value of contracts the city plans to award over the years, it can only be concluded that the corrective measures implemented by the municipal administration and provincial legislature appear to be producing results.

Just as I did in my 2009 Annual Report, I then examined in greater detail the distribution of contracts (broken down by number and monetary value) that borough councils awarded in 2011. The purpose of this was to draw comparisons with the situation in 2009. Table 4 shows the results of my review.

**Table 4—Contracts Awarded in 2011 by Borough Councils to the 21 Targeted Firms**

Borough	Value of contracts	Total number of contracts	Percentage of contracts awarded to the same contractors			
			Number	% (of number)	% (of value)	Contractor
1 Ahuntsic-Cartierville	\$1,386,872	2				*
2 Anjou	\$688,812	3				*
3 Côte-des-Neiges–Notre-Dame-de-Grâce	\$1,538,076	3				*
4 L'Île-Bizard–Sainte-Geneviève	\$410,789	–				*
5 Lachine	\$940,866	2				*
6 LaSalle	–	2				*
7 Le Sud-Ouest	\$1,517,577	3				*
8 Mercier-Hochelaga-Maisonneuve	\$3,068,792	5	2	40.00%	40.56%	Simard-Beaudry Construction
9 Montréal-Nord	\$2,010,031	4	2	50.00%	<b>65.91%</b>	<b>Construction Soter</b>
10 Outremont	\$817,536	2				*
11 Pierrefonds-Roxboro	\$988,835	3	2	66.67%	<b>91.66%</b>	<b>Roxboro Excavation</b>
12 Le Plateau-Mont-Royal	\$1,467,781	1				*
13 Rivière-des-Prairies–Pointe-aux-Trembles	\$1,122,570	3				*
14 Rosemont–La Petite-Patrie	\$1,814,815	3				*
15 Saint-Laurent	\$1,323,127	4	2	50.00%	<b>61.16%</b>	<b>Ciments Lavallée</b>
			2	50.00%	38.84%	Construction DJL
16 Saint-Léonard	\$2,244,500	6	2	33.33%	<b>72.14%</b>	<b>Simard-Beaudry Construction</b>
17 Verdun	\$6,611,354	11	6	54.55%	<b>50.04%</b>	<b>Entreprises Catcan</b>
18 Ville-Marie	\$1,246,234	3				*
19 Villeray–Saint-Michel–Parc-Extension	\$3,693,061	5	2	40.00%	13.72%	Construction DJL
<b>Total value of contracts awarded</b>	<b>\$32,891,628</b>	<b>65</b>				

\* No significant concentration.

At first glance, a trend toward better distribution of contracts awarded to the 21 contracting firms than was seen in the results presented in my 2009 Annual Report appears to be emerging in 2011. Indeed, in 2011, only 5 boroughs still showed a certain degree of concentration, compared to 11 for 2006–2009. In other words, I found that more than 50% of the value of contracts was going to the same firms in the same boroughs that were singled out in the last review (2006–2009).

In short, the results of this review lead me to believe that the series of measures adopted by the municipal administration and provincial legislature to improve management and control of the contracting process by the city's different administrative units tends to yield positive results. However, in order to minimize the risks of derogations, I would encourage the municipal administration to remain proactive in introducing the appropriate monitoring mechanisms that will be required in order to ensure that all business units implement the measures planned.

I also believe it will necessary to obtain results for more than one year in order to be able to compare them so that it will then be possible to confirm the trends observed for 2011 with greater certainty.

Because some of these measures are relatively recent and it is reasonable to believe that a longer period of time might be required before the beneficial effects of some of them are felt, I plan to continue and review the situation again with results for the years 2012, 2013 and 2014.

### **B. AUDITOR GENERAL'S OPERATING BUDGET**

In my last two reports, I touched on an imbalance between my budget allocation and my obligations under the *Cities and Towns Act* (CTA). I stressed that the requirement of auditing the city's accounts and business affairs also extended to the other municipal bodies under its control. Auditing business affairs and accounts is an important, meaningful concept, because it involves several important responsibilities that are assigned to me under section 107.8 of the CTA:

*“The audit of the affairs and accounts of the municipality and of any legal person referred to in paragraph 2 of section 107.7 comprises, to the extent considered appropriate by the chief auditor, financial auditing, auditing for compliance of their operations with the Acts, regulations, policies and directives, and auditing for value-for-money.”*

As I explained in these reports, according to the CTA provisions at the time, the scope of my mandate extended to auditing financial statements, value-for-money and legal compliance for the Ville de Montréal as well as the following municipal bodies:

- Anjou 80
- Commission des services électriques de Montréal
- Conseil des arts de Montréal
- Conseil interculturel de Montréal
- Corporation d'habitation Jeanne-Mance
- Office de consultation publique de Montréal
- Office municipal d'habitation de Montréal (OMHM)
- Société de gestion Marie-Victorin
- Société de gestion NauBerges de Lachine
- Société de transport de Montréal (STM)
- Société d'habitation et de développement de Montréal (SHDM)
- Société du parc Jean-Drapeau

Nevertheless, I am not given the budget I need to audit these bodies, even though my office, the Bureau du vérificateur général, already audits their financial statements (accounting firms<sup>2</sup> do most of the audit work for the STM and the OMHM). This situation forces me to dig deep into my budget and cut back on resources that would otherwise be allocated to conducting the city's more value-added value-for-money audit. Furthermore, since my office does not have the necessary financial resources, it conducts practically no audits of this type for these bodies.

Consequently, last year I recommended to city council that my budget should be calculated based on both the city's operating budget and the budgets of bodies whose accounts and

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<sup>2</sup> The fees of the firm in question are currently paid directly by the bodies concerned.

affairs I am responsible for auditing. I understand that to date, city council has not decided on any follow-up action to my recommendation.

Moreover, the problem of my budget calculation worsened in 2011. Section 107.7 of the CTA used to read as follows:

*“The chief auditor shall audit the accounts and affairs  
(1) of the municipality;  
(2) of every legal person in respect of which the municipality or a mandatory of the municipality holds more than 50% of the outstanding shares or voting shares or appoints more than 50% of the members of the board of directors.”*

But the amendment to section 107.7, in force since January 1, 2011, broadens the auditor general’s mandate by introducing the additional requirement of auditing any legal person that is within the accounting scope defined in the municipality’s financial statements.

Consequently, I now have the responsibility of auditing the accounts and affairs of the following bodies:

- Bixi Toronto Inc.
- Fiducie du Technoparc Montréal
- Société de jalonnement dynamique de Montréal
- Société de vélo en libre-service
- Société en commandite Stationnement de Montréal
- Technoparc Montréal

Because of the significant impact this amendment to the CTA had on my office’s ability to discharge its responsibilities, and because of the urgency of the situation, the manager of the city’s Service des finances held discussions with its audit committee and representatives of these bodies. It was then agreed that for fiscal 2011, the bodies in question would pay the fees for their financial statement audit directly.

Nevertheless, to consolidate these different audit mandates, and possibly reduce costs, the senior manager of the Service des finances proposed that from that point forward I enter those fees in my budget, and that both the audit committee and city council decide on

appropriate funding for these additional responsibilities. He also recommended that I adopt the same approach when I process the fees for the OMHM financial statements.

Clearly, it is impossible to take this course of action without increasing my current budget accordingly. I estimate the total amount of these fees to be \$350,000.

Furthermore, a comprehensive review of the bodies that must be included in the scope of the auditor general's responsibilities I conducted with my joint auditor leads me to conclude that nine local development centres (CLD) are within the perimeter of my audit under paragraph 2b) of section 107.7 of the CTA, cited above. The fees for the financial statement audit of these bodies add up to roughly \$75,000.

Accordingly, my responsibilities vis-à-vis the financial statement audit of these bodies alone require that my operating budget be increased by at least \$425,000. This increase does not cover the value-for-money and regulatory compliance audits of these bodies. I would like to reiterate a recommendation I made last year.

### **Recommendations**

**I reiterate my recommendation that city council adopt a motion to ensure that the budget allocated to me is calculated on the basis of the city's operating budget as well as the budgets of all the bodies whose accounts and affairs I am now responsible for auditing.**

**Failing that, I recommend that city council adopt a motion to raise my 2013 budget by \$425,000, subject to subsequent indexing, so that I can at the very least fulfil my obligations for auditing the financial statements of the aforementioned bodies.**

## **C. PROCESSING THE AUDITOR GENERAL'S DECISION-MAKING RECORDS**

In October 2003, the manager of the city's Affaires juridiques informed the city manager that the internal by-laws of the executive committee covering delegation of power did not apply to the auditor general. In particular, she cited CTA sections 107.1 to 107.16 concerning the

auditor general, which were introduced in December 2001 and are part of a legislative package designed to grant the auditor general all the administrative autonomy he needs to discharge his duties adequately. On this subject, she added:

*[TRANSLATION] “We believe that, according to the spirit of these provisions and the letter of some of them, the auditor general should not be considered, for the purposes of delegating powers, in the same way as any other city official. . . .*

*In our opinion, by granting the minimum budget allocation to the auditor and making him responsible for implementing the city’s standards and policies regarding human, material and financial resource management, the legislature gave him such a high level of administrative autonomy that he is the only person responsible for using the budgets placed at his disposal.”*

Moreover, in a notice sent to the auditor general regarding human resources management of the Bureau du vérificateur général, in June 2004, the manager of the Affaires juridiques reasserted her position: *[TRANSLATION] “The autonomy granted the auditor general by law is incompatible with monitoring the appropriateness of his decisions. The auditor general therefore has the authority to make all decisions concerning the management of human resources assigned to the audit.”*

As a result of these legal notices, a special section was created in the decision-making record management system (GDD) to provide the auditor general with a tool to record his decisions since he is not subject to executive committee internal management by-laws on delegating powers.

Occasionally, circumstances make it necessary for me to obtain a city council decision. To obtain a decision from council regarding the Bureau du vérificateur général, like the city’s other administrative units, involves preparing a decision-making record in advance, adding it to the agenda in advance and, if necessary, having it ratified by resolution in advance.

For the reasons set forth above, I believe that no preliminary relevance check should be done on files that I want to submit to city council for decisions. Otherwise, the auditor general’s autonomy under the provisions of the CTA would be severely hampered.

As a follow-up to the recommendation<sup>3</sup> I made in my report last year concerning the allocation of surpluses in my operating budget, I prepared a decision-making record in 2011 for city council; the Direction générale refused to submit it to city council even though I tried many times to resolve this impasse.

In my opinion, the Direction générale's refusal infringes on my autonomy as auditor general, and I strongly object to this. I do not think it is useful to explain here once again all the intricate details of this file, which are described in decision-making record No. 1114209003.

I am therefore seeking the intervention of city council to ensure that this file is submitted to it for decision, and that in future I can submit to it any file I consider appropriate without any preliminary relevance check being performed.

### Recommendations

**I recommend that city council take the necessary steps to:**

- **Submit decision-making record No. 1114209003 on the allocation of surpluses in the auditor general's operating budget for a decision as promptly as possible.**
- **Allow the auditor general to submit for decision any file he considers appropriate without any preliminary relevance check.**

## D. RECOMMENDATIONS FROM PREVIOUS YEARS

As a result of the findings when my office followed up on recommendations made in past years (section V.1), I want to bring to the municipal administration's attention two situations that I consider of concern.

First, by the end of my offices' monitoring process, some business units concerned did not implement recommendations made from 2005 to 2009. Second, no action was taken by the business units concerned as a result of other recommendations made in 2009 and 2010 even though action plans were initially sent to us.

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<sup>3</sup> *"I recommend that city council take the necessary measures to allocate the surplus from the auditor general's 2010 operating budget to his 2011 operating budget, and that it do so for subsequent years, where applicable."*

For these two situations, I seek the support of the municipal administration to help ensure that the business units concerned implement these recommendations. Since most of these recommendations are major, I believe that their implementation could lead to substantial improvements in the management of the city's activities.

## II. Overview of the Bureau du Vérificateur Général



Vérificateur général  
de la Ville de Montréal



# II.1. Workforce Status



**Vérificateur général**  
de la Ville de Montréal



## II. OVERVIEW OF THE BUREAU DU VÉRIFICATEUR GÉNÉRAL

### II.1. WORKFORCE STATUS

Over the past few years, we have witnessed a continuous and very worrisome erosion of staff in the Bureau du vérificateur général (BVG) because of retirement and recruiting difficulties, especially with salaries that are not very competitive in our comparison market.

**Table 1—Workforce Trends  
as of December 31 for 2002–2011**

<b>Year</b>	<b>Total employees*</b>
<b>2002</b>	<b>41</b>
<b>2003</b>	<b>36</b>
<b>2004</b>	<b>38</b>
<b>2005</b>	<b>37</b>
<b>2006</b>	<b>35</b>
<b>2007</b>	<b>33</b>
<b>2008</b>	<b>28</b>
<b>2009</b>	<b>26</b>
<b>2010</b>	<b>30</b>
<b>2011</b>	<b>33</b>

\* The workforce excludes two audit professionals who were released full-time for union activities for the years 2008 to 2010 and one professional for 2011.

Measures taken to remedy this problem have included creating professional positions in the beginning of 2010 in a salary range superior to the existing one.

After a first recruitment campaign in June 2010, the BVG succeeded in filling five of the nine positions that were vacant at that time. A second recruitment campaign in November 2010 filled the remaining positions, resulting in a BVG with 35 staff members at the beginning of 2011. During that same year, two of the new resources hired left the BVG. As this report goes to press, another of these new resources has left the BVG, while two employees are on the verge of retiring and a third is likely to do so in 2012.

Attracting and retaining qualified and experienced resources remains a major challenge for the BVG.

# II.2. Performance Indicators



**Vérificateur général**  
de la Ville de Montréal



## II.2. PERFORMANCE INDICATORS

During our audits, we often observe a lack of appropriate performance indicators to allow thorough administrative follow-up and suitable reporting.

We think we should continue to present the indicators that appear most relevant for the reader to form an opinion about the performance of the Montréal Bureau du vérificateur général (BVG).

These indicators are:

- A. Number of reports issued
- B. Recommendation implementation rate
- C. Utilization
- D. Equal access to employment
- E. Financial results

### A. NUMBER OF REPORTS ISSUED

**Table 1—Number of Reports Issued from 2007 to 2011**

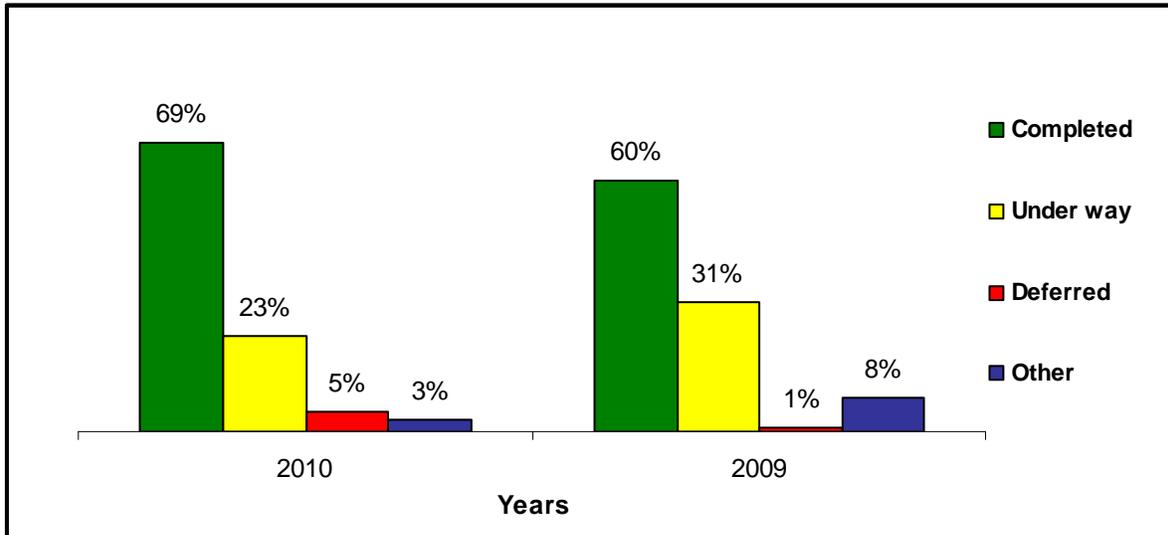
Reference year	Financial audit			Value-for-money and IT <sup>1</sup> audit
	Total	Current year	Previous year	
2007	15	10	5	10
2008	17	12	5	8
2009	13	11	2	7
2010	16	13	3	9
2011	10	9	1	12

<sup>1</sup> Information technology.

The increase in the number of reports produced in 2011 for value-for-money and IT audits stems from an increase in the BVG's working capacity due to the filled positions we mentioned earlier. There are fewer reports relating to financial audits because the auditor general's reports on certification of the Ville de Montréal and the Société de transport de Montréal (STM) financial statements had not been issued as this report went to press. Audit of the financial statements was not completed because of the late appointment of the joint auditors by the authorities.

## B. RECOMMENDATION IMPLEMENTATION RATE

Graph 1—Recommendations Implementation Rate  
from Value-for-Money and IT Audit

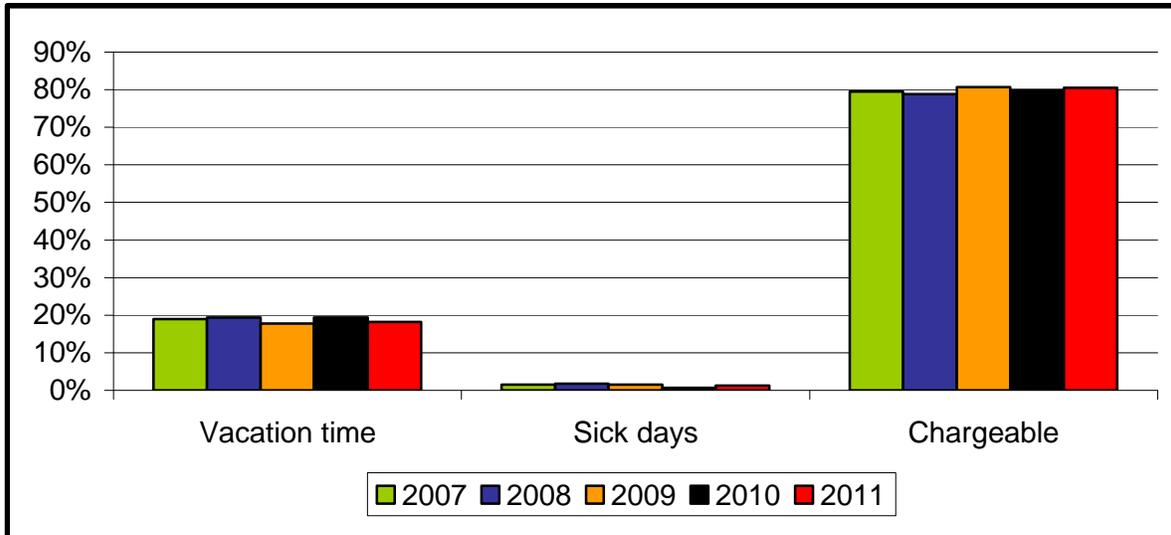


This indicator is particularly important because it allows the reader to assess how quickly and to what extent the administration takes appropriate measures to resolve the problems that trigger our recommendations. It should be pointed out that the figures shown in Graph 1 illustrate, for each of the years in which the recommendations were made, their implementation rate in the year following their publication.

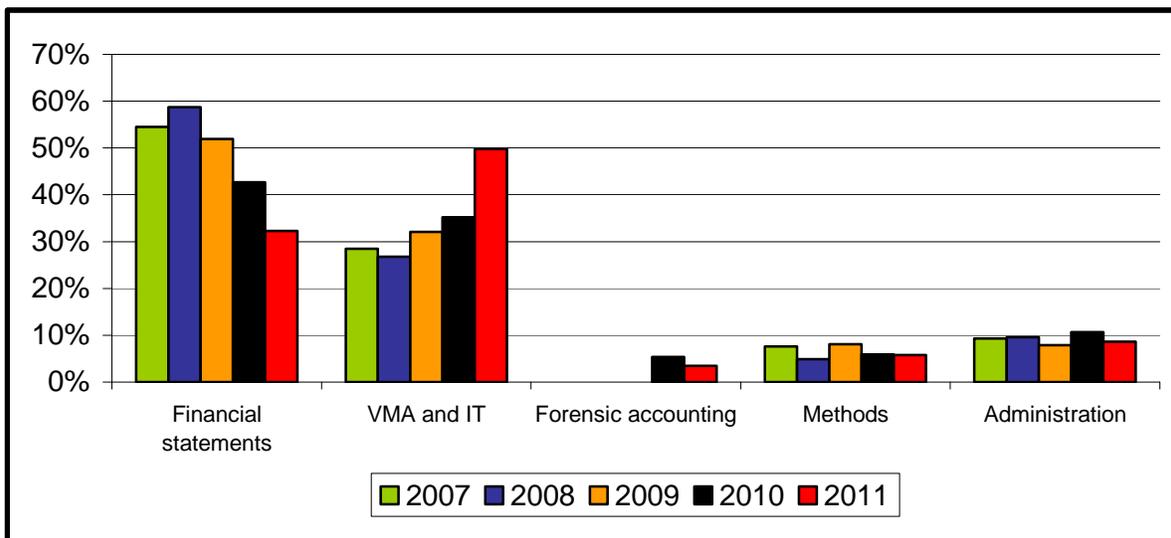
Overall, the indicator shows a satisfactory performance on the part of the business units with regard to the implementation of our recommendations.

C. UTILIZATION

Graph 2—Breakdown of Total Hours



Graph 3—Breakdown of Chargeable Hours



VMA and IT: Value-for-money and information technology audits.  
Methods: Includes accounting research, quality control and training.

The data relating to utilization illustrate the steps taken by the BVG over the last years to review how work on financial audits was shared with the external auditor and to optimize our audit approach in this respect. This has allowed us to devote more time to audit value-for-money and

information technology resources. The marked increase in time spent on these audits in 2011 is also due to having filled the positions mentioned earlier.

These data also demonstrate the on-going implementation and development of BVG investigative and forensic accounting activity in 2011, despite the fact that the responsibility for the ethics line now falls under the Service du contrôleur général. We should stress, however, that the ethics hotline is not a prerequisite for investigative and forensic accounting operation because the hotline is only one way of communicating allegations of wrongdoing to all the appropriate parties. On one hand, employees, suppliers, elected officials and citizens can communicate directly with the BVG to share concerns about the city's business and the bodies under its control covered by our mandate under section 107.8 of the *Cities and Towns Act*. On the other, within the context of financial, value-for-money and information technology audits we performed, we are in a position to notice signs of irregularities or fraud that could lead to investigative and forensic accounting operations.

**Table 2—Other Indicators Regarding Utilization**

	Results	
	2011	2010
1. Audit staff turnover	9.4%	3.0%
2. Absenteeism (audit professionals)	1.3%	0.7%
3. Number of training hours	1,047	969
4. Average number of hours of training per employee	33	38
5. Ratio of training costs/payroll expenditures in accordance with Bill 90 (the objective for all city operations is 1%)	2.9%	2.6%

There was a significant increase in our staff turnover rate in 2011, which had been foreseen in last year's report. This increase is due to one retirement, one transfer and one resignation. For the reasons mentioned earlier, we expect a similar turnover rate in 2012. The other 2011 indicators are comparable to those of 2010, apart from a considerable rise in the rate of absenteeism, which was mainly attributable to absences related to short-term disabilities.

## D. EQUAL ACCESS TO EMPLOYMENT

Like the city, the BVG pays particular attention to issues of equal access to employment.

As of December 31 of the last three years, the breakdown of the representation of groups targeted by the *Act respecting equal access to employment in public bodies* was as follows:

**Table 3—Representation of Targeted Groups**

Targeted group	2011	2010	2009
Men	59.4%	58.1%	64.3%
Women	40.6%	41.9%	35.7%

Targeted group	2011	2010	2009
First Nations	0.0%	0.0%	0.0%
Visible minorities	6.3%	3.2%	3.6%
Ethnic minorities	3.1%	0.0%	0.0%
<b>Total</b>	<b>9.4%</b>	<b>3.2%</b>	<b>3.6%</b>

As of December 31 of the last three years, under-representation of targeted groups in the BVG was as follows:

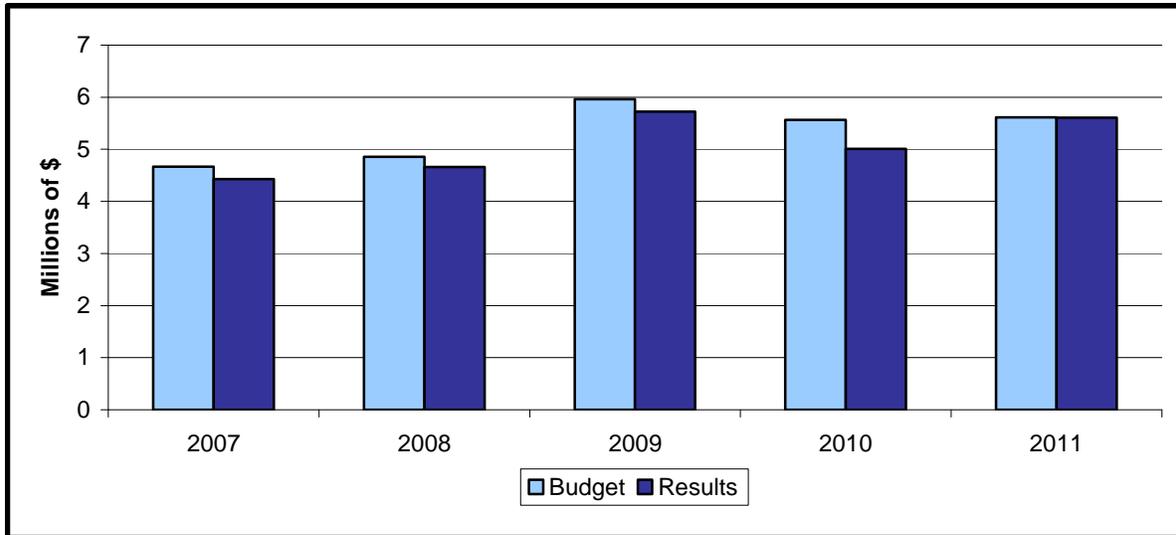
**Table 4—Under-Representation of Targeted Groups**

Targeted group	2011		2010		2009	
	Number	%	Number	%	Number	%
Women	0	0.0	1	3.2	2	7.1
First Nations	0	0.0	0	0.0	0	0.0
Visible minorities	0	0.0	0	0.0	0	0.0
Ethnic minorities	1	3.1	1	3.2	1	3.6

It can be observed that the results of the June 2010 recruitment campaign helped to considerably improve the representation of women on our staff as well as increase the representation of visible and ethnic minorities significantly.

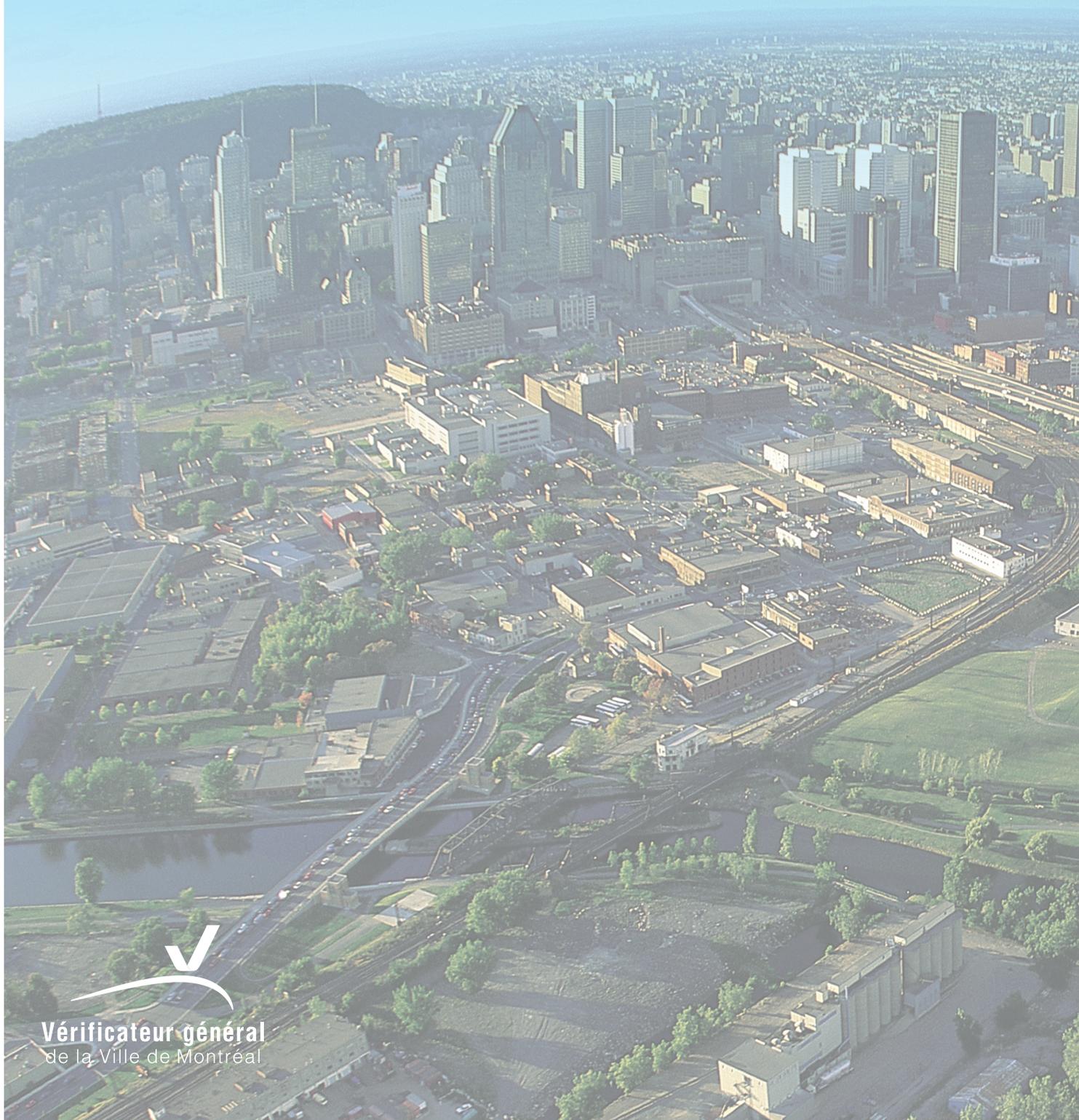
## E. FINANCIAL RESULTS

Graph 4—Budget and Financial Results



The final indicator deals with the BVG's financial results. We want to stress that the significant increase in our 2009 budget resulted primarily from audits requested by city council (for the Société d'habitation et de développement de Montréal [SHDM] and the plan to install water meters in IBIs and optimize the water system). Our 2010 budget also included an additional amount of \$650,000 that was allocated by the executive committee to cover the operating costs of the auditor general ethics hotline. Moreover, an amount of \$151,000 was added to the initial 2011 budget of \$5,024,000 allocated to the auditor general, the minimum required by law, for reimbursing salary costs for BVG professionals released full-time for union activities. There is also an amount of \$147,000 to cover the cost of handling reports in progress when the ethics line was transferred to the Service du contrôleur général. In addition, we included in our 2011 budget an additional sum of \$293,000, representing the surplus from our 2010 budget that should have been allocated to our 2011 budget due to the reasons mentioned in chapter 1, entitled "Comments and Recommendations from the Auditor General."

# III. Investigative and Forensic Accounting Report



Vérificateur général  
de la Ville de Montréal



### III. INVESTIGATIVE AND FORENSIC ACCOUNTING REPORT

#### A. BACKGROUND

In 2010, the Bureau du vérificateur général (BVG) created a unit to manage the auditor general's ethics hotline and provide specialized investigative and forensic accounting services to the other BVG units when there is evidence of irregularities or fraud from audits or allegations received by the BVG.

Although management of the ethics hotline is now the responsibility of the Service du contrôleur général, it should be noted that this unit is only a means among others through which allegations of wrongdoing can be communicated. Furthermore, investigative and forensic accounting activities are included in the auditor general's mission pursuant to section 107.8 of the *Cities and Towns Act*. The auditor general is the only city authority with full power to investigate evidence or allegations of irregularities or illegalities in the management of the affairs of the city and the bodies under its control.

It should be pointed out, however, that the investigative and forensic accounting unit's scope does not include allegations pertaining to breaches of the various collective agreements or any other issue associated with human resources management.

#### B. PROCESSING ALLEGATIONS

Allegations received are handled by the investigative and forensic accounting team according to priority criteria. Every allegation has a thoroughly documented and secured file.

Every allegation received undergoes a preliminary evaluation to establish the suitability of carrying out an investigation based on the nature of the allegation, the probative value of the information provided and the risks involved.

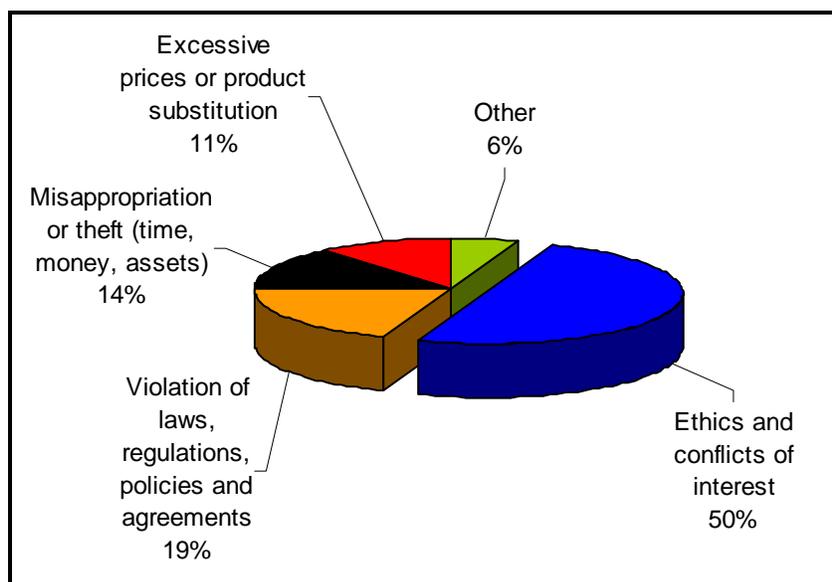
If it is deemed relevant to carry out an investigation, it will be performed in accordance with recognized practices in investigative and forensic accounting. Once the investigation is

completed, an investigative and forensic accounting report can be issued so that the necessary measures are taken by the administration. In cases where there is evidence of criminal acts, the results of our work are communicated to police authorities.

### C. STATISTICS

In 2011, we analyzed 36 allegations. In graph 1, the allegations received in 2011 are broken down by type.

**Graph 1—Overview of Allegations Received in 2011  
By Type**



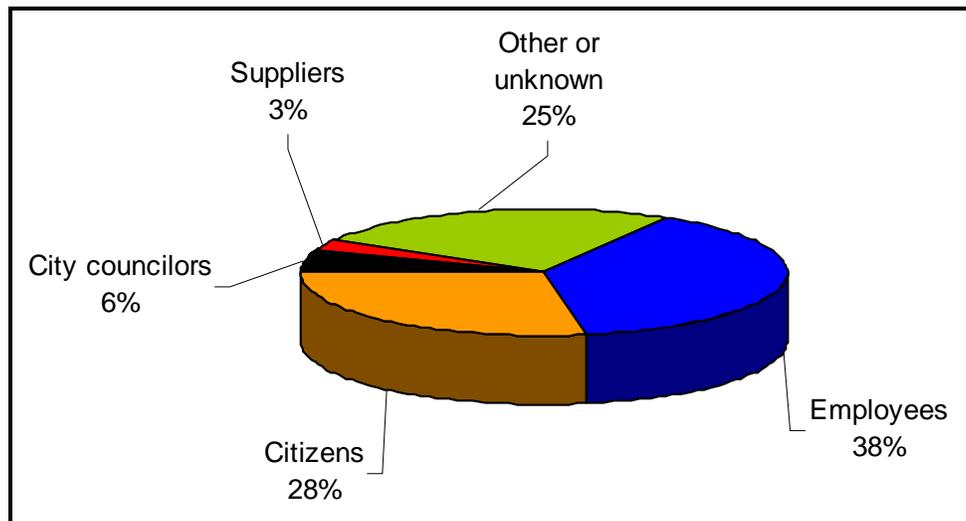
Most of the allegations received pertain to conflicts of interest and ethical issues. The allegations describe unethical or dishonest behaviour as well as situations or actions involving city employees that are contrary to the city’s best interests. In the following section, we will provide a summary of some allegations that we have received.

Approximately half the allegations were communicated to us anonymously (17, or 47%). It is important to point out that we guarantee confidentiality to whistleblowers who agree to disclose their identity. Whenever possible, they are protected against any form of potential retribution. When individuals disclose their identity, it is easier for us to obtain the additional information necessary to pursue our investigation. For five of the allegations that were

communicated to us, the information obtained was too vague or insufficient for us to even carry out a preliminary analysis. These files were therefore closed.

Graph 2 shows the sources of the allegations received. We found that two thirds of the allegations received were from employees or citizens (24 out of 36).

**Graph 2—Overview of Allegations Received in 2011  
By Source**



Among the allegations received, 14 files are presently active. They are currently undergoing more in-depth analyses or being studied in order to carry out planned future audits. Conversely, 22 files have been closed. Of this number, two allegations were determined to be founded or partially founded following our investigation. As for the 20 other files, they were closed either because of insufficient evidence or because no conclusion was required.<sup>1</sup> Table 1 shows the processing status of allegations received in 2011.

<sup>1</sup> For example, when the allegations are not applicable because of issues of irregularity or fraud relating to management of the city's affairs or the bodies under its control.

**Table 1—Overview of Allegations Received in 2011  
By Status**

Status	Number of allegations
<b>Closed</b>	<b>22</b>
• <i>Founded or partially founded</i>	2
• <i>Insufficient evidence</i>	6
• <i>Conclusions not required</i>	14
<b>In progress</b>	<b>14</b>
<b>Total</b>	<b>36</b>

#### D. EXAMPLES OF ALLEGATIONS RECEIVED

Here are a few examples of allegations that were communicated to us. It is important to point out that these allegations have not necessarily been confirmed by our investigations at this point.

**Table 2—Examples of Allegations Received**

Type of allegation	Reporting examples
Misappropriation or theft (time, money, assets)	<ul style="list-style-type: none"> <li>• Request to investigate the compliance of a body's spending with the service agreements and subsidies received by the city.</li> <li>• Allegation of time theft on the part of an employee.</li> <li>• Allegation of use of a city vehicle for personal purposes.</li> </ul>
Ethics, conflicts of interest	<ul style="list-style-type: none"> <li>• Allegation of nepotism and conflict of interest in the awarding of a contract without call for tenders.</li> <li>• Allegation of conflict of interest on the part of a member of the selection committee related to a call for tenders for a professional services contract.</li> <li>• Allegation of favouritism in the granting of a subsidy to a body.</li> </ul>
Excessive prices or product substitution, secret commissions or bribes	<ul style="list-style-type: none"> <li>• Allegation of collusion between bidders, bid rigging, bid suppression or abstention.</li> <li>• Allegation of non-compliance with the contract awarding process and corruption.</li> <li>• Allegation of a city representative wasting public funds.</li> </ul>
Violation of laws, regulations and policies	<ul style="list-style-type: none"> <li>• Examination of conditions and privileges granted to an employee in the context of an external training.</li> </ul>

# IV. Financial Statement Audits



Vérificateur général  
de la Ville de Montréal



# IV.1. Montréal's Consolidated Financial Statements



**Vérificateur général**  
de la Ville de Montréal



## IV. FINANCIAL STATEMENT AUDITS

### IV.1. MONTRÉAL'S CONSOLIDATED FINANCIAL STATEMENTS

The *Charter of Ville de Montréal* and the *Cities and Towns Act* (CTA) both require the city to submit its financial statements to the city clerk's office by March 31 following the close of the preceding year and to the Ministère des Affaires municipales, des Régions et de l'Occupation du territoire (MAMROT), using the prescribed form, by April 30.

As this report went to press, the city's financial statements had not yet been submitted and their audit had not been completed, given the delay in the appointment of our joint auditor by authorities.



# **IV.2. Financial Statements of Other Municipal Bodies**



**Vérificateur général**  
de la Ville de Montréal



## IV.2. FINANCIAL STATEMENTS OF OTHER MUNICIPAL BODIES

To comply with the *Cities and Towns Act* (CTA) in effect on December 31, 2011, we must conduct financial audits of every body that meets one of the following criteria:

- It is part of the reporting entity defined in the municipality's financial statements.
- The municipality or its representative appoints more than 50% of the members of its board of directors.
- The municipality or its representative holds more than 50% of its outstanding voting shares or units.

Table 1 on the following page shows the other municipal bodies for which we must provide financial statement reports and indicate reports issued to April 30, 2012 for the fiscal years ended in 2010 and 2011.

**Table 1—Other Municipal Bodies Governed by the CTA and Reports  
Produced on their Financial Statements as of April 30, 2012**

Other municipal bodies	Fiscal year ended in	
	2011	2010
Anjou 80		
Bixi Toronto Inc.		
Commission des services électriques de Montréal		
Conseil des arts de Montréal		
Conseil interculturel de Montréal		
Corporation d'habitation Jeanne-Mance		
Fiducie du Technoparc Montréal		
Office de consultation publique de Montréal		
Office municipal d'habitation de Montréal		
Société de gestion Marie-Victorin		
Société de gestion NauBerges de Lachine		
Société de jalonnement dynamique de Montréal		
Société de transport de Montréal		
Société de vélo en libre-service		
Société en commandite Stationnement de Montréal		
Société d'habitation et de développement de Montréal		
Société du parc Jean-Drapeau		
Technoparc Montréal		

- Reports produced between May 12, 2011, and April 30, 2012 (Reference: 2011 annual report).
- Reports produced before May 12, 2011 (Reference: 2010 annual report).
- No report to produce, bodies added to our reporting scope in 2011.

# V. Value-for-Money and Information Technology Audit



Vérificateur général  
de la Ville de Montréal



# V.1. Follow-Ups to Recommendations from Previous Years



**Vérificateur général**  
de la Ville de Montréal



## V. VALUE-FOR-MONEY AND INFORMATION TECHNOLOGY AUDIT

### V.1. FOLLOW-UPS TO RECOMMENDATIONS FROM PREVIOUS YEARS

The percentage of the Auditor General's recommendations that received concrete corrective measures is an essential indicator to ensure that departments and boroughs implement these recommendations promptly.

The policy of the Bureau du vérificateur général (BVG) is to initiate a follow-up to the recommendations the year after they appear in the annual report. The follow-up to the recommendations for a given year generally extends over a maximum period of three years, except in very specific circumstances when some recommendations are monitored for an additional year or two.

The results of the follow-up to the recommendations made in the annual reports for years 2005 to 2010 are shown in Table 1, with the exception of follow-ups related to recommendations involving the Société de transport de Montréal (STM), which we discuss separately at the end of this section.

**Table 1—Results of the Follow-Up to the Recommendations**

Status of recommendations	Number of recommendations per year						
	2005	2006	2007	2008	2009	2010	Total
Completed	182	228	159	62	173	121	925
Under way	–	–	12	3	88	40	143
Deferred	–	–	–	2	3	8	13
Cancelled	6	–	2	1	6	–	15
Not done	9	13	7	2	1	–	32
No longer valid	3	3	2	1	–	–	9
Other*	–	–	–	–	15	6	21
<b>Total number of recommendations made</b>	<b>200</b>	<b>244</b>	<b>182</b>	<b>71</b>	<b>286</b>	<b>175</b>	<b>1,158</b>

\* New recommendation.

For recommendations made in 2010, 92% have been “completed” or are “under way” compared with the city administration’s annual objective of 80%.

The follow-up done in March and April 2012 for recommendations made since 2005 showed that 925 were completed, including 198 that were completed during the past 12 months. On a cumulative basis (over the last six years), therefore, close to 80% of recommendations were completed, whereas 12% are under way. This is the highest completion rate in the past six years.

Nevertheless, the results of our follow-up show that 41 of our recommendations were not implemented for the years 2005 to 2010. Among these, 32 are not done and 9 are no longer valid (see Table 2). Although our follow-up cycle for these recommendations is over according to our methodology, we would still ask the Direction générale to ensure that these recommendations are implemented by the units involved. This exercise should, of course, take into consideration the changes that have occurred both with regard to the organizational structure as well as the management systems.

No action has been taken by the units involved for the 21 other recommendations whose status (“other,” new recommendation) has never been updated, even though action plans had initially been sent to us. We would ask the Direction générale to support us once again by ensuring that concrete action is taken by these business units.

Given that most of these recommendations (40 out of 62) are major, their implementation could bring about significant improvements in the management of the city’s activities.

**Table 2—Details on Recommendations Made between 2005 and 2010  
with a Status of “Not done”, “No Longer Valid” and “Other”**

Business unit Report title	Annual report	Recommendation status			Recommendation category	
		Not done	No longer valid	Other <sup>1</sup>	Major	Not major
<b>Ahuntsic-Cartierville borough</b>						
Cost Estimates for Public Works Contracts	2006	3			2	1
<b>Côte-des-Neiges–Notre-Dame-de-Grâce borough</b>						
Waste Management (Recyclables)	2005		2		1	1
<b>Lachine borough</b>						
Waste Management (Recyclables)	2005	1	1		1	1
<b>Montréal-Nord borough</b>						
Building Maintenance Management	2005	2				2
<b>Verdun borough</b>						
Building Maintenance Management	2005	6			4	2
Cost Estimates for Public Works Contracts	2006	2			1	1
E-Mail at the Ville de Montréal	2006		2			2
Fleet Management	2009			14	6	8
<b>Service du capital humain</b>						
Management of Occupational Health and Safety	2006		1		1	
<b>SCARM<sup>2</sup> – Direction de l’approvisionnement</b>						
Collective Purchase Agreement for the Provision and Distribution of Office Supplies	2010			2	2	
<b>SCARM<sup>2</sup> – Division des relations avec les citoyens – 311</b>						
Management of Work Orders (GDT)	2008	2			1	1
<b>SCARM<sup>2</sup> – Direction des stratégies et des transactions immobilières</b>						
Faubourg Contrecoeur Project	2009			1	1	
Faubourg Saint-Laurent Project—Phase III Land Sale	2010			2	2	
<b>Direction générale</b>						
Monthly CSST Reports Audit Process and Temporary Assignments	2006	1			1	
Outsourcing Project for Telecommunications Services	2009	1			1	
<b>Direction générale – Greffe</b>						
E-Mail at the Ville de Montréal	2006	1			1	
Follow-Up on Recommendations of the Standing Committees (City Council and Agglomeration Council)	2007	3			3	
<b>SDO<sup>3</sup> – Direction de l’environnement et du développement durable</b>						
Contaminated Soil Management	2008		1			1
<b>SDO<sup>3</sup> – Direction du développement économique et urbain</b>						
Quartier des spectacles Development Projects	2010			1		1
<b>SDO<sup>3</sup> – Administration</b>						
Quartier des spectacles Development Projects	2010			1	1	
<b>Service de l’eau</b>						
Rehabilitation of Water Infrastructure Systems	2006	2			2	
<b>Service de police de la Ville de Montréal</b>						
Service Continuity Plan—Civil Protection	2007	2			2	
<b>Service de sécurité incendie de Montréal</b>						
Fire Prevention Activities	2007	1	2		3	
Service Continuity Plan—Civil Protection	2007	1			1	
<b>Service des technologies de l’information</b>						
Information Processing Centres’ Environment	2006	2			1	1
E-Mail at the Ville de Montréal	2006	2			2	
<b>Total number of recommendations</b>		<b>32</b>	<b>9</b>	<b>21</b>	<b>40</b>	<b>22</b>
			<b>62</b>		<b>62</b>	

<sup>1</sup> New recommendation.

<sup>2</sup> Service de la concertation des arrondissements et des ressources matérielles.

<sup>3</sup> Service du développement et des opérations.

We also followed up on recommendations from the audits involving the STM. These audits dealt with tests of physical intrusion into its facilities and the integrated control system of the Montréal metro. The results of this follow-up are presented separately since the STM is not subject to the accountability methods established by the municipal administration, but by those set by its board of directors. The results of follow-ups to the 17 recommendations issued as part of these audits are presented in Table 3.

**Table 3—Results of the Follow-Up to the  
Recommendations in Audits Involving the STM**

<b>Status of recommendations</b>	<b>Number of recommendations</b>
	<b>2010</b>
Completed	5
Under way	9
Deferred	3
<b>Total number of recommendations made</b>	<b>17</b>

**V.2.**

**Application of the *By-law Concerning  
the Sanitation, Maintenance and  
Safety of Dwelling Units***



**Vérificateur général**  
de la Ville de Montréal



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## LIST OF ACRONYMS

CBFVM	consolidated by-laws of the former Ville de Montréal	SMVTP	Service de la mise en valeur du territoire et du patrimoine
SCH	Service du capital humain	SSIM	Service de sécurité incendie de Montréal
SDO	Service du développement et des opérations		

## V.2. APPLICATION OF THE *BY-LAW CONCERNING THE SANITATION, MAINTENANCE AND SAFETY OF DWELLING UNITS*

### 1. INTRODUCTION

Housing conditions constitute a key issue in the orientations and strategies adopted by the Ville de Montréal (the city) to improve Montréalers' housing and living environment. The city must deal with situations where housing conditions pose a threat to the health and safety of occupants and the general public, thereby adversely affecting their quality of life.

Under the *Municipal Powers Act* (RSQ,<sup>1</sup> chapter C-47.1), the city has jurisdiction over sanitation and the authority to adopt relevant by-laws. After the 2002 municipal restructuring, therefore, a new by-law entitled the *By-law concerning the sanitation, maintenance and safety of dwelling units* (03-096) (the By-law) was adopted by city council on June 16, 2003, following a public study. This By-law, which replaced the by-law in effect within the former Ville de Montréal and by-laws adopted by certain boroughs created from the former suburban municipalities, applies on a city-wide basis. It targets all residential properties and their outbuildings, e.g., sheds, balconies, garages, car shelters.

*Sanitation* refers to all the conditions that make a dwelling fit to live in. The By-law specifies minimum standards for maintenance, floor area, lighting, ventilation, plumbing fixtures, plumbing, electrical systems and heating. It is intended to eliminate problems such as uncleanliness; vermin, insects and rodents; noxious odours and toxic fumes; water infiltration and moisture; and deterioration to the dwelling. The By-law empowers municipal representatives, namely inspectors, to rectify a situation that endangers the health or safety of occupants or the general public (e.g., missing guard rail, unstable staircase, unsafe wall or vacant building that needs to be barricade). It specifically authorizes the city to crack down more effectively by imposing considerable fines, by

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<sup>1</sup> Revised Statutes of Québec.

ordering the evacuation of a dwelling unit or building or by carrying out work in place of a building owner.

The *By-law concerning the delegation of city council powers to borough councils* (02-002) delegates to each of the 19 borough councils the responsibility to enforce the aforementioned By-law (03-096). In most of the boroughs, enforcement is administered by the Division des permis et des inspections of the Direction de l'aménagement urbain et des services aux entreprises.

The former Service de la mise en valeur du territoire et du patrimoine (SMVTP) was responsible for supporting the boroughs' By-law enforcement activities, in particular by:

- delivering training to key stakeholders (e.g., training inspectors on the provisions and application of the By-law)
- providing expertise upon request for more complex cases where special measures were required (e.g., work carried out in lieu of a landlord)

The SMVTP was abolished in spring 2010, and its housing-sanitation responsibilities were subsequently transferred to the Direction de l'habitation (Division de la salubrité) of the Service du développement et des opérations (SDO).

Three years after this By-law came into force, the city administration sought to assess its impact. As a result, in fall 2006, it asked city council's [TRANSLATION] *Municipal council Standing Committee on Development, Urban Planning and Public Transportation*<sup>2</sup> to hold public hearings on the SMVTP's 2003–2006 report on the application of the By-law. The results of these hearings revealed that in 2006, people were still forced to live in unsanitary housing conditions, despite the fact that the city had adopted a by-law in 2003 outlining clear standards and granting extensive powers to the boroughs to improve housing quality in Montréal. A recommendation was therefore made to Montréal's executive committee and city council to set aside the necessary human and financial resources to ensure the strict application of the By-law, so all Montréalers have access to adequate housing.

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<sup>2</sup> Now known as the « Commission sur le développement économique et urbain et l'habitation ».

**V. Value-for-Money and Information Technology Audit**  
**V.2. Application of the *By-law Concerning the Sanitation, Maintenance and Safety of Dwelling Units***

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Consequently, the city administration prioritized municipal efforts to reach its housing condition goals, and the SMVTP was mandated to implement an action plan to help boroughs apply the By-law. As a result, on June 13, 2007 the city executive committee adopted the [TRANSLATION] *Action Plan to Improve Housing Safety*, which outlined the SMVTP's level of involvement in enforcing the By-law and earmarked \$1 million a year for the duration of the action plan (July 2007 to July 2010). Among the items that were to be covered by the annual \$1-million budget were the salary of the inspection team, the cost of relocating tenants and the cost of carrying out work in place of a landlord (roughly \$300,000). This action plan determined, among other things, that the SMVTP would oversee the application of the By-law in complex situations, such as those involving extreme unsanitary conditions requiring action that would exceed the boroughs' normal enforcement capacity because of the number of dwellings to be inspected, the magnitude and nature of the problems identified, uncooperative landlords or other similarly challenging considerations. A formal agreement (memorandum of understanding) with the boroughs involved outlined the corresponding roles and responsibilities and allowed the SMVTP to conduct systematic inspections of a series of dwellings and apartment buildings specifically targeted in this agreement, i.e., those exhibiting severe unsanitary conditions. The SMVTP was initially to inspect up to 10,000 dwellings during the three-year operation. At the time of our audit, memoranda of understanding had been reached with 14 boroughs for 581 apartment buildings, representing a total of 10,587 dwellings to be inspected within three years. Although the [TRANSLATION] *Action Plan to Improve Housing Safety* expired in July 2010, SDO budget documents confirm that the Direction de l'habitation will continue to inspect all dwellings for which an agreement was signed with a borough in 2011 and perform any necessary reinspections. Consequently, an annual inspection target of 2,000 new dwellings has been set for 2011–2013.

Year after year, economic and social factors continue to exacerbate habitability problems in Montréal, where 66% of households are renters. Two trends are emerging in this regard. First, low-income households account for a growing percentage of renters.<sup>3</sup> Second, because very few rental properties have been built in Montréal in recent years, the city's rental housing stock is aging, fuelling a steady increase in rent

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<sup>3</sup> *Profil statistique en habitation de l'agglomération de Montréal*, Direction de l'habitation, SMVTP, May 2009, p. 4 and 16.

prices (cumulative rent price increase in excess of 30% since 2000, compared with a roughly 20% inflation rate for same period<sup>4</sup>). An increasing segment of the population is therefore becoming more vulnerable, as their housing options dwindle and living conditions deteriorate. Although the By-law is not the only means of improving Montréalers' housing and living environment, it is nevertheless a significant source of leverage in compelling landlords to take action to improve the condition of their properties, especially rental properties. This is why it is important for the By-law to be strictly enforced.

## **2. AUDIT SCOPE**

The purpose of this audit was to ensure that the relevant business units have implemented appropriate measures for the By-law and corresponding action plan to meet their goals of enforcing a minimum standard of living conditions and improving overall housing quality.

Our audit focused particularly on rental housing and examined:

- the location of rental housing in Montréal that poses problems because of insufficient sanitation, maintenance or safety, and the proposed strategies for ensuring compliance with the By-law
- inspection follow-up
- objectives, performance indicators and accountability

Our audit work was conducted in the Division de la salubrité of the Direction de l'habitation of the SDO and in the Division des permis et des inspections of the Direction de l'aménagement urbain et des services aux entreprises in the following boroughs: Ville-Marie, Montréal-Nord, Le Sud-Ouest and Villeray–Saint-Michel–Parc-Extension. Although they did not fall within the scope of our audit, the Service de sécurité incendie de Montréal (SSIM) and the Service du capital humain (SCH) also provided information that was taken into consideration in this report. The audit began in June 2011 and focused on the period from January 2007 to August 2011, and incorporated additional

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<sup>4</sup> *Canadian Housing Observer, Housing Market Indicators*, Montréal, 1990–2009, Canada Mortgage and Housing Corporation, 2010.

information submitted to us up until December 16, 2011. Some information predating this period was also used for comparison purposes.

### 3. FINDINGS, RECOMMENDATIONS AND ACTION PLANS

#### 3.1. LOCATING AND ADDRESSING NON-COMPLIANT RENTAL HOUSING IN MONTRÉAL

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

To effectively reach city administration objectives to improve housing conditions and quality in Montréal, it is important to implement measures to provide key municipal stakeholders with a comprehensive overview of the situation that allows them to locate and characterize substandard rental housing in their respective communities. Identifying the location of these properties and the scope of their sanitation or safety problems is essential to channel actions towards the priorities, therefore contributing to better living conditions for tenants. Ultimately, an accurate picture of housing conditions in the city, combined with an effective strategy for dealing with substandard housing, should make it possible to assess the long-term impact of the efforts made in this regard.

According to the most recent statistics compiled by the Direction de l'habitation (May 2009), 487,605 of the 743,235 dwelling units listed in the city are rental units. Of these, 434,724 are privately owned rental housing units and 52,881 are social and community housing. The latter group includes low-income housing, such as the properties owned by the Office municipal d'habitation de Montréal (OMHM) and the Société d'habitation et de développement de Montréal (SHDM), and cooperative housing.<sup>5</sup>

Currently, some 80% of the city's rental housing stock is more than 30 years old and is affected by numerous renovation needs. The latest Statistics Canada census, in 2006, indicated that 11% of dwellings in Montréal required major repairs (e.g., faulty plumbing or heating systems; leaks and mould; deteriorating wall, floor or ceiling structure that

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<sup>5</sup> *Profil statistique en habitation de l'agglomération de Montréal*, Direction de l'habitation, SMVTP, May 2009.

endangers the safety of tenants and the general public), which is approximately 2% higher than the previous census results (2001).<sup>6</sup>

We wanted to examine the strategy used by the business units targeted by our audit to enforce the By-law and, simultaneously, the extent to which this strategy was in line with information on housing conditions in the city and the characterization of dwellings with sanitation or safety issues.

It is important to remember that the Direction de l'habitation's Division de la salubrité provides support to boroughs in such matters as the inspection of dwellings specifically identified in memoranda of understanding between the city and the boroughs (in accordance with the action plan adopted in 2007). The cases in which the central department's involvement is required are generally highly complex, in the magnitude of the issues involved or the number of units to be inspected, and call for action that sometimes exceeds the boroughs' normal enforcement capacity (e.g., insufficient number of inspectors to provide follow-up, need for specialized expertise). Consequently, all cases involving substandard housing conditions addressed by the Division de la salubrité come directly from the boroughs.

The information we gathered indicates that the cases transferred by the boroughs to the Division de la salubrité, as well as those the boroughs process themselves, are almost entirely the result of public complaints or reports filed by agencies such as the SSIM, the Service de police de la Ville de Montréal or local community service centres (CLSC).

Whether they are handled by the Direction de l'habitation or one of the boroughs, reported cases are assigned to an inspector, who manages the file and performs inspections, issues notices of non-compliance to encourage the landlord to address the identified defects and, as required, initiates the corresponding penal procedures (statements of violation) stipulated in the By-law. Should a landlord fail to take the specified corrective action, the By-law (section 2, article 17) provides for special measures to be imposed, including the execution of work in place of the landlord, and at

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<sup>6</sup> *Idem.*

the landlord's expense. The scale of spending for these types of actions is nevertheless modest.

In the boroughs we audited, however, we found that none of the enforcement activities carried out were done in connection with a preventive inspection program or any other method that would identify and address substandard housing (e.g., an investigation in the form of a public survey followed by a visit, neighbourhood walkthroughs). As we read through the working document [TRANSLATION] *Application of the By-law concerning the sanitation, maintenance and safety of dwelling units* (April 2003), prepared by the Direction de l'habitation in preparation for the standing committee's public study of the new by-law, we discovered that each borough was supposed to adopt a plan for applying the By-law that would include a preventive strategy as well as complaint resolution procedures. To date, however, it would appear that all actions taken to enforce the By-law are almost exclusively in response to a complaint rather than part of a proactive management approach. According to the officials we interviewed, the heavy workload imposed on borough inspectors, who have a large number and variety of by-laws to enforce, and the high turnover among inspectors are at least partially to blame for the fact that enforcement activities are limited to addressing the complaints and reports received.

Similarly, we observed that after inspectors have taken action—especially in the more serious cases administered by the Direction de l'habitation—there are no specific follow-up procedures in place to ensure that housing conditions remain at acceptable levels, despite the high risk of recidivism among violators.

Consequently, although the outcomes of inspections performed in response to complaints or requests provide information on housing quality, we found that neither the boroughs we audited nor the Direction de l'habitation has a comprehensive and up-to-date overview of the situation indicating the precise location of substandard housing and the nature of the various sanitation or safety problems.

We also briefly reviewed information compiled by the SSIM. Given its function in public safety and fire prevention, the SSIM is also concerned with buildings in the boroughs. It

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is responsible for enforcing by-laws such as the *By-law concerning fire prevention* (CBFVM,<sup>7</sup> c. P-5.1) and the *By-law providing for certain fire prevention and public safety measures* (CBFVM, c. M-3). Our audit revealed that the SSIM has a record of 358 properties that possess structural problems or fire hazards.<sup>8</sup> These buildings are classified as vacant, hazardous or high-risk and have been assessed for structural stability, quality of exterior cladding and fire resistance. In our opinion, the SSIM information could be used by the boroughs to improve their databases with details on building locations and conditions and direct their priorities for action. We therefore asked officials in the audited boroughs to find out if they had this information. We discovered that four boroughs had a list of vacant or hazardous buildings within their respective communities. However a comparison of this information with SSIM records showed that the boroughs' lists at the time of the audit were incomplete and out of date. We therefore feel that greater effort could be invested in ensuring that boroughs regularly receive updated information about buildings identified as unsafe or in poor condition from the city's other business units. In short, we found that the boroughs have very little information to help determine their priorities for action and be more effective in enforcing the By-law.

It is worth pointing out that the Direction de l'habitation did attempt to broaden its knowledge of the location and scope of sanitation and safety problems in the residential housing sector. Although the results are no longer current, a study conducted in 1991<sup>9</sup> showed that between 1% and 1.5% of Montréal's rental dwellings were located in buildings classified as poorly maintained. Another study was carried out in 2004<sup>10</sup> in conjunction with the Direction de santé publique of the Agence de la santé et des services sociaux de Montréal to update information on the condition of the city's rental housing stock in order to more accurately determine the types of deficiencies that exist, the types of buildings that present the highest risk and the areas most affected. Although the study did shed some light on the matter, it did not yield a comprehensive overview of housing conditions in Montréal. A new study is currently underway to provide, among other things, a detailed picture of living conditions for tenants in

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<sup>7</sup> *Consolidated by-laws of the former Ville de Montréal.*

<sup>8</sup> Information provided by the SSIM on October 17, 2011.

<sup>9</sup> *L'état du parc résidentiel locatif de Montréal*, INRS-Urbanisation, Francine Dansereau, October 1991.

<sup>10</sup> *Localisation et ampleur des conditions d'habitation problématiques à Montréal*, joint pilot project between the Direction de santé publique de Montréal and Direction de l'habitation de la Ville de Montréal, June 2004.

Montréal, specifically sanitation, safety and nuisances. Based on the information we received, the results of this study—a joint initiative with the Société d'habitation du Québec—are slated to be released in the first half of 2012.

The information we compiled appears to indicate that, in general, most actions taken by city boroughs are in response to a complaint or a report of some kind. We therefore compared the number of rental dwellings that were inspected by one of the city's business units between 2007 and 2010 with the total number of rental dwellings in the city and found that the city inspected only about 5% (26,084 inspections<sup>11</sup> for 487,605 rental dwellings). This leads us to conclude that the current response strategy employed by the boroughs and the Direction de l'habitation restricts the effects of the By-law and will make it difficult, even impossible, to reach the city administration's objectives for improving the quality of living conditions in Montréal over a specific period.

Finally, to obtain a more accurate comparison of the situation in Montréal and other North American cities, we took a closer look at the strategies adopted by Los Angeles, New York, Boston, Vancouver and Toronto, all of which have housing sanitation and safety by-laws in place.

A comparative analysis highlighted some interesting differences. Compared with Montréal:

- The city of New York, following surveys of 18,000 rental households conducted over several years, has developed an overview of its housing situation that allows it to quantify the number of dwellings within the city that have serious maintenance problems (e.g., defective heating systems, water leaks, rodent infestations). This information is updated every three years.
- The city of Toronto, following a 2010 survey involving 4,000 buildings, also has access to information that allows it to assess housing quality and focus on cases that cause the most concern. City officials plan to update the survey data on an ongoing basis.

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<sup>11</sup> Division de la salubrité: 9,494 inspections. Boroughs: 16,590 inspections. Total: 26,084 inspections.

- All five cities charge fees that are used to cover all or part of the cost of their response strategy (e.g., inspection and reinspection fees and permit fees for rental units) (See Appendix 4.1).
- Four of the five cities—Los Angeles, New York, Boston and Toronto—engage in preventive inspections in addition to inspections performed in response to a complaint. The city of Los Angeles routinely inspects apartment buildings every four years (see Appendix 4.1), and the city of New York runs an ongoing program designed to ensure housing meets cleanliness and maintenance standards.
- Three of the cities—Los Angeles, Boston and Vancouver—have adopted a more aggressive approach to exert pressure on non-compliant landlords (e.g., the city can seize a portion [up to a maximum of 50%] of rental income if a non-compliant landlord does not carry out required repairs; landlords must apply yearly for a permit to operate a rental property, which may be revoked if adequate housing conditions are not provided) (See Appendix 4.1). In addition, Los Angeles, New York and Toronto publish inspection reports on their website.

In conclusion, the imposition of a regulatory framework to address housing sanitation, maintenance and safety problems endows Montréal's business units with the necessary powers to improve housing conditions within the city. However, to maximize the effectiveness of this incentive, ensure responses are consistent with priorities and make it possible to evaluate the impact of this approach to the housing situation, we feel it is necessary to have an overview of the situation to identify the scope of the housing problem within the city and determine the geographical location and condition of dwellings in poor condition. The city's response strategy should therefore foster stricter enforcement of the current By-law.

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

**To ensure responses are in line with priorities and eventually be in a position to assess the long-term effectiveness of the measures undertaken to enforce the *By-law concerning the sanitation, maintenance and safety of dwelling units*, we recommend that the Direction de l'aménagement urbain et des services aux entreprises in the boroughs of Ville-Marie, Montréal-Nord, Le Sud-Ouest and**

Villeray–Saint-Michel–Parc-Extension, in conjunction with the Direction de l’habitation:

- A) take all necessary measures to acquire a comprehensive and up-to-date overview of the housing situation, indicating the location of non-compliant housing within their respective areas and the nature of the corresponding sanitation and safety problems
- B) obtain and regularly update information from other city business units on the condition of buildings identified as unsafe or in poor condition

In order to strengthen the impact of the By-law, we also recommend that the Direction de l’aménagement urbain et des services aux entreprises in Ville-Marie, Montréal-Nord, Le Sud-Ouest and Villeray–Saint-Michel–Parc-Extension carry out the necessary analyses to re-evaluate their response strategy and incorporate additional measures such as a preventive inspection program, ongoing monitoring to ensure continued compliance with sanitation criteria and solutions to offset inspection costs.

### 3.1.C. Action Plans of the Relevant Business Unit

#### 1.A) • VILLE-MARIE BOROUGH

*[TRANSLATION] “A report entitled [TRANSLATION] Housing Sanitation Issues in Ville-Marie Borough will be drafted in summer 2012 to obtain an overview of the state of housing conditions in the borough.*

*Databases will be georeferenced. They will include information on vacant buildings, hazardous buildings, real estate assessment roll figures, complaints, sociodemographic data and risk coverage (the SSIM). Other databases deemed relevant will be correlated to develop a geographic information indicator. Thematic maps will be updated and analyzed.*

*We will work closely with the Direction de l’habitation on the survey it proposes to develop and administer city-wide. Data relevant to this survey will be shared and transmitted on a regular basis.” (Planned completion: September 2012)*

- **MONTRÉAL-NORD BOROUGH**

*[TRANSLATION] “Based on what we have learned from the borough’s 1,225 enforcement responses for housing sanitation, maintenance and safety over the past five years, we now have a fairly accurate idea of which dwelling units are potential sources of this type of problem. Our findings indicate that most problems arise in multi-residential buildings with more than 11 dwellings. These 1,080 buildings represent a total of 7,500 units.*

*We will make this type of building our priority. We will carry out a detailed analysis of the nature of the problems encountered and use this information to draw up a list of preventive measures to be implemented.” (Planned completion: March 2012)*

- **LE SUD-OUEST BOROUGH**

*[TRANSLATION] “Launch an operation to update our databases on housing sanitation as well as buildings classified as vacant or hazardous. Close inactive projects and clean up databases for a realistic idea of inspectors’ actual workload. (Planned completion: December 2012)*

*The first step will involve preparing a map, using information from our databases, showing the location of buildings with unresolved sanitation issues, as well as buildings categorized as vacant or hazardous. This map should be updated regularly and shared with other partners, such as CLSCs and the SSIM. (Planned completion: December 2012)*

*The second step will be to build a map-based database that keeps a chronological record of housing sanitation cases and cases related to vacant or hazardous buildings. (Planned completion: March 2013)*

*The borough will hire an inspector and an administrative employee on a temporary basis in 2012 to improve the information it has on the buildings located in the borough.” (Planned completion: December 2012)*

- **VILLERAY–SAINT-MICHEL–PARC-EXTENSION BOROUGH**

[TRANSLATION] “Using the city’s existing technological tools, cross-reference the following information, and plot on a map:

- building age
- social and economic characteristics of households
- housing-related complaints over the past five years.

*This map would make it possible to focus on problem areas where sanitation issues are concentrated.” (Planned completion: September 2012)*

- **DIRECTION DE L’HABITATION**

[TRANSLATION] “Develop and administer a tenant survey, depending on the funds required and whether the boroughs can and want to contribute, to determine:

- overall condition of rental properties in Montréal
- maintenance needs
- renovation needs. **(Planned completion: First surveys to be conducted in May 2013)**

*The survey:*

- Sample size should be large enough to ensure the resulting housing condition overview for each borough is reliable.
- Sample size and number of questions in the survey will determine the cost of the operation (estimation underway).
- To document changes in rental housing conditions, the same survey will need to be repeated at a frequency to be determined.”

- 1.B) • **VILLE-MARIE BOROUGH**

[TRANSLATION] “An action plan on rooming houses has been in effect since October 2010 with a number of stakeholders, including the Service de police de la Ville de Montréal, CLSCs, the Office municipal d’habitation de Montréal and tenant associations. Ville-Marie borough inspectors are called in to handle the more serious cases.” **(Planned completion: September 2012)**

- **MONTRÉAL-NORD BOROUGH**

[TRANSLATION] “In order to complete the overview and prepare a more complete list of high-risk buildings, the borough will commit to share information gathered by various local stakeholders (the SSIM, CSSSs, etc.).

Bearing this in mind, the borough is putting the finishing touches on a unique memorandum of understanding with the local CLSC to pool our knowledge of the milieu. Among other things, this agreement will determine the conditions for future updates.” **(Planned completion: May 2012)**

- **LE SUD-OUEST BOROUGH**

[TRANSLATION] “Development of a memorandum of understanding between the SSIM and the Direction de l’aménagement urbain et des services aux entreprises of Le Sud-Ouest borough. One of the sections of the agreement will need to focus on better data sharing regarding building safety.” **(Planned completion: December 2012)**

- **VILLERAY–SAINT-MICHEL–PARC-EXTENSION BOROUGH**

[TRANSLATION] “Attach the SSIM’s list of problem buildings to the aforementioned map, as well as the upcoming results from the survey conducted by the Direction de l’habitation and the Société d’habitation du Québec. The resulting composite map should be updated annually.

Meet with city IT officials to exchange relevant information, especially information from the SSIM.” **(Planned completion: September 2012)**

2) • **VILLE-MARIE BOROUGH**

[TRANSLATION] “Only 30% of the buildings in Ville-Marie are residential, and housing-related reports represent a mere 8% of all reports received. Nevertheless, a follow-up program will be set up, in line with the recommendations of this report, and an awareness campaign will be initiated. **(Planned completion: November 2012)**

*Enforcement strategies will be developed and implemented in 2012 and re-evaluated in 2013 with a view to optimize procedures.” (Planned completion: March 2013)*

- **MONTRÉAL-NORD BOROUGH**

*[TRANSLATION] “The vast majority of cases currently being investigated are the result of complaints filed with the borough. The borough plans to institute preventive action to increase the annual number of inspections by 20% and devote one person-year to the task.*

*A detailed report will be prepared at the end of every year, to include an update on prevention and follow-up activities.” (Planned completion: April 2012)*

- **LE SUD-OUEST BOROUGH**

*[TRANSLATION] “Initiate a detection program to identify substandard housing in the borough.” (Planned completion: December 2012)*

- **VILLERAY–SAINT-MICHEL–PARC-EXTENSION BOROUGH**

*[TRANSLATION] “Besides continuing to handle complaints on a case-by-case basis, the borough will also focus its strategy on tracking down housing problems. Target geographical areas will be analyzed to detect key sanitation-related problems. These areas would be identified in a service agreement with the Direction de l’habitation for conducting preventive inspections. On-site inspections of these areas might be staggered over a period of two to four years.*

*The memoranda of understanding will require an implementation plan that outlines the steps for inspection, follow-up, legal proceedings where necessary and the respective roles of the business units involved.” (Planned completion: March 2013)*

### **3.2. FOLLOW-UP ON ACTIVITIES**

As previously mentioned, inspectors are responsible for enforcing compliance with applicable municipal housing standards in terms of sanitation, maintenance and safety. When they receive a complaint or report, they inspect the premises in question to assess compliance and determine the necessary corrective action to be taken. Following their inspection, inspectors may issue a statement of violation. However, they generally start by issuing a notice of non-compliance to provide violators with a reasonable opportunity to remedy a problem within a specified timeframe. Inspectors must then follow up to ensure the corrective action is taken, negotiate extensions if more time is needed to complete the repairs and initiate penal procedures for uncooperative offenders.

To carry out these and other tasks, Ville-Marie borough has nine inspectors on staff, Montréal-Nord five, Le Sud-Ouest four and Villeray–Saint-Michel–Parc-Extension seven, and the Direction de l'habitation has nine. All of these business units use the computer application known as *Gestion du territoire – Permis* to record the details of inspection-related activities for every case, including the address, a brief description of the reported problem, the name of the violator, the name of the party filing the complaint, the name of the inspector assigned to the case, the start and end date of the actions taken and notes or observations made by the various parties, if appropriate.

For the sake of maximum clarity, it is important to reiterate that the cases administered by the boroughs are generally in response to a complaint or report about a specific dwelling unit (rarely more than one unit at a time), except those involving emergencies that pose a threat to tenants' well-being (e.g., a building evacuation). The number of violations in these cases tends to be low (e.g., fewer than 10 per case). In comparison, the cases processed by Direction de l'habitation inspectors, under the [TRANSLATION] *Action Plan to Improve Sanitary Conditions in Housing*, usually involve buildings of up to 72 units, which requires a comprehensive inspection of the whole building. These properties are sometimes in a state of major disrepair, with as many as 800 violations throughout the building. We feel it is important, however, to put this information into perspective and, under the circumstances, we believe that the Direction de l'habitation's

responses require additional effort (e.g., visiting a building three times to complete an initial inspection report and determine the required corrective action). Given the number of violations identified in these cases, there is no doubt that the amount of time required for the violator to remedy the situation and for inspectors to follow-up will be greater.

During our audit, we wanted to make sure that the complaints and other reports filed with the boroughs were all promptly transferred to an inspector. We then assessed how thoroughly the audited boroughs and the Direction de l'habitation followed up with violators who received notices of non-compliance to ensure corrective action was taken and how consistently statements of violation were issued to uncooperative offenders.

To substantiate our findings, we chose a random sample of 10 cases from between 2008 and 2011 in each of the four audited boroughs, for a total of 40 cases. A random sample of 30 Direction de l'habitation cases processed between 2007 and 2011 was also chosen.

### **3.2.1. RESPONSE TIME FOR COMPLAINTS AND REPORTS RECEIVED BY THE BOROUGHS**

#### **3.2.1.A. Background and Findings**

Various factors can influence the prioritization of complaints and reports filed with the boroughs, including the degree of urgency of a situation with respect to occupants' health or safety. No matter what the nature of a report, however, we feel it must be addressed within a relatively short timeframe. We therefore analyzed the response time for complaints and reports received.

Our audit of the four selected boroughs showed that 90% (36/40) of the cases in our sample were assigned to an inspector within 2 to 15 days. Of the remaining 10% (4/40 cases), 2 cases (28 days and 114 days) were from Villeray–Saint-Michel–Parc-Extension borough, 1 case (105 days) from Le Sud-Ouest borough and 1 case (220 days) from Ville-Marie borough. According to the explanations we obtained, delays in assigning cases to an inspector were primarily attributable to staffing problems (high inspector turnover), where cases had to be reassigned to other inspectors.

Cases for which the response time was closer to the 15-day mark can be explained, or partially explained, by the fact that some boroughs have adopted an “express” system for processing complaints in situations where tenant health and safety risks are low (e.g., clutter problem, extermination required). Under this system, when a reported is received, the borough immediately issues a notice instructing the violator to perform the repairs required to comply with the By-law within a specified timeframe (generally 10 days). A copy of the notice is sent to the party that filed the complaint along with a reply card that can be returned to the borough if the matter is not resolved by the deadline. An inspector is assigned to a case only if the reply coupon is sent back. The advantage of this approach is that it prevents inspectors from being dispatched unnecessarily for unfounded complaints and encourages matters being settled without their involvement.

**Based on the results of our audit, we found that by and large the boroughs assigned incoming complaints and reports to an inspector within a reasonable timeframe, although in 10% of cases we found the response time to be excessive.**

For this aspect of the process, we obviously have no comments to make concerning the Direction de l’habitation since it only gets involved in cases where a formal memorandum of understanding has been signed with a borough for the systematic inspection of specifically identified buildings.

### **3.2.2. FOLLOW-UP FOR CASES ADMINISTERED BY THE BOROUGHS**

#### **3.2.2.A. Background and Findings**

Once a complaint or report is filed with a borough, one of two things can occur: either a systematic inspection is initiated, or the express process was put into motion, in which case an inspection will be carried out only if the party filing the complaint sends the reply card back indicating that the problem has not been resolved.

A notice of non-compliance will be issued once the required inspections have been performed, except if the report proves unfounded or if necessary corrective action has been taken. Based on our observations, these notices of non-compliance generally take

the form of a letter sent to the violator, accompanied by a list of the violations found on the premises. The notice clearly indicates the amount of time the violator has to take the necessary corrective action for each violation. Although each business unit has its own procedures and these timeframes may change, the length of time allotted is generally left to the discretion of the inspector, who will adjust it based on the urgency of the situation, the nature of the work to be carried out and the landlord's history. The information obtained from the business units we audited showed that these timeframes generally vary from 10 to 60 days. Immediate corrective action may be imposed, however, if the situation represents a health or safety hazard for tenants or the public.

The process entails issuing a notice of non-compliance rather than immediately serving a statement of violation. We observed that notices of non-compliance served violators clearly indicate that:

- The necessary corrective action to address the reported violations must be carried out by the specified deadline.
- Each violation of any provision in the By-law is subject to a fine of \$200 to \$10,000 in the case of an individual, and \$400 to \$20,000 in the case of a corporation.
- Failure to comply with the notice may result in legal proceedings being instigated against the violator without any further notice or delay.

We understand that this approach requires more thorough follow-up by the business units, not only to rectify substandard housing conditions promptly but also to avoid sending the message that a notice of non-compliance is not to be taken seriously because there will be no follow-up and, ultimately, no consequences for violators who do not respond by the specified deadline.

Our audit therefore examined how rigorous the follow-up was for notices of non-compliance if a violator does not adhere to the deadline determined following the initial inspection. In most cases, these follow-ups require the inspector to return to the premises (reinspection). However, in some situations, follow-up action may be carried out over the telephone (e.g., the party who filed the complaint confirms that the work has been done) or with documentation (e.g., invoices, contracts or other proof that the work has been done).

The findings for the cases in our sample from the audited boroughs are presented in Table 1.

**Table 1—Reported Cases and Response Time**

Borough	Number of cases for which a notice of non-compliance was not issued	Cases requiring a notice of non-compliance		Total number of cases audited
		1st reinspection or 1st follow-up action 15 days or less after the indicated deadline	1st reinspection or 1st follow-up action more than 15 days after the deadline	
Ville-Marie	6	4	0	10
Montréal-Nord	1	9	0	10
Le Sud-Ouest	2	4	4	10
Villeray–Saint-Michel–Parc-Extension	1	8	1	10
<b>Total</b>	<b>10</b>	<b>25</b>	<b>5</b>	<b>40</b>
<b>Percentage</b>	<b>25%</b>	<b>62%</b>	<b>13%</b>	<b>100%</b>

### **NOTICE OF NON-COMPLIANCE NOT ISSUED (10 CASES)**

Issuing notices of non-compliance was not required in these 10 cases because:

- The party who filed the complaint did not return the reply coupon sent out as part of the express treatment process (1 case: Ville-Marie).
- The complaint proved unfounded (2 cases: Ville-Marie and Villeray–Saint-Michel–Parc-Extension).
- The reported problem was resolved during the inspector’s follow-up (corrective action taken or supporting documents received) (6 cases: Ville-Marie and Le Sud-Ouest).
- A statement of violation was issued on the spot to the offender because of a long history of housing violations (1 case: Montréal-Nord).

### **NOTICE OF NON-COMPLIANCE ISSUED (30 CASES)**

Given the many variables that can have an impact on planning the issue of notices of non-compliance (e.g., high number of complaints and reports received, lack of access to

the premises to be inspected, staff turnover), we feel that a 15-day timeframe between the response deadline indicated on the notice and the date of the first reinspection or follow-up action (e.g., telephone call) is reasonable.

Moreover, the first follow-up action or reinspection in 25 of the 30 cases for which a notice of non-compliance was issued (out of a total of 40 in our sample) was performed fairly close to the initial deadline given to the violator to take the necessary corrective action, i.e., within 15 days. In the remaining 5 cases, however, no action was taken for over a month following the response deadline given to the violator, and in one case for close to 5 months. See Table 2 for details.

**Table 2—Cases Where the Time Between the Response Deadline and the First Follow-Up Action Exceeded One Month**

<b>Borough</b>	<b>Number of cases observed</b>	<b>Number of days between the response deadline and the 1st follow-up action</b>
Ville-Marie	0	–
Montréal-Nord	0	–
Le Sud-Ouest	4	35, 36, 65 and 147 days
Villeray–Saint-Michel–Parc-Extension	1	60 days
<b>Total</b>	<b>5</b>	

We found no notes in the file or any further explanations to justify the delays for these 5 cases, other than the fact that the deadline given to the violator to take the necessary corrective action (generally 10 days) may not have been realistic based on the nature of the problem.

It seems clear that putting a shorter response deadline in the notice of non-compliance may help exert pressure on the violator to take immediate action and address a problem situation. However, when these deadlines are not realistic given the nature of the corrective action required, this approach can have the opposite effect and undermine the credibility of the process. We therefore feel that it would be to the boroughs' advantage to adopt clear guidelines for inspectors on establishing reasonable deadlines.

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In addition, we noted that only 4<sup>12</sup> of the 30 cases were settled immediately following the first reinspection or first follow-up action by the inspector, and only 1 case, in the Villera y–Saint-Michel–Parc-Extension borough, resulted in a statement of violation. In other words, in the remaining 25 cases (30 – 4 – 1), the violator was not served with a statement of violation, despite the warning to this effect on the notice of non-compliance. We obtained a detailed breakdown of the number of statements of violation issued between 2007 and 2010 for each of the audited boroughs. This information is presented in Table 3.

**Table 3—Number of Statements of Violation Issued under the By-law**

<b>Borough</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>Total</b>
Ville-Marie	3	10	10	0	<b>23</b>
Montréal-Nord	39	31	11	10	<b>91</b>
Le Sud-Ouest	6	6	1	1	<b>14</b>
Villera y–Saint-Michel–Parc-Extension	21	13	29	15	<b>78</b>

This breakdown shows that the overall number of statements of violation issued by the audited boroughs over this four-year period is low. We also listed the number of new cases opened by the audited boroughs under the By-law for 2009 and 2010 to compare this figure with the number of statements of violation served. Our findings are presented in Table 4.

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<sup>12</sup> Ville-Marie (1 case), Montréal-Nord (1 case), Le Sud-Ouest (1 case) and Villera y–Saint-Michel–Parc-Extension (1 case).

**Table 4—Number of New Cases Opened Annually  
 Compared with Number of Statements of Violation Issued**

	Ville-Marie		Montréal-Nord		Le Sud-Ouest		Villeray–Saint-Michel–Parc-Extension	
	2009	2010	2009	2010	2009	2010	2009	2010
Number of new cases (complaints or reports) opened under the By-law	204	228	168	128	196	145	386	375
Percentage of statements of violation issued in relation to the number of new cases opened (complaints or reports <sup>13</sup> )	5%	0%	7%	8%	0.5%	0.7%	8%	4%

We found that when applying the By-law, the percentage of statements of violation issued in relation to the number of new cases opened is in fact very low. However, based on the information we obtained, it appears that the city’s business units favour an approach wherein they attempt to negotiate with a violator to bring about the necessary corrective action rather than immediately issuing a statement of violation.

We feel that this a worthwhile strategy, especially considering that going through the courts will not necessarily result in a faster resolution for tenants living in unsanitary or unsafe living conditions. Nevertheless, we feel a balance must be struck between the administrative efficiency of efforts required by city inspectors to convince landlords to take the corrective action required (e.g., the number of reinspections and other necessary follow-up actions) and an acceptable tolerance level for imposing the penalties provided for under the By-law. We therefore feel that the boroughs would be well advised to adopt guidelines inspectors can follow when deciding whether or not to issue a statement of violation.

For the 25 cases cited, inspectors were required to take further action to ensure the reported problems were addressed. Consequently, we took a more in-depth look at the length of time required to bring cases to a final resolution, as well as the nature of the extensions given by inspectors to violators at each step of the process.

<sup>13</sup> Based on the assumption that only one statement of violation is issued per complaint or report.

The time elapsed between the initial deadline indicated in the notice of non-compliance and the date the case for each of these 25 cases was eventually resolved is presented in Table 5.

**Table 5—Time Elapsed Between the Initial Deadline  
in the Notice of Non-Compliance and the Resolution Time**

<b>Borough</b>	<b>Less than 1 month</b>	<b>Between 1 and 3 months</b>	<b>Between 3 and 6 months</b>	<b>Between 6 and 12 months</b>	<b>More than 1 year</b>	<b>Total</b>
Ville-Marie	0	1	1	0	1	3
Montréal-Nord	1	3	2	2	0	8
Le Sud-Ouest	1	2	1	2	1	7
Villeray– Saint-Michel– Parc-Extension	3	2	2	0	0	7
<b>Total</b>	<b>5</b>	<b>8</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>25</b>

Our analysis reveals that the resolution time in nearly 50% (12/25) of these cases extended beyond three months and even past one year. For 2 of these 12 cases, however, the lengthy resolution times are partially attributable to delays in closing the file in the computer program, which needlessly adds to the total time. However, given that the reported problems involved unsanitary or unsafe housing conditions, we feel the delays for the remaining 40% (10/25) are abnormally long and could, in some instances, be detrimental to tenants' well-being.

According to the information we received from most of the people we interviewed, these weaknesses in the follow-up process may be explained in part by a high turnover rate among borough inspectors in recent years. These inspectors are responsible for enforcing a large number of by-laws (i.e., between 20 and 40 by-laws) for their business unit, which translates into a heavy workload and staff problems. As a result, new recruits do not necessarily receive adequate guidance and training.

A more in-depth analysis of each of these cases revealed several facts:

- For all of the cases we examined in the four audited boroughs, we almost never found evidence in the file concerning extensions granted to violators to take the necessary corrective action after each successive follow-up (e.g., reinspection).

Consequently, relatively long periods of time occasionally elapsed between two follow-up actions, without any justification.

- None of the boroughs we audited used management reports to assess and track the amount of time elapsed after a response deadline. We feel this type of tool would allow managers who oversee the process to more easily identify situations where follow-up is difficult and intervene more rapidly to ensure the necessary corrective action is taken. The *Gestion du territoire – Permis* program that records the details of the actions taken in each case has a [TRANSLATION] “scheduled” field that could be used to enter the next follow-up date after an established deadline (e.g., 30 days). We noted, however, that inspectors almost never complete this field, which makes it more difficult, and less transparent, to track the extensions they grant.
- As previously mentioned, we noted that several resolved cases were not promptly recorded as closed in the computer application. The resolution time indicated for these files therefore appears longer than it actually was. To avoid distorting the statistics on case resolution time, clear guidelines should be given to inspectors in this regard, and monitoring measures should be implemented to periodically check that cases are identified as closed in the computer application as soon as they have been resolved.

Finally, to return to the issue of the high turnover rate among inspectors assigned to this activity, we were informed that in December 2009 the boroughs had raised concerns with the SCH about the difficulty in retaining inspectors on their work teams and the negative repercussions of this situation, particularly in terms of heavier workloads and the need to constantly train new recruits. The discussions that ensued revealed that too many job categories in the “inspection” family (roughly 30) had been created over time, with the result that there are currently many similarities in the various positions from one borough to the next, although the corresponding pay scales and job descriptions are not necessarily on par. On top of this, the SCH has classified the position of building inspectors as a high-vulnerability job (e.g., due to retirements). The SCH therefore proposed a new job structure to the boroughs in October 2010 to reduce the number of categories in the “inspection” family from 30 to roughly 6. According to the information we obtained from the SCH, subsequent discussions were initiated with borough

representatives to reach agreement on the proposed position structure and salary levels. The matter was then put on the back burner for various reasons and not revived by the SCH until June 2011. The information we obtained from the SCH indicates that the matter is well on its way to being resolved. The executive in charge at the SCH has indicated that the next steps in implementing the proposed job structure are:

- Obtain support from all stakeholders for the job structure
- Draft the required job descriptions
- Determine the salary levels
- Submit the file to the Comité conjoint d'évaluation des emplois des cols blancs for approval (union and employer)

In our opinion, the changes in the “inspection” family job structure should help stabilize borough work teams and make workloads practicable. Considering that the matter is still pending after a little more than two years, we strongly urge the SCH to continue its efforts to hasten the process and adopt an action plan and implementation schedule to finalize the initiative.

#### **3.2.2.B. Recommendations**

**To improve support for enforcement activities and encourage violators to take prompt corrective action, we recommend that the Direction de l'aménagement urbain et des services aux entreprises in the boroughs of Ville-Marie, Montréal-Nord, Le Sud-Ouest and Villeray–Saint-Michel–Parc-Extension adopt clear guidelines that:**

- **help inspectors establish reasonable, realistic deadlines for corrective action**
- **determine the conditions under which issuing a statement of violation could represent a more effective solution than granting violators an extension**

**To avoid undermining the credibility of the notices of non-compliance served to violators and ensure thorough follow-up on the specified corrective action, we recommend that the Direction de l'aménagement urbain et des services aux entreprises in the boroughs of Ville-Marie, Montréal-Nord, Le Sud-Ouest and Villeray–Saint-Michel–Parc-Extension take the necessary measures to ensure inspectors follow up promptly when deadlines are not met by violators.**

To enable managers to monitor operations more closely and identify instances of insufficient follow-up, we also recommend that the Direction de l'aménagement urbain et des services aux entreprises in the boroughs of Ville-Marie, Montréal-Nord, Le Sud-Ouest and Villeray–Saint-Michel–Parc-Extension undertake the necessary measures to:

- encourage inspectors to use the designated computer program to record all information related to their activities and specifically details on extensions granted to violators to take the necessary corrective action
- encourage inspectors to enter the next follow-up date after an established deadline in the [TRANSLATION] “scheduled” field in the computer application
- stress to inspectors the importance of closing cases in the computer application as soon as possible after they are resolved to avoid distorting resolution times
- use management reports to assess and track the amount of actual time elapsed in relation to response deadlines granted to violators by inspectors

Finally, to promote stability within work teams in the relevant administrative units, we recommend that the Service du capital humain:

- continue its efforts to move forward with reforming the building inspection and permit delivery job structure
- adopt an action plan and an implementation schedule to finalize the initiative as soon as possible

### 3.2.2.C. Action Plans of the Relevant Business Unit

#### 1) • **VILLE-MARIE BOROUGH**

*[TRANSLATION] “Management will prepare and implement clear guidelines to help inspectors determine how much time to give violators to complete the required corrective action and when to issue a statement of violation. This will involve a chart for analyzing the factors involved (severity/impact of the case, tangible efforts made by the landlord, repeat violations).” (Planned completion: November 2012)*

- **MONTRÉAL-NORD BOROUGH**

[TRANSLATION] “The borough plans to prepare a set of guidelines and procedures on the enforcement of the By-law concerning the sanitation, maintenance and safety of dwelling units and update the inspector training program in this regard.

*We feel that the current approach to setting corrective action deadlines for violators is suitable. Clear guidelines will be drafted to ensure this practice is applied consistently to all violators.” (Planned completion: May 2012)*

- **LE SUD-OUEST BOROUGH**

[TRANSLATION] “Draft clear guidelines on inspection follow-up activities and strategies for legal action.

*Provide training to inspectors with regard to these guidelines and strategies.*

*Share information with other boroughs to identify best practices.” (Planned completion: November 2012)*

- **VILLERAY–SAINT-MICHEL–PARC-EXTENSION BOROUGH**

[TRANSLATION] “Draft administrative guidelines to categorize various timeframes for corrective action, depending on the nature of the problem and the scope of the work involved.

*The most commonly encountered situations over the past 12 months will be analyzed, and inspectors will be asked for critical assessment for determining the type of situation where statements of violation should be issued earlier in the enforcement process.” (Planned completion: June 2012)*

2) • **VILLE-MARIE BOROUGH**

[TRANSLATION] “The reference tables in the Gestion du territoire – Permis computer program (Oracle) will be changed to take into account the nature of a violation. A [TRANSLATION] ‘scheduled date’ field will need to be completed

for each violation-related follow-up, thereby making it possible to better administer deadlines specified by the inspector and manager and identify the target date for issuing a statement of violation.

The department head will monitor case loads, sorted by deadline and inspector, to ensure these guidelines are applied.” **(Planned completion: November 2012)**

- **MONTRÉAL-NORD BOROUGH**

[TRANSLATION] “Inspectors will receive supplemental training on the use of the Gestion du territoire system.

To make the statement of violation system more credible, the length of time involved in instituting legal proceedings must be reduced.” **(Planned completion: June 2012)**

- **LE SUD-OUEST BOROUGH**

[TRANSLATION] “Assess the possibility of improving inspectors’ productivity by providing them with electronic tablets so they can track and document their cases in the field using Oracle inspection grids. **(Planned completion: May 2013)**

Retrieve management data on unresolved housing cases on a weekly basis.” **(Planned completion: June 2012)**

- **VILLERAY–SAINT-MICHEL–PARC-EXTENSION BOROUGH**

[TRANSLATION] “Use the existing computer system to routinely enter response deadlines and available deadline reminder reports; hold a training and awareness session for employees. Draft administrative guidelines.” **(Planned completion: April 2012)**

3) • **VILLE-MARIE BOROUGH**

[TRANSLATION] “Inspectors will receive training to improve their documentation practices and provide them with guidelines on the type of content they are expected to provide.

A field indicating the date a statement of violation is received by the violator will be completed by a court bailiff communications clerk. Depending on the contents of the notice issued by the inspector, the information in this field will determine the target date for a subsequent inspection.

The Division des permis et des inspections will produce general housing inspection guidelines. It will emphasize the importance of closing cases in the computer program once the corrective action has been completed.” **(Planned completion: November 2012)**

• **MONTRÉAL-NORD BOROUGH**

[TRANSLATION] “Inspectors will receive supplemental training on the use of the management system.

Every inspection report will be checked by the manager to ensure the quality of both its contents and the proposed follow-up action.

The head of the Division des permis et des inspections will report to the director on a quarterly basis.” **(Planned completion: June 2012)**

• **LE SUD-OUEST BOROUGH**

[TRANSLATION] “Organize an advanced training session on the use of the Gestion du territoire database system with the other boroughs. **(Planned completion: December 2012)**

Assess the possibility of improving inspectors’ productivity by providing them with electronic tablets so they can track and document their cases in the field using Oracle inspection grids. **(Planned completion: May 2013)**

Retrieve and validate management data related to the follow-up of the cases administered by each inspector on a weekly basis.” **(Planned completion: June 2012)**

- **VILLERAY–SAINT-MICHEL–PARC-EXTENSION BOROUGH**

[TRANSLATION] “All of the points mentioned in this recommendation will be implemented with the inspection team, via training and guidelines, and checked on an individual basis by way of a quarterly report with the employees involved. **(Planned completion: May 2012)**

A meeting will be set up with the Service des technologies de l’information to modify the current computer system so that it can generate management reports that track deadlines issued to violators.” **(Planned completion: September 2012)**

4) • **SERVICE DU CAPITAL HUMAIN**

[TRANSLATION] “First, we would like to stress that the main purpose of the initiative to reform inspection positions is to reduce the number of white-collar jobs to simplify management and minimize internal transfers.

We believe that this reform may also help achieve your objectives of improving housing conditions in Montréal.

The next steps in this process:

- Make workplace observations. **(Planned completion: April 2012)**
- Prepare draft job descriptions. **(Planned completion: May 2012)**
- Have job descriptions approved by Inspections et permis division heads. **(Planned completion: May 2012)**
- Submit job descriptions to the Comité conjoint d’évaluation des cols blancs. **(Planned completion: June 2012)**
- Create jobs. **(Planned completion: July 2012)**
- Apply job descriptions.” **(Planned completion: August 2012)**

### 3.2.3. FOLLOW-UP FOR CASES ADMINISTERED BY THE DIRECTION DE L'HABITATION

#### 3.2.3.A. Background and Findings

Since implementation of the [TRANSLATION] *Action Plan to Improve Housing Safety* in 2007, Direction de l'habitation inspectors have stepped in to support the boroughs with inspections and follow-up for a series of specific buildings and dwellings identified and itemized in a memorandum of understanding with the boroughs.

Direction de l'habitation Inspectors follow the same procedures as their borough counterparts. If a violation of the By-law is found during a first inspection, the violator is served a notice of non-compliance (which includes a list of the violations observed and a deadline for addressing each). Inspectors subsequently follow up to ensure the necessary corrective action has been taken and, ultimately, a statement of violation is issued to uncooperative offenders. The specified timeframe for corrective action generally ranges from 30 to 60 days. Given the greater number of units in the buildings under the purview of the Direction de l'habitation (e.g., 24, 40, 62 and 72 dwellings), it is not uncommon for an inspector to visit the premises five times on average simply to determine the necessary corrective action to be taken, this does not include the subsequent inspections and follow-up to monitor the progress being made. At the time of our audit, there were nine inspectors on staff at the Direction de l'habitation to ensure the implementation of the [TRANSLATION] *Action Plan to Improve Housing Safety*. Unlike their borough counterparts, inspectors in this business unit are not responsible for enforcing any other municipal by-laws.

Information obtained at the end of July 2011 from the Direction de l'habitation indicated that it signed a memorandum of understanding with 14 of the 19 boroughs to assume responsibility for certain non-compliant buildings within their jurisdictions.

An overview of inspection activities conducted by the Direction de l'habitation to implement the [TRANSLATION] *Action Plan to Improve Housing Safety*, up until the end of July 2011, is presented in Table 6.

**Table 6—Annual Overview of Division de la Salubrité Activities to Implement the [TRANSLATION] *Action Plan to Improve Housing Safety***

	2007*	2008	2009	2010	2011#	Total
Number of buildings	52	114	258	110	47	<b>581</b>
Number of units inspected in these buildings	1,197	2,000	3,298	2,999	1,093	<b>10,587</b>
Number of violations reported	10,364	16,369	17,642	14,827	3,596	<b>62,798</b>
Number of statements of violation issued	482	1,306	151	352	204	<b>2,495</b>

\* Figures for the last six months of 2007 (action plan came into effect in July 2007).

# Figures for the first seventh months of 2011 (January 1 to July 31).

Although we know now that actions related to the [TRANSLATION] *Action Plan to Improve Housing Safety* will continue over the coming years, the above information shows that the original goal, which was to inspect 10,000 units during the initial three-year period of the action plan (July 2007 to July 2010), was achieved and even exceeded during the first seven months of 2011.

As for the 2,495 statements of violation issued between July 2007 and July 2011, a cursory review shows that they were limited to 104 (18%) of the 581 buildings inspected by the Direction de l'habitation. Using an approach similar to that of the boroughs, the Direction de l'habitation prefers negotiating the implementation of corrective action with violators. As long as violators remain cooperative and the percentage of corrective action taken increases, inspectors tend to grant extensions rather than initiate penal procedures that could interrupt or stall work.

As for the Direction de l'habitation's follow-up of their cases, we substantiated our findings concerning the 30 buildings in our sample by reviewing two key factors. First, as we did in the boroughs, we examined how promptly and thoroughly inspectors followed up on notices of non-compliance once the deadlines for corrective action set after the initial inspection had passed. Second, we reviewed subsequent follow-up action taken and the amount of time elapsed between the deadlines initially indicated in the notice of non-compliance and the resolution of the case as of August 29, 2011, just before our audit wrapped up. The results of our analyses are presented below.

### **FOLLOW-UP ON NOTICES OF NON-COMPLIANCE AFTER INITIAL RESPONSE DEADLINES**

In 15 of the 30 cases in our sample, the violations identified were addressed and the cases resolved at the time of our audit. The cases for the other 15 buildings were still active. The proportion of violations addressed to violations reported as of August 29, 2011 varied from case to case, ranging between 2.6% and 96.3%. In more specific terms, for 11 out of 15 buildings, more than 65% of the reported violations were addressed.

Given that the notices of non-compliance in our sample showed a rather high number of reported contraventions (between 15 and 822) and that different deadlines can be applied to each deficiency depending on the scope of the corrective action required, we chose to focus our analysis on the longest deadline, i.e., 60 days. Consequently, for the purpose of assessing the promptness of inspectors' follow-up after the initial response deadline in a notice of non-compliance has passed, we considered that a 15-day timeframe between the end of the 60-day deadline and the first follow-up action was reasonable.

**Table 7—Time Elapsed Between Violators' Initial Deadline and Inspectors' First Follow-Up**

<b>First follow-up action taken in response to the notice of non-compliance</b>	<b>Active cases</b>	<b>Resolved cases</b>	<b>Total</b>
Within 15 days following the 60-day deadline	8	9	17
More than 15 days following the 60-day deadline	7	6	13
<b>Total</b>	<b>15</b>	<b>15</b>	<b>30</b>

We therefore observed that slightly more than half of the cases we reviewed, or 57% (17/30), were followed up within 15 days after the 60-day deadline had passed. The first follow-up action for the other 43% (13/30) was carried out by the inspector more than 15 days after the specified deadline. For all but 2 of the 13 buildings, for which the first follow-ups took place on the 17th and 18th day following the 60-day deadline, it took a considerably longer time to follow up on the reported violations: in 5 cases, the first follow-up took place between 33 and 44 days following the initial 60-day deadline; in another 5 cases, the first follow-up took place between 88 and 94 days; and in 1 case,

the delay was 256 days. We feel these initial follow-up times are long, and it was difficult, or even impossible, to confirm the exact reasons for the follow-up delays, because these details were not documented in the *Gestion du territoire – Permis* application. However, based on the information obtained from the manager responsible for this activity at the Direction de l'habitation, some of these delays were exacerbated by a variety of factors, including the departure of an inspector assigned to a case prior to its resolution, the initiation of administrative procedures to obtain a building renovation subsidy and logistical considerations that led to the postponement of required reinspections in cases where one landlord had received notices of non-compliance for more than one building. The aforementioned 256-day response time arose as a result of this latter situation. In this particular instance, the landlord in question owned four buildings in the same neighbourhood, all of which had been identified under the [TRANSLATION] *Action Plan to Improve Housing Safety*. An agreement was worked out to perform the corresponding reinspections in a sequential manner (one building at a time), and the building in our sample was last in the series.

**TIME ELAPSED BETWEEN THE INITIAL NOTICE OF NON-COMPLIANCE DEADLINE AND CASE RESOLUTION**

**Table 8—Time Elapsed Between the Initial Notice of Non-Compliance Deadline and Resolution**

Length of time	Active cases	Resolved cases	Total
0–3 months	0	4	4
3–6 months	0	2	2
6–9 months	3	2	5
9–12 months	3	2	5
12–18 months	4	1	5
18–24 months	2	0	2
24–36 months	3	4	7
<b>Total</b>	<b>15</b>	<b>15</b>	<b>30</b>
	<b>30</b>		

We continued our analysis with a review of the subsequent follow-up actions taken and the time elapsed between the initial deadline specified in the notice of non-compliance

and the resolution of the case, as of August 29, 2011, just before our audit wrapped up. To reiterate, our analysis focused on resolution times for notices of non-compliance with the longest response deadline (i.e., 60 days).

Our findings showed that, in 80% (24/30) of the cases we examined, the resolution time following the initial 60-day deadline exceeded six months. We appreciate that the level of complexity of certain cases (e.g., a large number of dwellings to be inspected, high number of violations reported) may require a considerable amount of time for inspectors to address—up to 12 months in some instances. However, we noted in a significant percentage of cases, i.e., 47% (14/30), the resolution time following the initial 60-day deadline exceeded 12 months:

- In five cases, the resolution time was between 12 and 18 months. Based on our observations, apart from two cases where various extension requests were granted, the other three cases can be explained as follows: one of the buildings had been accepted for a subsidy under the Major Residential Renovation Program, and the two others, both owned by the same landlord, were given an extension following a decision made by the inspector to allow the landlord to carry out the necessary corrective action in one building at a time.
- The resolution time for two cases ranged from 18 to 24 months. In one case, the delays were attributable to the initiation of municipal court proceedings. In the other, the delay was exacerbated by various circumstances beyond the control of the Direction de l'habitation, including administrative delays while waiting for a response to a landlord's application for a renovation subsidy, which was ultimately rejected; the time required by the landlord to obtain bids for large-scale projects; and delays caused by the departure of inspectors and the resulting increase in workload for the inspector assigned to the cases.
- The resolution time for seven cases extended beyond 24 months, even up to 36 months. Based on the information we obtained, these delays can be explained as follows: criminal proceedings were launched against one building in municipal court; two buildings applied for subsidies under the Major Residential Renovation Program; and four buildings applied for assistance under the Renovation *à la carte* program. Both of these programs are administered by the Direction de l'habitation.

In the cases of buildings that received renovation subsidies, the Division de la salubrité was justified in temporarily suspending follow-up procedures for notices of non-compliance while the renovations were being carried out by a third party (e.g., the Division de la gestion des programmes de logement abordable et privé of the Direction de l'habitation or a borough). It would then return when renovations were complete to ascertain that all instances of non-compliance had been corrected. It is also important to point out that dwellings may need to be vacated in some cases, depending on the scope of the required renovations, to protect tenants from harm.

All in all, given the explanations provided and the unique nature and scope of the tasks required of Direction de l'habitation inspectors, we feel it is difficult to judge whether or not the time required to resolve these cases can be considered reasonable. However, in light of our review of the files and information obtained from the people we interviewed, we feel that certain improvements could be made to the process. Our observations in this regard are as follows:

- In a few cases, some follow-ups by inspectors were not recorded in the *Gestion du territoire – Permis* application. In others, actions were recorded but inadequately described (e.g., identified as information obtained rather than details from an on-site inspection). Moreover, although the [TRANSLATION] “scheduled” field in the computer application can be used to enter the date of the next follow-up action required after a specified deadline (e.g., 30 days), we observed that this field was sometimes left blank. We therefore have no evidence in the file of extensions granted to violators to perform the required corrective action following each of the inspector’s follow-up actions (e.g., reinspections). We also noted that there were sometimes relatively long delays between follow-up actions with no reason provided. This lack of rigour affecting the information in the file makes follow-up more difficult for new inspectors subsequently assigned to a case and for the managers who oversee these activities. These omissions and record-keeping mistakes may also distort information contained in management reports generated by this computer program.
- Similar to what we observed in the boroughs, the Direction de l'habitation manager responsible for this activity does not have access to any management reports to help assess and track the length of response time that follows a given deadline. We

feel this type of tool would make it easier to identify situations where follow-up problems exist and react more rapidly to ensure the necessary corrective action is taken.

### **3.2.3.B. Recommendations**

To avoid undermining the credibility of the notices of non-compliance served to violators and ensure thorough follow-up on the specified corrective action, we recommend that the Division de la salubrité take the measures required to ensure inspectors follow up promptly when deadlines are not met by violators.

To help managers who oversee enforcement activities monitor operations more closely and identify instances of insufficient follow-up, we recommend that the Division de la salubrité take the necessary actions to:

- encourage inspectors to enter sufficiently detailed information on their activities in the computer application they are using
- encourage inspectors to enter the next follow-up date after a deadline established with the offender in the [TRANSLATION] “scheduled” field in the computer application
- use management reports to assess and track the amount of time that passes after a response deadline granted to a violator by an inspector

### **3.2.3.C. Actions Plans of the Relevant Business Unit**

[TRANSLATION] *“Provide inspectors with specific instructions to ensure their first follow-up inspection is carried out within 15 days after the longest deadline indicated in the notice of non-compliance has passed.*

*Develop a weekly computer report to indicate when deadlines have recently expired and adjust the inspection calendar accordingly.” (Planned completion: March 2012)*

*“Provide inspectors with specific instructions to:*

- *Document every action and piece of information involved in a case in a comprehensive and comprehensible way.*

- *Ensure that the dates associated with each new deadline are entered into the appropriate field. (Planned completion: March 2012)*

*Perform random quality checks on the information on file (on a monthly basis, for example). (Planned completion: March 2012)*

*Produce management reports that keep track of projects for which the deadline granted to landlords by inspectors has passed (check related IT needs while project is underway).” (Planned completion: June 2012)*

### 3.3. OBJECTIVES, PERFORMANCE INDICATORS AND REPORTING

#### 3.3.A. Background and Findings

To assess and eventually report the extent to which By-law enforcement efforts meet city administration orientations, it is important to define clear and measurable objectives that can easily be tracked using performance indicators. Management reports must incorporate this information.

Part of our audit included reviewing the objectives that the four boroughs and the Direction de l'habitation had set to assess the effectiveness of By-law enforcement activities. We questioned the managers responsible for these activities and consulted various sources of information, including annual activity reports and budget support documents. Tables 9 and 10 summarize the main formally defined goals that we were able to identify in connection with these activities.

**Table 9—Borough By-law Enforcement Objectives**

Borough	Objective
<b>Ville-Marie</b>	No formally defined objectives
<b>Villeray–Saint-Michel–Parc-Extension</b>	Finalizing implementation of the inspection structure
<b>Montréal-Nord and Le Sud-Ouest</b>	<p><b>General objectives</b></p> <ul style="list-style-type: none"> <li>• Continually improve working arrangements to ensure cases are effectively processed and followed up diligently</li> <li>• Continue developing communication tools to promote improved visibility and awareness of the By-law.</li> </ul> <p><b>Sub-objectives</b></p> <ul style="list-style-type: none"> <li>• Introduce By-law enforcement procedures and tools (guidelines, improved form letters, etc.) (Montréal-Nord)</li> <li>• Implement procedures and management tools to follow up on statements of violation (Le Sud-Ouest)</li> <li>• Incorporate management tools into the follow-up process</li> <li>• Provide more support to inspectors in the execution of their duties</li> <li>• Deliver quality customer service within reasonable timeframes</li> <li>• Monitor entries in the <i>GDC*</i> and <i>Gestion du territoire – Permis</i> on an ongoing basis</li> <li>• Update the website</li> </ul>

\* GDC: [TRANSLATION] Client request management.

We noted that the Ville-Marie borough had not defined any specific performance measurement objectives for this activity. Based on information obtained from the manager in charge, most reporting is done through regular meetings between inspectors and management. Any problems encountered are discussed at these meetings, and verbal instructions may be given, although there is no subsequent evaluation. The only enforcement-related information contained in the annual budget presentation and activity report process is the total number of inspections carried out. There are no comparisons with results from previous years or established objectives or targets. We feel that this type of information is decidedly insufficient in making informed decisions about the corrective action to be taken.

A similar situation was observed in the Villeray–Saint-Michel–Parc-Extension borough, where, although it is commendable, only one objective was identified. The target of this objective is vague, making it difficult to measure the success level. In addition, as was also the case in the Ville-Marie borough, reporting is done verbally during regular meetings, and annual budget support documents focus almost exclusively on

production units, i.e., the number of housing units inspected, the number of notices of non-compliance issued and the number of statements of violation issued. These findings are not compared with previous years' results or target objectives.

Montréal-Nord and Le Sud-Ouest goals are more structured and we feel they address the main problems involved to improve the performance of these activities. However, they are stated in non-measurable terms. We recommend that specific targets be incorporated so that the degree of success can be clearly measured and tracked on a comparative basis. As an example, the sub-objective "Deliver quality customer service within reasonable timeframes," could be given measurable objectives such as:

- Ensure incoming complaints and reports are assigned to an inspector within X hours
- Ensure reinspections are carried out within X weeks following the deadline for a violator to take the necessary corrective action
- Ensure instances of observed non-compliance are resolved within X days

Additionally, in our analysis of annual activity reports, we found it difficult to reconcile the achievements they contain with established objectives. Specifically as regards inspection activities, they feature information of a general nature (e.g., job appointments of inspectors and other staff, support for professional development activities, computer system upgrades), as well as a compilation of the number of reports processed during the year.

As was the case for the Ville-Marie and Villeray–Saint-Michel–Parc-Extension boroughs, the information obtained from the managers we interviewed in these two boroughs confirms that reporting is also verbal and delivered during regular meetings between inspectors and management.

Overall, we feel that the boroughs should put increased effort, to varying degrees, into setting measurable objectives and defining corresponding performance indicators to make it possible to report regularly on By-law enforcement performance and the extent to which these activities help achieve city administration priorities.

As for the Direction de l'habitation, which carries out systematic inspections of buildings for which there is a memorandum of understanding in place with a borough under the [TRANSLATION] *Action Plan to Improve Housing Safety* (adopted in July 2007), our audit identified the objectives outlined Table 10.

**Table 10—Objectives of the Direction de l'Habitation  
Regarding the Application of the By-law and the Implementation  
of the [TRANSLATION] *Action Plan to Improve Housing Safety***

Business unit	Objectives
<b>Direction de l'habitation</b>	<p><b>2008</b></p> <ul style="list-style-type: none"> <li>• Sign memoranda of understanding with at least five boroughs and inspect at least 3,000 dwellings under the [TRANSLATION] <i>Action Plan to Improve Housing Safety</i> (target: 10,000 dwellings inspected in three years)</li> </ul> <p><b>2009</b></p> <ul style="list-style-type: none"> <li>• Inspect at least 3,000 new dwellings under the [TRANSLATION] <i>Action Plan to Improve Housing Safety</i></li> </ul> <p><b>2010</b></p> <ul style="list-style-type: none"> <li>• Provide the boroughs concerned with services as stipulated in the [TRANSLATION] <i>Three-Year Plan to Improve Substandard Housing</i>: <ul style="list-style-type: none"> <li>– Inspect all dwellings for which a memorandum of understanding was signed between a borough and the Direction de l'habitation in 2010 (target: 3 000 dwellings) and perform reinspections where necessary</li> <li>– Issue notices of non-compliance and statements of violation</li> </ul> </li> </ul> <p><b>2011</b></p> <ul style="list-style-type: none"> <li>• Provide the boroughs concerned with the services outlined in the [TRANSLATION] <i>Plan to Improve Substandard Housing</i>: <ul style="list-style-type: none"> <li>– Inspect all dwellings for which a memorandum of understanding was signed between a borough and the Direction de l'habitation in 2011 and perform reinspections where necessary (target: 2,000 additional dwellings inspected in addition to reinspections and follow-up actions, total for 2011–2013: 6,000 inspections)</li> <li>– Issue notices of non-compliance and statements of violation</li> <li>– Where appropriate, coordinate work in lieu of the landlord</li> </ul> </li> </ul>

The Direction de l'habitation has therefore defined its main objectives in line with its responsibilities. These objectives are expressed in measurable terms in the memoranda of understanding to be signed with the boroughs and the number of dwellings to be inspected during the year. We feel that these objectives are appropriate and make it possible to measure the consistency between the actions taken and the action plan and report on the outcome. However, we feel that other measurable objectives could be

incorporated to further expand reporting practices and better track the performance of the Direction de l'habitation, for example:

- Carry out the initial inspection of all dwellings in a building within X days, depending on the housing category (e.g., 8 dwellings, 24+ dwellings)
- Resolve reported violations within X days
- Correct X% of all reported violations every year

Information obtained from the head of the division in charge of these activities confirmed that reporting is an annual exercise performed during the budget preparation process. Our analysis of these documents for 2009, 2010 and 2011 led us to observe that the Direction de l'habitation reports on its achievements based on the main objectives listed in Table 10. In addition, as part of routine operations, the head of the division mentioned that he regularly meets with the inspectors under his supervision and meets monthly with the director of the Direction de l'habitation to discuss the status of various cases and any problems that have been encountered.

Since the adoption of the *By-law concerning the sanitation, maintenance and safety of dwelling units* in 2003 was one of the orientations and the strategy recommended by the city administration to improve Montréalers' habitat and living environment, it is important that a broader reporting system be put into place to keep the relevant authorities informed of the resulting outcomes.

As previously mentioned in this report, three years after the By-law was adopted, the city administration sought to assess its impact. As a result, the SMVTP issued a report on By-law enforcement activities from 2003 to 2006 in October 2006. This report was subsequently submitted to a standing committee for a public study.<sup>14</sup> During the subsequent public hearings, stakeholders asked for clarifications and additional information on aspects that had not been addressed in the report and that were deemed important to assess the activities, including:

- number and nature of enforcement activities in each borough
- number of inspectors and their mandates

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<sup>14</sup> Commission permanente du conseil municipal sur la mise en valeur du territoire, l'aménagement urbain et le transport collectif (known now as the « Commission sur le développement économique et urbain et l'habitation »).

- variance between the number of notices of non-compliance issued and the number of statements of violation issued
- municipal court statistics on By-law enforcement
- number of convictions and the amount of corresponding fines

The SMVTP therefore had to compile the missing data and respond in writing to the questions raised by stakeholders and committee members.

To follow up on the 16 recommendations made by the committee as a result of the 2006 public hearings, the SMVTP issued a second report in May 2009 on the actions taken since 2006. This report, which was also the subject of a public hearing by the committee, addressed all of the recommendations made by the committee and focused specifically on the actions of the Direction de l'habitation to implement the [TRANSLATION] *Action Plan to Improve Housing Safety*. However, the report did not touch on the boroughs' performance in applying the By-law.

We noted that the few statistics contained in both reports were not presented on a comparative basis from year to year, and there was not attempt to analyze any variances. We feel that a comparison of recent and past results would be useful for decision-making, in that it would help determine whether performance levels are stable, improving or declining. In our opinion, the information included in the reports was not sufficient to accurately assess the performance of By-law enforcement activities. Moreover, the managers we interviewed indicated that there had been no further reports on the application of the By-law.

Given that the responsibility of enforcing the By-law is shared by the 19 boroughs and one central business unit, we understand that achieving the city administration's objectives in this regard requires a coordinated combined effort. We noted, however, that no business unit has been formally assigned the task of coordinating overall reporting on a regular basis to brief the city administration on the status of the By-law enforcement activities of all business units concerned. We feel that the reporting frequency should also be defined in advance.

### 3.3.B. Recommendations

To assess the performance of the business units in applying the *By-law concerning the sanitation, maintenance and safety of dwelling units*, we recommend that the Direction de l'aménagement urbain et des services aux entreprises of the boroughs of Ville-Marie, Montréal-Nord, Le Sud-Ouest and Villeray–Saint-Michel–Parc-Extension:

- set specific objectives, using measurable terms and supported by performance indicators
- report regularly on the results for each of these objectives to assess and compare changes in the situation over time so that informed decisions about corrective measures can be made

For the same reasons, we recommend that the Division de la salubrité:

- add specific, measurable performance objectives to existing objectives for inspectors' activities
- report regularly on the results for each of these objectives to assess and compare changes in the situation over time so that informed decisions about corrective measures can be made

We also recommend that the Direction générale:

- formally designate a business unit to report to the Direction générale on the status of activities related to the application of the *By-law concerning the sanitation, maintenance and safety of dwelling units*
- specify, where appropriate, the anticipated frequency of these reports

### 3.3.C. Action Plans of the Relevant Business Unit

#### 1) • *VILLE-MARIE BOROUGH*

*[TRANSLATION] "In 2011, 70% of housing cases were resolved. The target in 2012 will be 75%. Performance will be monitored on a monthly basis. If the target is not met, additional resources may be assigned. (Planned completion: December 2013)*

*The annual activity report already produced by management will be adjusted to include this performance with a greater degree of precision.” (Planned completion: March 2014)*

- **MONTRÉAL-NORD BOROUGH**

*[TRANSLATION] “An annual inspection program will be prepared and incorporated into inspectors’ duties. Under this program, each inspector will have a specific number of inspections to perform. An inspection plan including details on all the elements to be verified will be prepared, and a form will have to be filled out for each inspection.*

*A quarterly report will be prepared and submitted to the manager. The report will constitute a recurring item on management committee agendas.” (Planned completion: September 2012)*

- **LE SUD-OUEST BOROUGH**

*[TRANSLATION] “Produce an annual report on housing conditions and unresolved sanitation issues in the borough.*

*Develop a more detailed management score card monitor housing conditions.*

*Set achievable housing inspection goals.” (Planned completion: December 2012)*

- **VILLERAY–SAINT-MICHEL–PARC-EXTENSION BOROUGH**

*[TRANSLATION] “Performance indicators will focus on the following aspects:*

- *number of dwelling units inspected*
- *response time to complaints*
- *location of inspected dwelling units*
- *year of construction of inspected dwelling units*
- *type of buildings inspected (multiresidential property, apartment building, etc.)*

- *type of by-law violation*
- *number of reports filed that have resulted in legal proceedings.*

*A report will be produced twice a year measuring each of these performance indicators. The report will be reviewed with borough management and made available to the borough's elected officials." (Planned completion: December 2012)*

2) • **DIVISION DE LA SALUBRITÉ DE LA DIRECTION DE L'HABITATION OF THE SERVICE DU DÉVELOPPEMENT ET DES OPÉRATIONS**

*[TRANSLATION] "Set a time limit for follow-up inspections after the longest deadline indicated in the notice of non-compliance has expired. (Planned completion: March 2012)*

*Add the following to existing reports:*

- *monthly reports on the time elapsed between the expiry of the longest deadline and the date of the first follow-up inspection*
- *a recurring report tracking the time required to complete the necessary corrective action in each case of non-compliance" (Planned completion: June 2012)*

3) • **DIRECTION GÉNÉRALE**

*[TRANSLATION] "The Direction de l'habitation will look into potential solutions with the units involved and propose the best approach for implementing the recommendation." (Planned completion: June 2012)*

#### 4. APPENDIX

##### 4.1. COMPARATIVE ANALYSIS OF ENFORCEMENT STRATEGIES ADOPTED BY VARIOUS NORTH AMERICAN CITIES

Table A—Enforcement Strategies Adopted by Six North American Cities

City	Enforcement strategy	Enforcement mechanisms	Fees	Funding Sources
<b>Los Angeles</b>	Systematic inspections every four years for rental properties with more than two units	The city can seize up to 50% of rental income in properties where landlords fail to complete designated repairs. The percentage is based on the number of violations of minimum living standards.	Landlords pay a \$35 inspection fee per rental unit per year.  Any subsequent reinspection is subject to a fee of \$170, plus a \$36 administrative fee.	The fees cover the entire cost of the enforcement strategy.
<b>New York</b>	Inspections in response to complaints and preventive inspections in selected apartment buildings	Failure to comply with city by-laws may result in prosecution, fines or prison. The city may carry out urgent repairs at the landlord's expense.	Landlords are charged a \$200 inspection fee.  Subsequent reinspections are subject to a \$100 fee.  Uncooperative landlords are charged a fee of \$500 per rental unit every six months, up to a maximum of \$1,000, until the required corrective action is taken.	The fees cover the entire cost of the enforcement strategy.
<b>Boston</b>	Permits required for all rental units  Mandatory inspections whenever there is a change in tenants	Non-compliance may result in revocation of the permit and a fine. Properties without permits cannot be rented.	Inspection fees of \$50 to \$75 per rental unit are charged to the landlord.	The fees cover the entire cost of the enforcement strategy.

**V. Value-for-Money and Information Technology Audit**  
**V.2. Application of the *By-law Concerning the Sanitation, Maintenance and Safety of Dwelling Units***

<b>City</b>	<b>Enforcement strategy</b>	<b>Enforcement mechanisms</b>	<b>Fees</b>	<b>Funding Sources</b>
<b>Vancouver</b>	Permits required for all rental units	Non-compliance may result in revocation of the permit and a fine. Properties without a permit cannot be rented.	\$50 processing fee and \$60 annual permit fee per unit.  \$55 annual license renewal fee per unit.	The fees cover the entire cost of the enforcement strategy.
<b>Toronto</b>	Inspections in response to complaints and preventive inspections in selected apartment buildings	Non-compliance may result in prosecution or fines. The city may carry out urgent repairs at the landlord's expense.	Fees charged for follow-up on non-compliance.  Reinspection fee: \$94 for the first hour and \$55 for each additional hour.	The fees defray a part of the cost of the enforcement strategy.
<b>Montréal</b>	Inspections are carried out in response to complaints or reports	Non-compliance may result in prosecution or fines. The city may carry out urgent repairs at the landlord's expense.	N/A	The enforcement strategy is funded by the city budget.



# V.3. Cost Estimates



**Vérificateur général**  
de la Ville de Montréal



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## LIST OF ACRONYMS

CTA	<i>Cities and Towns Act</i>	GDD	decision-making record management system
DCRT	Division conception et réalisation des travaux	SDO	Service du développement et des opérations
DEC	Division de l'estimation des coûts	SEAO	electronic tendering system
DGPRA	Division gestion des projects et relations d'affaires	TCEP	three-year capital expenditures program
DTP	Direction des travaux publics	WRF	work request form

## V.3. COST ESTIMATES

### 1. INTRODUCTION

Every year, the Ville de Montréal (the city) makes substantial investments to improve and rehabilitate its road and underground infrastructures (e.g., water and sewer networks). The three-year capital expenditures program (TCEP) provides for substantial investments in this area—\$456 million<sup>1</sup> for 2010, \$721 million<sup>2</sup> for 2011, \$843 million<sup>2</sup> for 2012 and \$812 million<sup>2</sup> for 2013—which are distributed among the central departments and boroughs in accordance with their respective jurisdictions. Since the city does not have the necessary resources and equipment to complete the work planned, this work is generally outsourced to outside contractors that specialize in the field. For some types of work (e.g., road rehabilitation programs, water mains, bicycle paths), central department business units and some boroughs designate the Direction des travaux publics (DTP) of the Service du développement et des opérations (SDO) as internal municipal engineering consulting services.

The function of the DTP is to design, implement and manage city infrastructure projects. Its teams develop innovative ways to carry out infrastructure repair projects, in the best conditions and at the most favourable costs, in order to extend their service life and ensure the protection and entirety of the city's public and private property.

In the course of designing infrastructure projects, the DTP is amongst other things responsible for preparing plans and specifications and managing the awarding of contracts to contractors. In accordance with the *Cities and Towns Act* (CTA), this contract work is awarded to the lowest compliant bidder, generally following public calls for tenders.

When the tenders are analyzed, the DTP must have a detailed cost estimate to judge whether the bids are reasonable. In a context where financial resources are limited compared to the extent of investment needs, it is essential that cost estimates be

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<sup>1</sup> TCEP 2010-2012.

<sup>2</sup> TCEP 2011-2013.

reliable at the time contracts are awarded so that authorities can be assured that the city is paying a fair price for the work requested. Reliable cost estimates are also needed to obtain conclusive results when they are compared with actual costs once the work is completed.

During an audit conducted in 2006 in the city's boroughs, we reviewed cost estimates. One of our recommendations was that mechanisms be established for monitoring the prices submitted from time to time in order to have a reasonable degree of assurance that they effectively correspond to the best possible prices.

Moreover, during a 2009 audit of professional contracts management, we had recommended that the Direction générale assess the possibility of forming a team of independent cost estimating experts to ensure that it obtains the best prices for services requested. We had also recommended that the Direction review the extent of responsibilities assigned to outside firms to determine which duties it should reclaim and manage.

In 2010, the municipal administration made its intentions known in this regard. In April 2010, city council adopted a governance framework to consolidate internal municipal expertise, particularly in the areas of cost estimating, project management and work-site supervision. It also provided for third parties, other than those that had prepared the calls for tenders and detailed cost estimates, to draw up control estimates in order to check the prices in bids during the tendering process for all public works projects and complex or high-risk projects. However, other possibilities could be considered as long as the process remains independent.

Since 2010, the DTP has been working to put into place a new business model foreseeing amongst other thing, the creation of an independent cost-estimating unit. From March 2010 to August 2011, until the positions are filled, the DTP entrusted to a firm of construction economists the preparation of detailed control estimates. Although the DTP is currently going through a period of major change in work organization, we believe the timing is right for us to conduct an audit on this important issue to assess the reliability of the detailed cost estimates produced. We believe that the observations and

recommendations in this report will help improve the DTP's cost estimating process, and that it might inspire other business units to improve their management practices.

## **2. AUDIT SCOPE**

The main purpose of our audit was to ensure that the detailed cost estimates used for projects were reliable. For this purpose, we reviewed the establishment of cost estimates produced by both the DTP and by a firm specializing in detailed control estimates. We also compared these estimates with the bids received and their publication in the electronic tendering system (SEAO). Finally, we addressed the DTP's position with respect to a cost estimating methodology.

We began our audit of the DTP of the SDO in the spring of 2011, focusing on the detailed cost estimates that were used when public calls for tenders were issued for awarding project contracts. We selected 11 files taken from public calls for tenders issued throughout 2010 and the first two months of 2011. The estimates involved work of three different types: pavement and sidewalks, sewers and water mains and bicycle paths. The size of the contracts ranged from \$0.3 million to \$2.2 million. Our audit also took into account information that was sent or communicated to us up to August 22, 2011.

We also conducted comparative analyses of the detailed estimates produced internally and the detailed control estimates with the bids received. The period covered for these analyses was from January 1, 2010 to August 22, 2011.

Note that our audit did not cover cost estimates prepared by the DTP for professional service contracts or the cost estimates that boroughs used when contracts were awarded.

## **3. FINDINGS, RECOMMENDATIONS AND ACTION PLANS**

Despite the large number of infrastructure rehabilitation projects under way in the city, business units have limited means to carry them out given their restricted budgets.

These projects mobilize a large number of market resources, such as contractors, suppliers, labour, materials, etc. It therefore becomes necessary to determine exactly what types of work need to be done and to establish target prices that help contain the risk of overbidding when the market is contacted. It also becomes necessary for the city to make optimum use of its resources in order to obtain the best return on its investment.

A detailed cost estimate is very useful for decision-making before contractors begin a project. First, it is expected to reassure the requesting body that its project is still feasible, given the projected budget. Second, it must make it possible to judge the reasonableness of the bids received when public calls for tenders are issued. Third, it must support the recommendation of awarding the contract to the lowest compliant bidder for the project.

Given the scope of the decisions made, it is understandable that a great deal of importance must be attached to the reliability of these estimates. It is obvious that an unreliable cost estimate would not be conducive to informed decision-making. For example, it would not be possible to optimize work planning when selecting projects. Furthermore, when the bids received are analyzed, erroneous variances could be observed, which would make it impossible to adequately support recommendations to award contracts. It is essential that the detailed estimates be reliable, so that the results when compared with actual costs once the work is completed are conclusive.

In addition to all these measures promoting the reliability of cost estimates, since April 1, 2011, the city has been required to publish a list of contracts over \$25,000, as well as a price estimate of any contract of \$100,000 or more on the SEAO website (sections 477.4 and 477.5 of the CTA). The DTP is not exempt from these rules, since most projects it receives involve capital expenditures of over \$100,000. The amount of cost estimates published in the SEAO must be reliable, because this information is now easily accessible on the Internet.

In April 2011, the DTP presented its tendering process to the Commission d'examen des contrats. This process referred to the preparation of two detailed cost estimates

produced on two different occasions by two separate divisions and according to different methods. The first, produced by the Division conception et réalisation des travaux (DCRT), was designated as [TRANSLATION] *“a detailed estimate of the cost of work before calls for tenders are issued.”* The second, which as of May 2010 was produced under the direct responsibility of the DTP manager, then, since 2011, under the responsibility of the Division de l'estimation des coûts (DEC), was designated as [TRANSLATION] *“a detailed estimate of the cost of work during the tendering period.”* This second estimate was produced under a professional services agreement with a construction economist firm until August 2011.

For the purposes of our audit report, cost estimates produced by the DCRT will be considered detailed cost estimates, while those produced by the DEC will be designated as detailed control estimates. In addition, the firm of construction economists will be designated as the specialized firm.

During our audit, we wanted to make sure that cost estimates used by the DTP were sufficiently reliable to enable all stakeholders to make informed decisions. First, we have dealt with the detailed cost estimates produced by the DCRT, as it uses these to ensure that projects are feasible within the budgets presented by requesters and these are the only ones to be prepared before calls for tenders are issued. Although several estimates (of different types) were produced during the design phase of a project, our review concerned only the final versions of the detailed cost estimates. Second, we reviewed the detailed control estimates produced by the specialized firm, since the DTP relies on them when recommendations for awarding contracts are made to authorities. Third, we compared these detailed estimates with the bids received. We also reviewed the amount of cost estimates published in the SEAO. Finally, we addressed the DTP's position with respect to the cost estimating methodology.

We should point out that the recommendations in this report apply to the current operation of the cost estimating process within the DTP. Any necessary adjustments will have to be made along with the guidelines that will be proposed.

### 3.1. DETAILED COST ESTIMATES PRODUCED BEFORE CALLS FOR TENDERS ARE ISSUED

Reviewing the work to be done and producing cost estimates are both part of project planning. Accordingly, business units (requesters) are responsible for the preliminary planning of their projects, adopting the necessary budgets and obtaining authorizations before issuing calls for tenders. During these steps, they use preliminary cost estimates for budgeting purposes. When their preliminary planning is completed, business units send the projects to the DTP for the design and implementation phases.

The DCRT then prepares a [TRANSLATION] “work request form” (WRF), which includes information such as the type of work to be done, preliminary cost and schedule. Once approved by the requester, each party signs the WRF to indicate that they accept the mandate. Then the DCRT specifies the type of work to be done, usually after conducting an on-site visit as well as the necessary studies or analyses. During this preparatory phase, plans, specifications and tender documents are produced for the process of awarding contracts to contractors. To this end, the DCRT draws up a list of items for the bid form and determines the quantities required. A detailed cost estimate is also prepared to ensure that projects are feasible within the requesters’ projected budgets.

For the period under review, the requesters assigned contracts to the DCRT that divided the work among the following three operating units, based on the types of projects:

- Water and sewers
- Roads
- Large-scale projects

Detailed cost estimates are systematically prepared at this division before calls for tenders are issued. For most projects, they are generally produced by internal resources. However, in the event of capacity constraints, some mandates are assigned to engineering firms. In such cases, the detailed cost estimates are carried out by the firms.

Historically, detailed cost estimates were used to analyze the bids received and to recommend that the contract be awarded to the lowest compliant bidder. However, as of March 2010, the DTP has been using the services of a specialized firm to prepare detailed control estimates during the tendering process. According to the DTP manager, it was during this period that DCRT staff members were informed that their detailed cost estimates would no longer be used to support recommendations for awarding contracts, but that those of the specialized firm would be used instead. However, the manager continued to have DCRT resources produce detailed cost estimates to ensure compliance with requesters' allocated budgets. It should be noted, however, that in 2010 a few detailed cost estimates produced by the DCRT were used to support the recommendation of the tenders selected.

No matter what they are used for, reliability of detailed cost estimates is based on the combination of two basic parameters: the quantities established according to the final plans and specifications and the unit prices associated with these. Another parameter is a provision for contingencies.

In the next few sections, we will discuss the main elements (quantities, prices and contingencies) of DCRT's cost estimating process and we will assess the rigour with which these data were determined. We will also discuss certain controls used for the detailed cost estimates, such as approval, confidentiality and information security.

### **3.1.1. DETERMINATION OF QUANTITIES**

#### **3.1.1.A. Background and Findings**

A detailed cost estimate contains a description of the items requested, the measuring unit and the projected quantities. These quantities are calculated on the basis of plans and specifications before producing the bid forms used for calls for tenders. It should be noted that these are the same quantities used for the DEC's detailed control estimate. Since bidders, who have access to the plans and specifications, make their own calculations during the tendering period, insufficiently precise quantities is likely to influence the unit prices submitted and consequently the total price of the bids. In fact, for some quantities, an overvaluation could result in bidders submitting below-market

unit prices. Conversely, an undervaluation of the quantities could lead to higher unit prices. Accordingly, it is important that projected quantities be established with sufficient accuracy to minimize contractors' margin of error.

While our audit was not designed to express our view about the types of items appearing on the price schedules, we nonetheless made sure that the projected quantities in detailed cost estimates were based on supporting documents (e.g., project plans signed by an engineer) and that the calculations were documented.

Out of 11 cases reviewed, 7 involved plans signed by an engineer. Four cases involved the reconstruction of water mains and sewers, two cases involved pavement reconstruction and one case involved the reconstruction of an embankment. We used surveys to review the determination of quantities associated with 54 items out of a total of 182 (30%). These items accounted for 54% of the detailed estimates' costs.

Generally, we noted that neither the calculations of audited quantities nor their degree of accuracy were documented, thereby making it more difficult to demonstrate how they were determined. For the purposes of our audit, the project managers we met with reconstructed the quantities entered in the detailed estimates. For 37 items out of the 54 audited (68%), the quantities were effectively based on the project plans. But for the other 17 items out of the 54 audited (32%), there were discrepancies between the quantities measured by the project managers and those entered in the detailed estimates. Accordingly, the quantities for 15 items, taken from four estimates, had been overvalued, while the quantities for 2 items, taken from another estimate, had been undervalued. For each of these items, the variance represented from 0.43% to 6.7% of the estimated cost. The variance for the 17 items represented \$46,321, or 1.1% of the estimated cost.

For two other cases, both bicycle path development projects, the information obtained indicated that plans signed by an engineer were produced initially, but we received no evidence of this at the time of our audit. Nevertheless, the quantities projected in the detailed cost estimate were established on the basis of the measured surface areas of

the streets determined by the Direction du transport, which was acting as a requester. There was no documentation on file to support the determination of these quantities.

After one of the bicycle path development projects was awarded, it turned out that some of the boroughs affected by the work did not agree with the initial choice of streets proposed by the requester, and one borough was not even interested in the project. As a result, the requester made a change in its choice of streets. The quantities initially projected in the detailed cost estimate did therefore not correspond to the street that was ultimately chosen. We think that the estimate produced before calls for tenders were issued is of questionable reliability. However, our audit revealed that a WRF had been signed before the detailed estimate was prepared. Nevertheless, the refusal of some boroughs forced the requester to redo the preparatory work, draw up new plans and specifications and review the calculations of quantities. In our opinion, the DTP should take the necessary steps to ensure that the WRF clearly reflects the fact that the requester obtained the agreement of the boroughs concerned when the contract is signed. This evidence could take the form, for example, of a box on the WRF form.

We also noted 2 other cases out of the 11 for which the DTP started preparatory work and produced detailed estimates before obtaining the requester's signature on the WRF. The quantities involved were not disputed after the contract was awarded and therefore did not have to be calculated again by the DTP. However, we think that the absence of an order signed by the parties before the design phase starts exposes the DTP to the risk of allocating resources prematurely, even unnecessarily.

No plans were produced for the last two selections in our sample, which involved pavement-levelling projects. In fact, it was on the basis of the requester's allocated budget for this type of work and a historical total cost per square meter (m<sup>2</sup>) that the total surface area was determined. According to the information obtained, since recurring infrastructure work was involved, the projected quantities for the items on the bid form were determined by referral to previous calls for tenders. There was no evidence on file to support the establishment of these quantities. Moreover, when this method is used to establish projected quantities, there is a risk that they will be over- or undervalued, based on the reliability of the overall cost used compared to current

market prices. Accordingly, to determine quantities with greater accuracy when detailed estimates are prepared, we believe that unit costs reflecting market values must be used. The establishment of unit prices will be discussed in more detail in section 3.1.2.

Finally, *addenda* are sometimes sent to those who obtain the tender documents during the tendering period. At the time of our audit, these *addenda* were produced by the DCRT. We compared the quantities appearing on the bids received with those appearing in detailed cost estimates to ensure that they had been updated. In 2 cases out of 11, we noted variances, albeit minor ones, in the quantities for six items grouped together. Our audit revealed that *addenda* were in fact sent to those who obtained the tender documents without the detailed cost estimates being updated. In our opinion, this situation does not allow DCRT resources to have complete information at hand, either to document their files or for future use.

#### **3.1.1.B. Recommendations**

**We recommend that the Direction des travaux publics take the steps required to improve documentation supporting the determination of quantities of items appearing in detailed estimates and the degree of accuracy with which quantities are established, so the data will be more reliable.**

**We recommend that the Direction des travaux publics make sure that it obtains the requester's written consent before beginning project design work so that it can allocate its resources effectively. The requester's written consent should also indicate that it obtained the prior consent of the boroughs concerned for the projects.**

**We recommend that the Division conception et réalisation des travaux update the quantities appearing in the detailed estimates when *addenda* are produced during the public tendering process so that files reflect complete information for future reference.**

### 3.1.1.C. Action Plan of the Relevant Business Unit

- **DIRECTION DES TRAVAUX PUBLICS**

1) [TRANSLATION] “The method for establishing quantities will be specified and documented. Each file will be evaluated for its degree of accuracy. This information will be entered in the files.” (**Planned completion: September 2012**)

2) [TRANSLATION] “At present, the plan produced in the winter mainly concerns work to be done during the summer, which makes for a high-pressure situation and reduces overall planning time for work and dividing lots.

*In the future, TCEP planning should be completed much earlier.*

*It is the requesters’ responsibility to obtain agreement from the boroughs, and the DTP will require the signature of the WRF.” (**Planned completion: April 2012**)*

- **DIVISION CONCEPTION ET RÉALISATION DES TRAVAUX**

[TRANSLATION] “During the tendering process, the control estimate can help detect any irregularities; where necessary, they are communicated to the DCRT, which will issue addenda accordingly.” (**Planned completion: April 2012**)

### 3.1.2. DETERMINATION OF UNIT PRICES

#### 3.1.2.A. Background and Findings

The unit price estimate should be established by a method that produces reliable information on the most likely cost of the planned work. Rigour is needed to determine unit prices primarily so that requesters can program their projects. It is needed generally, not only because it is the basis for awarding contracts, but also to raise questions about and even challenge bids received when large variances are noted. However, under the guideline adopted by the DTP manager, detailed cost estimates are not used to approve the price of bids.

During our audit, we reviewed the rigour of the method used internally to determine unit prices and their supporting documents. Since detailed cost estimates are prepared by the DCRT before calls for tenders are issued, they are the only estimates that can be communicated to requesters to enable them to review their project planning. According to the information obtained, the DCRT does not communicate the amount of detailed cost estimates to requesters before calls for tenders are issued, in order to keep the information confidential. However, in some cases, large variances between the rough estimates prepared by requesters and the bids selected are noted. Thus, out of the 11 projects selected, 4 showed variances ranging from \$637,852 to \$1,288,601 (22% to 49% of the rough estimates). Since requesters have limited budgets for the large number of projects to be carried out, it would be desirable for them to be made aware of the most likely cost of a project through detailed cost estimates as promptly as possible. This information would allow requesters to use funds that become available to initiate some projects or postpone others.

According to the information obtained for the period covered by our sample, some of the detailed estimates prepared by the DCRT were used when the bids received were analyzed. However, since November 2010, we found that these detailed cost estimates are no longer cited in decision-making summaries produced by the DTP to make recommendations to authorities for awarding contracts. In fact, since November 2010, decision-making summaries refer instead to detailed estimates produced for the call for tenders by the specialized firm, by outside engineering firms and, more recently, by DEC estimators.

Despite this tendency, especially as it pertains to detailed cost estimates, the people we met with informed us of the method they used to determine unit prices. Unit prices for recurring items are based on various reference lists and the prices are fixed for a one-year period. These unit prices were first calculated using the weighted average of previous bids recorded in GESPRO,<sup>3</sup> then they were revised by engineer team leaders to reflect the market reality. These lists suggest unit prices for each type of work (e.g., roads, lighting and signs, sewers and water mains), without taking into account the seasonal nature and variable conditions of the market.

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<sup>3</sup> GESPRO: Project management system. Database used to compile the bids of the last three years.

For nonrecurring items, those that do not appear in a reference price list, unit prices are also generated by GESPRO and adjustments are also made. When no prices are available either in a reference list or in GESPRO, the engineers try to estimate unit prices by comparing them with similar items. When no correlation of existing data is possible, they set the prices according to their judgment.

For aqueduct and sewer projects, unit prices are not only determined using GESPRO, but also take into account historical cost estimates produced by the specialized construction economist firm.

Out of the 11 detailed estimates in our sample, 9 were produced internally. We reviewed both the rigour with which the method had been applied to those 9 estimates and the supporting documents.

First, out of the 196 items appearing in these detailed cost estimates, we noted that 26%, or 52 items, were taken from reference lists. Our audit revealed that the use of unit prices appearing in these reference lists left much room for judgment, since in most cases project engineers adjusted the prices, even if they were not aware of the variables that were initially considered when the unit prices were established. To establish the unit prices of these 52 items, the engineers made upward or downward adjustments ranging from 1% to 100% to account for market variations and special projects characteristics. We did not find any documentation to support the adjustments made. We also noted that not everyone was aware of the existence of these reference lists.

We reviewed the extent unit prices in GESPRO were used for items that did not appear on the reference lists, or 74% of the items audited. Based on surveys, we noted that the unit prices of some items actually appeared in GESPRO, but that they had been adjusted upward or downward, from 0% to 367%. Here again, we noted randomly established prices, and price adjustments that varied from one engineer to another, depending on the perceived risk level or the engineers' level of knowledge or experience. We did not find any documents supporting the establishment of these unit

prices. For the other items not appearing in GESPRO, we were also unable to find any documentation supporting their determination.

For the other 2 cases out of the 11 selected, detailed cost estimates were produced by outside engineering firms, because the project design phase was referred to them. The DCRT project managers were unable to explain to us the procedure these firms used to establish unit prices.

We note a lack of uniformity in practices for all 11 cases selected and insufficient documentation to support the calculations and assumptions made to establish the unit prices of different items appearing in detailed cost estimates. As various adjustments are made to determine the most likely price for the proposed work, in our estimation, the method used leaves a lot of latitude but does not show evidence that much rigour was exercised.

Essentially, using an historical average unit price from previous tenders combines all prices, making no distinctions among the particular conditions that prevailed at the time of the projects under consideration or their varying degrees of complexity. However, when several people use their judgement to make adjustments to unit prices, this method moves away from the historical average unit price and closer to the fair market value, even for budget purposes, provided that the adjustments are representative of those prices.

In conclusion, we believe that the practices used by the different units (aqueduct and sewers, roads and large-scale projects) should be standardized and that unit prices should be better documented. Adequate documentation would demonstrate work performed to new resources or third parties and would facilitate the establishment of unit prices for other detailed estimates.

### 3.1.2.B. Recommendations

We recommend that the Direction des travaux publics take the necessary steps to:

- standardize practices among the different sections of the Division conception et réalisation des travaux
- document the calculations and assumptions made at the time unit prices are established, according to the method used

in order to demonstrate the rigour and consequently the reliability of detailed cost estimates.

### 3.1.2.C. Action Plan of the Relevant Business Unit

*[TRANSLATION] “A procedure for using the database to consult unit prices will be written. It will be used by all engineer designers. They will document in the file the ways in which unit prices will be used and the working hypotheses that justify them.*

*The use of a form for this purpose will be reviewed.” (Planned completion: September 2012)*

## 3.1.3. DETERMINATION OF THE PROVISION FOR CONTINGENCIES

### 3.1.3.A. Background and Findings

A provision for contingencies is established to cover the cost of any unforeseen work that may be required for a project. This item, which is added to the costs of the detailed estimate of the work, must be determined following a risk analysis of unforeseen events arising during the project. At the detailed cost estimate stage, the greater the precision with which quantities were established, the lower the risk that unforeseen events will arise. The amount of the provision for contingencies must be as low as possible to foster tighter cost management.

The purpose of our audit was to ensure provisions for contingences were based on analyses of project-related risks and that documented calculations supported these provisions.

During our audit, DTP engineers mentioned to us that a provision for contingences is determined according to their judgment and based on numerous risk factors and particular characteristics of the project. These risk factors are directly related to the complexity of the work to be done, the geographic location of the project, knowledge of the environment or the precision with which quantities were established.

For the selected sample, we noted that contingency provisions in estimates varied from 5% to 14% of the projected cost of the work. But no documentation existed to support the criteria selected to determine this provision for contingencies. Furthermore, we were given very few explanations to justify the establishment of this provision.

Our observations focused on detailed cost estimates produced before the first guidelines issued by the Direction générale, [TRANSLATION] “Management of Contract Contingencies, Impact and Expenditures”, came into force in July 2011. The provision for contingencies established by the DTP should now comply with this directive, which specifies contingency management standards, particularly for tender documents for contracts for performance of work. One of the sections discusses the establishment of the contingency envelope in greater detail following:

- determination of potential risks related to activities covered in the contract and schedules
- determination of the amounts associated with each risk based on the likelihood of potential mitigation measures, if applicable, and possible scheduling consequences

The total costs associated with each of these risks become the estimated contingency envelope.

The Direction générale stipulates that all managers affected by this directive are responsible for enforcing it, integrating it into their activities, monitoring and reporting on it to their superiors.

### **3.1.3.B. Recommendations**

**To promote more rigorous cost management, we recommend that the Direction des travaux publics take the necessary steps to ensure that determination of the**

contingency provision is based on an assessment of the risks associated with the project.

To demonstrate the reliability of cost estimates, we recommend that the Direction des travaux publics enter both the determined risk criteria and the calculations made to assess the size of the provision for contingencies in the file, as stipulated in [TRANSLATION] “Management of Contract Contingencies, Impact and Expenditures”, which came into force in July 2011.

#### **3.1.3.C. Action Plan of the Relevant Business Unit**

[TRANSLATION] “A means of calculating contingencies has already been in place since September 2011, and is supported by tools such as a risk analysis grid.” **(Completed)**

#### **3.1.3.D. Comments from the Auditor General**

The files reviewed concern the year 2010 and the first two months of 2011. They do not contain information that can be used to evaluate the risks involved in each project. There will be follow-up for corrective action taken by the DTP, as per our normal auditing process.

### **3.1.4. APPROVAL OF DETAILED COST ESTIMATES AND DATA CONFIDENTIALITY**

#### **3.1.4.A. Background and Findings**

Given the importance of detailed cost estimates in decision-making, aspects other than the establishment of quantities, prices and contingencies should be considered to ensure their reliability. Detailed cost estimates must be approved by a person in authority to confirm the quality of the information they contain. An approval process must be established and followed in order to provide a reasonable degree of assurance about the reliability of detailed estimates. The amounts of detailed cost estimates or their components must not under any circumstances be disclosed to future bidders. It is obvious that confidentiality promotes healthy competition to obtain the best prices on the market for the planned work.

At the time of our audit, detailed cost estimates prepared by project engineers from each of the sections concerned (roads, water and sewers and large-scale projects) were submitted to the engineer team leaders in charge.

In 2010, they were then forwarded for tendering to the DCRT engineer in charge of planning. In 2011, the DTP, in establishing its new business model, separated the duties of the project design phase from the duties related to the tendering process into two separate divisions. This new structure ensured that detailed cost estimates continued to be prepared by each of the DCRT sections. However, from that point, they were sent to the Division gestion des projets et relations d'affaires (DGPR), which is responsible for market canvassing and communication with bidders. It should be noted that detailed cost estimates were entrusted to limited resources in this division in order to keep them confidential.

According to the information obtained for the audited period, detailed cost estimates were kept under lock and key at this division until the bids were opened. Estimates stored on electronic media were also saved in a secure directory on the server, with access limited to authorized persons. In addition, detailed cost estimates were sent to the DEC starting in May 2011.

With respect to the approval process, we noted that all detailed estimates prepared by the sections concerned were accompanied by a memorandum stating that they had been sent to the engineer in charge of planning for the purpose of issuing calls for tenders. We found evidence that the engineer team leaders of the sections concerned had initialled this memorandum. We think, however, that in view of the important decisions that stem from detailed cost estimates, they should instead be approved systematically by a manager in charge (e.g., section head).

On the subject of confidentiality, the DTP took steps in 2011 to delete messages sent between the technical staff that prepares tender documents (plans and specifications, tender forms) and potential bidders. It was through the creation of the DGPR that a separation of duties was made possible. It then became responsible for receiving

questions via a special email box from those who received tender documents, sending these questions to project designers and answering bidders' questions anonymously.

However, when the detailed cost estimates were produced, we noticed that sensitive information (e.g., reference price lists, copies of detailed estimates) was kept by several resources within the DCRT.

Moreover, the people we met with mentioned that paper copies of the reference price lists used to determine unit prices were in circulation. In our opinion, this practice can lead to lists easily being copied, misplaced, transferred or handled without regard for their confidentiality.

During the tendering process, the detailed cost estimates also remain accessible in GESPRO by all users with access to the bid forms, although this runs counter to internal instructions given verbally. Not only are detailed estimates available in GESPRO, they also exist in hard copies, which are kept by the engineers in charge. According to the information obtained, written security measures for DCRT staff involved (e.g., shredding, engineers keeping estimates filed under lock and key) were nonexistent at the time of our audit.

Even though the DTP separated project design and market canvassing duties, even though it kept hard copies of detailed cost estimates under lock and key, and even though it created a secure directory for the electronic version, information security risks are still present. We believe it is important that both the data used for detailed cost estimates of projects and the estimates themselves not be easy to access by anyone other than the staff who produce them or ensure that they are kept confidential. If any of this information should be communicated to future bidders, it could jeopardize the independence of the cost estimating process. In this area, clear directives should be issued to the resources concerned.

Finally, considering the DTP manager's guideline on detailed cost estimates produced by the DCRT, these estimates are produced to ensure that the projects are feasible within the budgets allocated by requesters. Yet we noted previously that, based on the

files selected, the amount of detailed cost estimates was not communicated to requesters before calls for tenders were issued to reassure them about the cost of their project. According to the DGPR manager in charge, meetings with requesters were held from time to time in 2011 to inform them of the progress of their projects. During these meetings, project costs would have been one of the points raised in cases where projects were expected to go over budget. We believe that this practice must be encouraged so that requesters can plan effective use of available budgets. In our opinion, however, the amounts of the latest version of the detailed estimates should be communicated to requesters before calls for tenders are issued—to authorized persons only—since they are in fact the DCRT's clients.

#### **3.1.4.B. Recommendations**

**We recommend that the Direction des travaux publics systematically show evidence that a manager in charge gave written approval of detailed estimates, in order to confirm the reliability of data that will be used for decision-making.**

**We recommend that the Direction des travaux publics produce a directive concerning the security of sensitive information in the cost estimating process, whether electronic or hard copy, to limit access to authorized users only and to reinforce the security of the cost estimating process.**

**Before issuing calls for tenders, we recommend that the Direction des travaux publics communicate to requesters, to authorized persons only, the amount of the latest version of detailed estimates so that they can properly plan the budgeting of available funds.**

#### **3.1.4.C. Action Plan of the Relevant Business Unit**

- 1) *[TRANSLATION] "A procedure for estimates produced during the design phase will be written up. It will describe the process for signing documents and comply with the rules set out by the Ordre des ingénieurs du Québec, taking into account the use that will be made of this estimate." (Planned completion: June 2012)*

- 2) [TRANSLATION] *“To follow up on directive C-OG-SDO-D-12-001, development of a procedure has been under way since February 2012 to establish DTP operating rules.” (Planned completion: June 2012)*
  
- 3) [TRANSLATION] *“Requesters are kept informed of budgets at every stage of their projects; we plan to hold monthly meetings with all requesters to discuss technical content, budgets and schedules.*

*The estimate referred to is produced a few days before the call for tenders is issued. The tendering period is generally 13 working days. Therefore, this is generally not critical for requesters’ planning. Considering the duration of the whole process of implementing a project, there is a very short period between production of the two estimates (detailed estimate and control estimate). However, an operating rule will be put in place giving details on sending total amounts of control estimates to requesters.” (Planned completion: June 2012)*

### **3.2. DETAILED CONTROL ESTIMATES PRODUCED DURING THE TENDERING PROCESS**

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

In addition to separating duties, which was covered in the last section, the DTP created the DEC under its new 2010–2011 business model. This division must ensure that detailed control estimates are prepared for all projects for which the DTP has issued public calls for tenders, at the same time and under the same conditions as potential bidders. These detailed control estimates were to be compared with the price submitted by the lowest compliant bidder.

This division was just being set up at the time of our audit, and the DTP was using the services of a specialized firm as a temporary measure. In December 2009, the DTP recommended that the executive committee award a professional services contract to a specialized firm of construction economists. This contract was for an amount of \$450,000 for a period not exceeding three years (2010 to 2012), and its purpose was to confirm the costs of urban infrastructure projects. When the authorities awarded this contract, the DTP reported in the decision-making summary that it engaged construction

economists, because this proved to be an appropriate way of ensuring that both internal project evaluations and bids received reflected the usual market costs for this work. It also stated that it wanted to use the appropriate method to determine the true and fair value to verify that each cost on bids received was valid, based on the market conditions at the time of the call for tenders.

Some of the projects submitted for estimates involved bridges, tunnels, road works and water and sewer systems. They could be either recurring (programs involving road rehabilitation, water mains, bicycle paths, etc.) or one-time, and they involved varying degrees of complexity. The estimate had to be itemized (e.g., direct and indirect labour, material and equipment, direct and indirect costs).

For recurring projects, the specialized firm had to compile various results using software of its own design to create a data warehouse at the end of the contract that would be used by the DTP to estimate the costs of future projects.

For each project submitted, the specialized firm had to produce a cost estimate, based on the plans and specifications prepared by the city, while calls for tenders were being issued. This estimate therefore had to represent the fair price of a given project, based on market conditions and under the same constraints and conditions as the bidders.

In its proposal, the specialized firm mentioned that the methodology used was based on internationally recognized good practices. The main steps are, first, analyzing the tender documents, then visiting the work site, confirming the quantities appearing on the bid form, determining the particular characteristics of the project, confirming the work performance period and time required, reviewing the traffic maintenance requirements, evaluating and comparing supplier or subcontractor prices needed for the estimate.

To establish the prices, the methodology consists in dividing each item on the bid form into daily deliverables and estimating the efforts required for equipment, labour and materials, based on the geographic characteristics of the sites, soils, obstacles or other constraints or conditions affecting the work to be carried out. It also requires gathering the following market information:

- Materials: the prices proposed by several suppliers based on market prices (without discounts) at the time of the bid
- Labour: the direct labour rate according to the relevant collective agreement at the time of the bid
- Equipment: bulk transport rates according to the rates published by the Ministère des Transports du Québec and rates for leasing heavy machinery from the Québec government

Finally, in addition to these direct costs, there are management and administration costs, a profit margin, etc.

From March 2010 to July 2011 (17 months), the DTP used the specialized firm for almost all the projects for which public calls for tenders were issued. Subsequently, in August 2011, the DTP was able to send the specialized firm only a few projects, because the budget available for the contract had been used up. A few requests for detailed control estimates were made to estimators recently hired at the DEC. For the few other projects, the design phase, including the preparation of detailed estimates, was awarded to outside engineering firms, and detailed control estimates were not requested.

During the period in which the DTP used the services of the specialized firm, the DGPR received the detailed control estimates requested until the DEC took over this task in 2011. As agreed, the specialized firm had to complete the bid form, just like the other bidders. These estimates were based on both the quantities established by the DCRT when tender documents were being prepared and the unit prices established through the specialized firm's methodology. We obtained electronic copies of the detailed control estimates produced by the specialized firm for the files in our sample along with a note confirming that they had effectively been sent to the DGPR before the end of the tendering period.

However, we noted that reports supporting detailed control estimates produced by the specialized firm were not received for all projects submitted. In fact, the specialized firm produced, at the request of the DEC, 20 or so detailed reports out of a total of 94 files

(21%). According to the information obtained, the DTP did not request all the detailed reports, because it preferred to devote the funding provided for in the contract to the production of detailed control estimates. However, at the time of our audit, the detailed reports received had not been analyzed in whole or in part by a DEC representative, let alone communicated to the DCRT. It should be noted that the few reports sent by the specialized firm included not only the price schedule sent to either the DGPPA or the DEC, but also a breakdown of items on the pricelist, taking into account the estimated efforts and the unit prices used, the comparison of projected quantities appearing on the pricelist with the estimated quantities as well as recommendations for the projects submitted.

As the specialized firm's estimates were supposed to be used to validate the bids received, and they appeared in decision-making summaries on awarding of contracts by authorities, we think these detailed reports would have been useful for backing up the information provided. Accordingly, when recommendations to award contracts were made, the DTP did not have enough background material for all projects to justify the estimated prices or answer any questions on the subject.

Moreover, as the DTP specified only the amount of the detailed estimate prepared by the specialized firm as a reference in decision-making summaries produced as of November 2010, this was the estimate that had to be published in the SEAO to comply with the Act. The resulting lack of background material justifying these estimates runs counter to the directive "Publication des contrats," issued by the city manager in April 2011, which specifies that documents must be prepared to justify quantity estimates and the estimated price of the contract. Given the confidence the DTP places in the detailed control estimates provided by specialized firms, we believe that it is absolutely essential that it obtain detailed reports for each project so that it can support data that are likely to be called into question.

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

**When detailed control estimates are produced by a specialized firm, we recommend that the Direction des travaux publics obtain detailed reports so that it can support the information provided in decision-making summaries, or the**

electronic tendering system when requested in accordance with the directive on publication of contracts.

### 3.2.C. Action Plan of the Relevant Business Unit

*[TRANSLATION] “Since the DEC was established, experts have been monitoring all mandates executed by the firm and making sure that they obtain all the information requested. Projects are analyzed by DEC experts, with the firm’s support, if necessary.*

*This clarification with the selected firm was made in early February 2012 during the launch meeting for the new framework agreement and is now in effect.” (Planned completion: March 2012)*

## 3.3. COMPARATIVE ANALYSES OF DETAILED COST ESTIMATES AND DETAILED CONTROL ESTIMATES WITH THE BIDS RECEIVED

### 3.3.A. Background and Findings

When bids are opened, the DGPRP audits their administrative compliance and specifies the lowest compliant bidder. The bids received and the detailed control estimates are then transferred to the DCRT to prepare the decision-making summary for awarding the contract.

We mentioned above that detailed control estimates should have been a reliable reference for judging whether the bids received are reasonable. Reliable cost estimates should therefore be representative of the market. Otherwise, mechanisms should make it possible to recognize variances and provide convincing explanations to reassure authorities when a contract is awarded. In the event that large variances remain unaccounted for or unacceptable, the situation should also be disclosed to authorities to facilitate decision-making.

During our audit, we wanted to assess the reliability of the detailed estimates used to judge the reasonableness of bids. In order to achieve this, we considered it appropriate to use the DCRT detailed cost estimates to confirm or refute the accuracy of the detailed control estimates because detailed cost estimates were used to approve the bids received before detailed control estimates were prepared by the specialized firm.

For our analysis, we compared both the amount of the detailed control estimates and the amount of the detailed cost estimates produced internally (by the DCRT) with the lowest bid selected, as it is recommended to authorities when the contract is awarded.

We found that almost all the detailed estimates for 2010 were higher than the lowest bids selected, both the estimates produced internally (33/36, or 92% of the cases) and those produced by the specialized firm (33/35, or 94% of the cases) (see Table 1).

We also found that most of the detailed estimates for 2011 (January 1 to August 22, 2011) were higher than the lowest bids selected, but to a lesser extent than in 2010. For detailed estimates produced internally, we observed a proportion of 87% of the cases (48/55) were higher, while for detailed control estimates, this proportion was 84% of the cases (41/49) (see Table 1).

**Table 1—Comparison of Detailed Estimates with Selected Bid – Distribution of Files**

Estimates produced compared to the lowest bid selected	Public calls for tenders – 2010				Public calls for tenders – 2011 (January 1 to August 22)					
	Detailed estimates		Detailed control estimates		Detailed estimates		Detailed control estimates			
	DCRT		Specialized firm		DCRT		Specialized firm		DEC	
	N°	%	N°	%	N°	%	N°	%	N°	%
Undervaluation	3	8%	2	6%	7	13%	8	16%	2	67%
Overvaluation	33	92%	33	94%	48	87%	41	84%	1	33%
<b>Total files</b>	<b>36*</b>		<b>35</b>		<b>55<sup>#</sup></b>		<b>49</b>		<b>3</b>	

\* Out of 36 public calls for tenders, one file was assessed by an engineering firm, while another file was not sent to the specialized firm (work related to the lighting of building façades).

<sup>#</sup> Out of 55 public calls for tenders, three files were assessed by engineering firms and detailed control estimates were not produced.

A situation in which the bids received are lower than the estimates is of course financially advantageous for the work provider; however, the work provider must ensure that the work will be done as planned. Even though this was the case with most files for 2010 and 2011, for the other calls for tenders, the bids received were higher than the detailed control estimates. A work provider that awards a contract in such a situation assumes the risk of paying a higher price than it really should. The city should adopt appropriate measures to mitigate the consequences of these two types of risk. For

example, these measures could ultimately include the rejection of bids received following a call for tenders or intensified efforts to monitor the work. It is obvious that the extent and frequency of variances involved will be the focus of future initiatives proposed.

We reviewed the size of the variances (in absolute relative values) between the detailed estimates and the lowest bids for all public calls for tenders in 2010 and up until August 22, 2011. For our analysis, we chose 10% as an acceptable threshold, as set forth by the Direction du greffe in January 2011 in the guide covering content and presentation of decision-making records submitted to authorities. It should be noted that a 10% threshold is also taken into account in the procedures followed by the Ministère des Transports du Québec when bids are higher than the estimates.

We noted that in 78% (28/36) of the contracts awarded in 2010, the variance between the detailed cost estimate produced internally and the lowest bid was greater than 10%. This proportion is slightly higher, 86% (30/35), for detailed control estimates (see Table 2).

For 2011, we found that the proportion of variances of more than 10% was maintained for 78% (43/55) of detailed cost estimates produced internally. We noted a better situation for the detailed control estimates, with 62% of the cases (30/49) (see Table 2).

**Table 2—Distribution of Files Based on Variances Noted  
Between Detailed Estimates and Bids Selected**

Variance percentage noted	Public calls for tenders – 2010						Public calls for tenders – 2011								
	Detailed estimates			Detailed control estimates			Detailed estimates			Detailed control estimates					
	DCRT			Specialized firm			DCRT			Specialized firm			DEC		
	N°	Cumulative		N°	Cumulative		N°	Cumulative		N°	Cumulative		N°	Cumulative	
	N°	%	N°	N°	%	N°	N°	%	N°	N°	%	N°	N°	%	
0% to 10%	8	8	22%	5	5	14%	12	12	22%	19	19	38%	3	3	100%
11% to 20%	3	11	31%	6	11	31%	12	24	43%	14	33	67%	0	3	100%
21% to 30%	0	11	31%	4	15	43%	6	30	54%	4	37	75%	0	3	100%
31% to 40%	3	14	39%	6	21	60%	6	36	65%	10	47	95%	0	3	100%
41% to 50%	3	17	47%	3	24	69%	7	43	78%	2	49	100%	0	3	100%
51% to 60%	6	23	64%	1	25	71%	7	50	90%	0	49	100%	0	3	100%
61% and +	13	36	100%	10	35	100%	5	55	100%	0	49	100%	0	3	100%
<b>Total files</b>	<b>36*</b>			<b>35</b>			<b>55#</b>			<b>49</b>			<b>3</b>		

\* Out of the 36 public calls for tenders, one file was assessed by an engineering firm, while another file was not sent to the specialized firm (work related to lighting of building façades).

# Out of the 55 public calls for tenders, three files were assessed by engineering firms and were not covered by detailed control estimates.

Whatever the source of the detailed estimate, results indicate that most files exhibited a variance that was 10% higher than the lowest bid. According to construction economics experts, a comparison of the detailed estimate with the lowest bid is certainly a guide, but the contractor submitting the lowest bid may have taken personal and circumstantial factors into account that could not be considered in the detailed estimate. In view of these results, we took the comparison further, comparing detailed cost estimates and detailed control estimates not only with the lowest bid selected, but also with the average of the bids. According to experts, this average is higher than the market price.

**Table 3—Distribution of Files Based on Variances Noted  
Between Detailed Estimates and Average of Tenders Received**

Variance percentage noted	Public calls for tenders – 2010						Public calls for tenders – 2011								
	Detailed estimates			Detailed control estimates			Detailed estimates			Detailed control estimates					
	DCRT			Specialized firm			DCRT			Specialized firm			DEC		
	N°	Cumulative		No	Cumulative		N°	Cumulative		N°	Cumulative		N°	Cumulative	
N°		%	N°		%	N°		%	N°		%	N°		%	
0% to 10%	7	7	20%	11	11	33%	23	23	45%	24	24	51%	3	3	100%
11% to 20%	8	15	44%	8	19	57%	5	28	54%	17	41	87%	0	3	100%
21% to 30%	4	19	55%	5	24	72%	7	35	68%	4	45	95%	0	3	100%
31% to 40%	4	23	67%	2	26	78%	11	46	90%	1	46	97%	0	3	100%
41% to 50%	2	25	73%	2	28	84%	2	48	94%	1	47	100%	0	3	100%
51% to 60%	3	28	82%	1	29	87%	1	49	96%	0	47	100%	0	3	100%
61% and +	6	34	100%	4	33	100%	2	51	100%	0	47	100%	0	3	100%
Average not available	2	36		2	35		4	55		2	49		0	3	
<b>Total files</b>	<b>36*</b>			<b>35</b>			<b>55#</b>			<b>49</b>			<b>3</b>		

\* Out of 36 public calls for tenders, one file was assessed by an engineering firm, while another file was not sent to the specialized firm (work related to lighting of building façades).

# Out of 55 public calls for tenders, three files were assessed by engineering firms and were not covered by detailed control estimates.

We noted that the variance between the detailed cost estimates produced internally for the contracts granted in 2010 and the average of the bids was over 10% in 80% of the cases (27/34). This proportion drops to 67% (22/33) for detailed control estimates.

For 2011, we found that the proportion of variances of more than 10% improved in both cases. Thus, for detailed cost estimates produced internally, the proportion is 55% (28/51 cases), while for detailed control estimates, the proportion is 49% (23/47 cases).

In the light of the variances noted between detailed estimates and the lowest bid or the average of the tenders, we evaluated the extent to which an analysis had been conducted and whether it had provided explanations that were useful for decision-making by authorities.

Referring to our selection of 11 files, we reviewed the variance analysis process. For the nine estimates produced internally (DCRT), we found no evidence that a comparative analysis of the bids received and the detailed cost estimate was conducted. In fact, the people we met with revealed to us that in 2010, a comparative analysis was conducted only when the lowest price submitted was at least 15% higher than the detailed estimate. But when the prices submitted proved to be lower than the detailed estimates,

the comfort level was high enough that no comparative analysis was necessary. The DTP manager explained this situation by the fact that according to a guideline issued in 2010, detailed cost estimates should not be relied upon for recommending contracts.

We found a detailed comparative analysis report that met DTP requirements for professional service contracts in two files sent to outside engineering firms. In both cases, the firm explained the main variances observed and recommended that the contract be awarded to the lowest bidder. In one case, the analysis was based on a comparison of the bids received with the detailed cost estimate, and in the other case, the analysis was based on the comparison of the lowest bid and the detailed cost estimate.

For these same files, we found that no documented analysis was conducted by a DEC representative for variances between the estimates produced by the specialized firm and the lowest bid above 10%. The DCRT project engineer could observe these variances, but could not provide adequate explanations, because they were based on a methodology for establishing unit prices unknown to him, especially as he was not receiving detailed reports to support the data provided.

After analysing the bids received, the DTP justified its choice in decision-making summaries prepared for this purpose. Up until October 2010, these summaries occasionally presented the amounts of the detailed cost estimate produced internally as well as the specialized firm's estimate in comparison with the lowest bid. Starting in November 2010, only the amount of the specialized firm's estimate in comparison with the lowest bid was presented.

When the detailed control estimate was higher than the lowest bid, the DTP mentioned in decision-making summaries that the variance was in the city's favour and therefore recommended that the contracts be awarded at the prices submitted.

When the detailed control estimate was lower than the lowest bid, however, the DTP made the following comment: *[TRANSLATION] "After checking with [the specialized firm] regarding the unit prices used to establish the estimate, they confirmed that the*

*estimated prices are accurate and truly reflect the market reality. We can therefore conclude in this context that the difference between the cost of the successful bidder and the amount of the [specialized firm's] detailed estimate is acceptable.”*

In conclusion, we think that rigorous explanations about the main variances were not provided in the decision-making summaries for the files reviewed. We can therefore not decide, beyond all doubt, on the reliability of the detailed control estimates in judging whether the bids received are reasonable.

As most files in our sample concerned calls for tenders that were issued in 2010 for contracts that were awarded that same year, for our auditor's report we have considered guidelines that were issued subsequently by the Direction du greffe. In March 2011, the importance of setting a threshold used to analyse variances between detailed estimates and the lowest bids was specified in a guide on the content and presentation of decision-making records. According to this guide, business units must present and [TRANSLATION] *“provide a rigorous explanation of any variance of more than 10% between the successful bidder's bid and the last estimate produced.”* It also provides business units with guidelines on information that must be presented in the decision-making records:

- amount of each bid received
- last estimate produced
- average cost of the bids received
- difference between the average and lowest bids (as a percentage)
- difference between the highest and the lowest bids (in dollars and as a percentage)
- difference between the lowest compliant bid and the last estimate (in dollars and as a percentage)
- difference between the second lowest and the lowest compliant bids (in dollars and as a percentage)

Business units are also asked to mention in their decision-making summaries any risks related to either awarding the contract or performance of the planned work along with measures to mitigate or counter the risks. The information can be included in a

confidential note if the file is for the executive committee or on a supplementary data sheet if the file is for a council.

As these new guidelines came into force in March 2011 and consequently after the contracts covered by our sample were awarded, we questioned both the DCRT project engineers and a DEC engineer about the variance analysis process in place after this date. We also reviewed the type of information provided in decision-making summaries related to the awarding of contracts after March 2011.

According to the information obtained from the DCRT, tender analysis involves comparing the total of each bid, the total of the detailed cost estimate and the total of the detailed control estimate. When large variances are exhibited, a more detailed comparison is carried out to detect irregularities in the unit prices tendered. While such a comparative analysis runs counter to the guidelines issued by the manager, we were unable to substantiate the evidence of the operation described, since this analysis was not documented.

In our opinion, in view of the large number of data appearing on the bid forms, a visual comparison of tenders with detailed cost estimates and detailed control estimates is insufficient. In fact, when more than 50 items appear on the price schedule for a single project, and when this number is multiplied by the number of bids received and estimates produced internally and by the specialized firm, “visual analysis” becomes very arduous, with inconclusive results for justifying the awarding of a contract.

During our audit, we also questioned the engineer on duty at the DEC. According to the information obtained, no comparative analysis documents were produced there.

After the guidelines came into force, we found that decision-making summaries generally presented the required information on the amount of the bids, cost estimate and variances observed. It should be noted that only the amount of detailed control estimates was provided as a reference and not the amount of the estimates produced internally. This was therefore the basis authorities relied upon in their decisions to award contracts.

We found that general explanations were given for calls for tenders having a variance of more than 10% between the detailed control estimate and the lowest bid selected. Accordingly, the variances noted were not rigorously explained, as required by guidelines. When the specialized firm's estimate was higher than the lowest bid selected, the standard wording of the explanations provided was:

*[TRANSLATION] "After checking with our independent construction economist firm . . . regarding the unit prices used to establish the estimate, this firm confirmed for us that the prices submitted truly reflect the market reality.*

*Several factors and/or parameters can explain the discrepancies among bid prices: purchase discounts, productivity and production costs, hourly rates for equipment, bulk transport rates, indirect costs, percentages of profit and administration costs applied to project costs and the specific strategy used by each bidder.*

*In view of these statements, we conclude that the variance between the cost of the successful bidder and the amount of the [specialized firm's] detailed estimate is in the city's favour."*

The standard wording used to explain the amount of the detailed estimate when it was lower than the amount of the lowest bid.

*[TRANSLATION] "After checking with our independent construction economist firm . . . this firm confirmed for us that the prices they submitted currently represent the reference value for implementing this project.*

*Several factors and/or parameters can account for the discrepancies among bid prices: productivity and production costs, hourly rates for equipment, bulk transport rates, indirect costs, percentages of profit and administration costs applied to project costs and the specific strategy used by each bidder.*

*The bid results . . . tend to show an upward market fluctuation that can be explained by several factors intrinsic to the market during the tendering period."*

It is true that, based on the detailed control estimates established for most calls for tenders issued since March 2011, the situation was advantageous to the city financially, because bid prices were lower. In our opinion, however, the explanations provided for variances should have been more rigorous, should have emphasized the particular characteristics of each file more and should have taken into account the information provided on the average of the bids. Also, in a situation in which several of the bids

selected were lower than the detailed control estimates, we think that authorities should have been made aware of the risks that such a situation poses in terms of both completion of the work planned under the contract and measures the DTP planned to adopt to mitigate or counter those risks.

For the calls for tenders where bid prices were higher than the detailed control estimates and the variance accounted for more than 10%, we would have expected the guidelines to specify actions to be taken in the event that the explanations provided did not justify awarding the contract, the rejection of tenders being ultimately one of these actions. Yet we did not find any such guidelines that applied to all the contracts awarded.

Following the creation of the Commission permanente sur l'examen des contrats, whose mandate is to ensure compliance of the tendering process, we noted that in August 2011, a document entitled *Guide d'information à l'intention des unités administratives* was released. This guide gives business units information on the criteria for sending contracts to the Commission. One of these criteria specifically concerns work performance contracts of more than \$2 million that have a variance of more than 20% between the internal detailed estimate produced during the tendering process and the successful bid. For these covered, the guide states that business units must provide Commission members with the methodology used to produce estimates as well as the variances between the reference estimate and the amount proposed by the successful bidder. They must also be able to account for any irregularities or peculiarities. After reviewing each of the files submitted, the Commission issues a conclusion about the compliance of the tendering process. It can also suggest improvements to the process through specific recommendations. These measures require business units to conduct a rigorous analysis of the main variances to provide adequate, conclusive explanations.

Our audit leads us to believe that the DTP's current practices to account for variances fall short of the rigorous standards required by the Commission permanente sur l'examen des contrats. We also consider many of the contracts recommended to authorities by the DTP to be exempt from these measures because of their amounts (under \$2 million). In fact, for the period from January 1 to August 22, 2011,

14 contracts out of 55 (25%) were under \$2 million and showed a variance of more than 20%. In our opinion, guidelines should provide for action to be taken for this type of contract if any variances remain unaccounted for after decision-making summaries are prepared.

In conclusion, our comparative analysis of detailed estimates and bids did not provide us with reasonable assurance that the detailed estimates produced by either the DCRT or the specialized firm were reliable. Even if the specialized firm posted better results for the first eight months of 2011, the DTP was still unable to demonstrate that they were significantly better than those obtained by the DCRT, even if the goals and estimating methods were different. In view of the fact that, since April 2011, the DTP has been required to publish the amount of the cost estimate produced before the bids are opened in the SEAO, and that this information is likely to be compared with both the bid prices and the total amount of actual expenditures, the city urgently needs to take the necessary steps to provide rigorous explanations for large variances. In section 3.5, we will discuss the procedures that will have to be followed to make it possible to evaluate detailed control estimates.

### **3.3.B. Recommendations**

**We recommend that the Direction des travaux publics take the necessary steps to document in the files:**

- **comparative analyses of bids and detailed control estimates**
  - **rigorous explanations for variances exceeding an acceptable threshold**
- to justify their choices**

**When decision-making summaries for awarding contracts are prepared, we recommend that the Direction des travaux publics rigorously explain, any variance above the acceptable threshold established (10%) between the successful bidder's tender and the detailed control estimate, in compliance with the Direction du greffe's guidelines, to facilitate authorities' decision-making.**

### 3.3.C. Action Plan of the Relevant Business Unit

[TRANSLATION] “Comparative analyses will be conducted for all projects when the discrepancy between the DEC estimate and the lowest compliant bidder’s bid is greater than 10 %. These analyses will be documented in the file.

Whenever necessary, rigorous analyses and explanations are provided, and these are documented in the file.

Furthermore, our recommendation that the DEC add specific actions in the decision-making record management system (GDD) will be implemented.” **(Planned completion: April 2012)**

[TRANSLATION] “The DEC has established a rigorous analysis process for accounting for variances and entering them in the decision-making record to clarify decisions made by authorities.” **(Planned completion: April 2012)**

## 3.4. PUBLICATION OF ESTIMATES IN THE ELECTRONIC TENDERING SYSTEM

### 3.4.A. Background and Findings

As mentioned above, since April 1, 2011, section 477.5 of the CTA stipulates that any municipality must publish on the Quebec-government–approved SEAO website the list of all contracts involving an expenditure of at least \$25,000. This list must be updated every month.

To comply with the Act, the following information must be published:

- price of the contract
- name of the successful bidder
- purpose of the contract
- name of each bidder
- amount of each bid
- any bid lower than the one selected that was deemed noncompliant
- total amount of the actual cost once work was completed

Furthermore, for a contract involving an expenditure of \$100,000 or more, section 477.4 of the CTA requires all municipalities to produce a contract price estimate before the bids are opened or, if there is no call for tenders, before the contract is awarded. The amount of this estimate must be part of the information published in the SEAO (section 477.5 of the CTA).

In April 2011, the Direction générale produced a directive entitled “Publication des contrats” that specified the standards for publishing contract information in the SEAO. This directive covers subjects such as the roles and responsibilities of business units and mandatory estimates.

The directive states that all borough and central department managers are responsible for enforcing the provisions of the management framework, integrating them into their activities and monitoring them. More specifically, the directive states: *[TRANSLATION]* “The borough or department handling the contract is responsible for entering information on the performance of work related to calls for tenders into the SEAO.”

The directive’s standards for mandatory estimates includes:

- the requirement to produce an estimate for any contract of \$100,000 or more before the bids are opened or, if there is no call for tenders, before the contract is awarded (even if the estimate is produced by an outside consultant)
- the publication of the amount of the estimate in the SEAO only after the bids are opened or, if there was no call for tenders, when the contract is awarded
- the importance of preparing the estimate rigorously

During our audit, we reviewed the information on cost estimates that the DTP entered in the SEAO. For the period from April 1 to September 30, 2011, the DTP entered 44 contracts in the SEAO after they were awarded. These were in fact for calls for tenders issued between April 1 and August 22, 2011. We noted that information on price estimates for these contracts was not published in accordance with the directive issued by the Direction générale. The DTP did not enter cost estimates for the first ten contracts published in the SEAO. For the other 34 contracts, the amount entered as a cost estimate corresponded in fact to the contract price. However, at the time the

contracts were awarded, the DTP reported the detailed control estimate amount in its decision-making summaries. In our opinion, the DTP should have published the amount of these detailed control estimates in the SEAO to comply with the directive issued by the Direction générale, even if they were produced by an outside firm.

#### **3.4.B. Recommendations**

**We recommend that, for contracts of \$100,000 or more, the Direction des travaux publics publish in the electronic tendering system estimated contract prices disclosed in decision-making summaries when the contracts were granted to comply with the *Cities and Towns Act* and with the directive issued by the city manager, “Publication des contrats,” in force since April 2011.**

#### **3.4.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] “SEAO entries are made in accordance with directive C-OG-SDO-D-12-001. A heavy workload can occasionally delay the process a few days longer than the standard 15-day period.” (Planned completion: March 2012)*

### **3.5. POSITION OF THE DIRECTION DES TRAVAUX PUBLICS WITH RESPECT TO A COST ESTIMATING METHODOLOGY**

#### **3.5.A. Background and Findings**

At the time of our audit, the DTP produced two detailed estimates by two separate divisions with different objectives. First, DCRT engineers produce detailed cost estimates before calls for tenders are issued to ensure that the project is still feasible within the allocated budget. They essentially raise questions, since the method used is based on the average historical cost of previous bids and takes into account adjustments made by several resources.

The second detailed cost estimate, or the detailed control estimate, is prepared during the tendering process and is used to verify tender prices. From early 2010 until August 2011, pending the permanent establishment of the DEC, the DTP used the services of a firm specializing in cost estimating to produce these detailed control estimates. Detailed control estimates have been produced at the DEC since August 2011, when the DEC cost estimating positions were filled.

During our audit, we attempted to assess the reliability of detailed estimates as compared to market prices. A comparison of the bids selected reveals that, for 2010, the procedure followed by the specialized firm, like the DCRT's, yielded equivalent results that did not facilitate decision-making. Even if, for the first eight months of 2011, the specialized firm obtained better results than the DCRT, when they were compared with the lowest bids selected, a large number of files (62%) still showed variances exceeding the acceptable threshold (10%) set out in directives issued by the Direction du greffe. Before drawing any hasty conclusions, we must not ignore studies showing that contractors submitting the lowest bid have frequently made allowances for personal and circumstantial factors that cannot be considered when detailed estimates are prepared.

As the averages of the tenders were close to market prices, according to construction economists, we compared the detailed estimates to them. For the period covered by our comparative analysis, better results than those obtained by the DCRT were obtained when detailed control estimates were compared to the average of the tenders. In 2010, 80% of the detailed cost estimates showed a variance that was 10% greater than the average of the tenders received, while for the detailed control estimates, the proportion was 67%. In 2011, these same proportions were 55% for the detailed cost estimates and 49% for the detailed control estimates. However, a large number of files for both types of detailed estimates still showed variances that were 10% higher than the average of the tenders received. With such results, we cannot assert without a doubt that the prices of detailed control estimates are markedly more representative of the market than those of detailed cost estimates, as we would expect, even if the purposes are different.

It should also be noted that some studies prefer using an adjusted bid average to explain the market. This method excludes the lowest and highest bids, which eliminates the disruptive effects of extreme data. According to experts, the adjusted average is closer to the actual cost of the work and would therefore be more representative for comparing detailed estimates.

However, in view of the results observed after comparing the two detailed estimates with both the lowest bid and the average bid, it is reasonable to ask certain questions:

- Did the specialized firm change its procedure during 2011?
- Did market prices change between 2011 and 2010?
- Do the new rules proposed in 2009 and 2010 to counteract collusion lead to lower prices for work?

It is possible that the market is currently in an adjustment period and will regulate itself in the short term as a result of various measures adopted by the city and the provincial legislature. Whatever the reasons for the variances that arose during this period, we believe that both procedures must be reviewed in the light of the actual results.

Of course, the use of a specialized construction economist firm over a 17-month period helped put into perspective the use of a new methodology based on the concept of fair value. Although this method is different from the method that DCRT engineers have been using for several years, we believe that the DTP should further refine its procedure so that detailed control estimates become a more obvious reference for reassuring elected officials when a lowest bidder is recommended.

At the time of our audit, the DEC was not yet fully operational because all the vacant positions had not yet been filled. However, since the end of 2011, the new team of experts under the supervision of an engineer construction economist, consists of four cost estimating experts who are in the process of obtaining a certification from the Association of Estimators and Quantity Surveyors of Québec (AEQSQ). Furthermore, as the specialized firm's contract ended in August 2011, a new \$300,000 contract was recently awarded to the same firm after a second public call for tenders was issued in the summer of 2011. According to the DTP, cost estimating contracts will be awarded to the specialized firm when its internal resource capacity is no longer sufficient to handle the scope of the contract, its specific characteristics or the volume of the work to be done. We believe that the DTP must still be responsible for producing detailed control estimates in order to have control over the process.

Furthermore, in view of DEC staff training and expertise and its independence from the other DTP divisions, we believe that its responsibilities are likely to increase over the next few months.

According to the information obtained, when the DEC was created, the DTP wanted to devise a methodology and produce detailed control estimates in a manner totally independent from the methods used previously. However, we think it would perhaps be desirable to include the DEC as soon as possible in the cost estimating process, from the project design phase until the call for tenders is issued. This practice would help differentiate the duties of engineers from those of cost estimating specialists. This would ultimately allow the production of a single, final version of the detailed cost estimate that could be used for both budgeting and tenders analysis. However, if the DTP is still in favour of keeping two divisions for the preparation of detailed cost estimates, the DEC should then provide the necessary tools and expertise to make detailed cost estimates more reliable. The DEC could also supervise quality control of detailed cost estimates produced by the DCRT.

In the short term, it would be desirable for the DEC to analyze the twenty or so detailed reports obtained from the specialized firm to discover possible ways of improving the methodology supporting the cost estimating process (e.g., determining quantities).

In addition, after calls for tenders are issued, the DEC should analyze the bids received. Since under the CTA the contract must be awarded to the lowest bidder, this analysis would of course involve determining and explaining variances between the detailed control estimate and the lowest bid, which is also a requirement of the directives issued by the Direction du greffe. The DEC should also look into the possibility of comparing its detailed control estimates with the adjusted mean when variances are analyzed and accounted for. Moreover, because of the independent nature of the DEC, we think that the manager in charge (construction economist) should confirm the explanations given for variances and add a response to that effect to the decision-making summary produced when recommendation for awarding contracts are given.

We also think that the DEC should require that the DCRT prepare accurate, detailed site reports over a period considered representative so that it will have reliable databases for producing future detailed cost estimates.

To preserve the independence of the DEC, we believe that the cost estimating duties within the division itself should be carried out by people other than those conducting the variance analysis. Furthermore, to offset any appearance of a threat to this independence, it would be well to remember that the Service du contrôleur général, because of its contract audit responsibilities, can intervene on an ad hoc basis at any time to ensure that the process is secure.

In conclusion, we believe that the DTP must take the necessary steps, as quickly as possible, to devise a methodology for establishing cost estimates that are representative of the market and useful for decision-making.

### **3.5.B. Recommendations**

**We recommend that the Direction des travaux publics take the appropriate steps to design a methodology for establishing detailed cost estimates that reflect the reality of the market to facilitate decision-making. To do this, the Direction des travaux publics must, in particular:**

- A) specify the responsibilities of engineers within the Division conception et réalisation des travaux, and of specialized resources within the Division de l'estimation des coûts with respect to the preparation of cost estimates**
- B) analyze items mentioned by the specialized firm in its detailed cost estimate reports for projects covered by its mandate**
- C) study the possibility of having the Division de l'estimation des coûts confirm explanations for variances in decision-making summaries related to recommendations for awarding contracts**
- D) take the appropriate steps to ensure that the Division conception et réalisation des travaux sends accurate, detailed site reports to the Division de l'estimation des coûts so that it will have reliable standards for preparing future cost estimates**

- E) specify the role of the Division de l'estimation des coûts in exercising quality control over the methodology devised with good cost estimation practices, in view of the responsibilities of the Division conception et réalisation des travaux

### 3.5.C. Action Plan of the Relevant Business Unit

[TRANSLATION] "The process of establishing the new DEC was completed in the fall of 2011. The methodology adopted by the new team will be in accordance with generally recognized good practices in this field."

- A) [TRANSLATION] "Several presentations have already been given by the director and managers in charge of employees to outline DCRT engineers' responsibility vis-à-vis control estimates. Because of the arrival of new staff in 2011, another series of meetings between employees and managers will be held in 2012." **(Planned completion: September 2012)**
- B) [TRANSLATION] "Many of the projects that were discussed in the firm's report are completed. The points raised by the firm will be reviewed for processing, if applicable." **(Planned completion: September 2012)**
- C) [TRANSLATION] "Efforts are already under way to enable the DEC to include opinions on estimates in the GDD." **(Planned completion: September 2012)**
- D) [TRANSLATION] "In January 2012, the DEC and the DCRT began discussions about gathering productivity information from worksites that can be used for DEC estimates. This information will support DEC estimates and, in the long run, the design team's estimates. Several discussions and meetings will be planned to establish a methodology for gathering relevant, sufficient and usable information. The worksite data compiled will later be processed and integrated into cost estimating processes." **(Planned completion: August 2013)**
- E) [TRANSLATION] "Since the process of setting up the DEC team was completed in the fall of 2011, its work is now focusing on the last phase of implementation. The DEC will support the DCRT. On the subject of the DEC's role of ensuring quality

*control of DCRT processes and estimates, this point will be clarified when implementation of the cost estimating processes is completed at both the DEC and the DCRT. At present, the DEC does not have sufficient resources for this task, and additional work will be required to establish a quality control system. If this approach is considered, it will be necessary to plan for the additional resources required.”*  
**(Planned completion: August 2013)**

# V.4. Payment Term Management



**Vérificateur général**  
de la Ville de Montréal



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## LIST OF ACRONYMS

CSEM	Commission des services électriques de Montréal	SPVM	Service de police de la Ville de Montréal
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## V.4. PAYMENT TERM MANAGEMENT

### 1. INTRODUCTION

In August 2006, following a municipal reorganization, the Ville de Montréal (the city) adopted its first procurement policy, with improvement of economic efficiency as one of the underlying principles. Five years later, in September 2011, the executive committee adopted a revised procurement policy as well as a new business model for procurement aimed mainly at generating savings.

The value of goods and services acquired as well as work carried out by the city exceeds a billion dollars annually. In 2011, for example, the purchases made by the city were valued at \$1,884,807,786.<sup>1</sup>

From the purchases made, the services required and the work contracted out by the city result a considerable number of transactions, trade agreements and contracts with various suppliers, making of the city a highly valued partner holding an important purchasing power.

According to the data retrieved from the SIMON system,<sup>2</sup> there were approximately 41,700 active suppliers registered in the supplier file in October 2011. If we subtract internal suppliers and employees from this number, we get an estimated total of 31,422 external suppliers. Year after year, business units place a large number of purchase orders with these suppliers to obtain goods and services. In 2011, they issued 143,646<sup>3</sup> purchase orders. This number does not include other transactions completed without a purchase order due to their value or nature. Whether purchases were made with or without purchase orders, there was still an average of over 30,000 invoices handled every month following reception of goods and services.

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<sup>1</sup> Source: Purchase statistics from purchase orders received by the Direction de l'approvisionnement.

<sup>2</sup> Ville de Montréal integrated management system.

<sup>3</sup> Source: Purchase statistics from purchase orders received by the Direction de l'approvisionnement.

In this context, the city can profit from its prominent position as a buyer to generate savings, and also when it comes to paying its suppliers. Payment term management is a logical part of financial resource optimization because effective management of payment terms can contribute to optimizing outflows by allowing the city to save money through discounts and avoid losing money due to penalty fees. In addition, strict compliance with payment terms allows the city to benefit from extensions from suppliers while limiting the number of complaints that may negatively affect the city's image as a client.

The involvement of several responsibility centres (in central departments and boroughs) complicates the invoice processing and payment process, leading to potential delays that could result in the loss of purchase discounts granted by suppliers.

Given that a new procurement policy has just been approved and that the business model associated with it stipulates that the city must review its goods and services purchasing practices to fully benefit from its purchasing power and realize savings, we feel that it is appropriate to examine payment term management in order to be in a strong position.

## **2. AUDIT SCOPE**

The purpose of our audit was to evaluate the extent to which payment term management allows the city to save through discounts. We examined the time it took to record, verify and pay invoices as well as controls over the recording of payment terms. We also looked at the existence of objectives and management reports, the distribution of cheques after they are issued as well as strategies put in place to obtain discounts when payments are made.

Our audit, which was begun in fall 2011, dealt mainly with the first 11 months of the 2011 fiscal year. While our work was focused on the Service des finances, we were particularly interested in analyzing invoice payment times for which discount terms were available. For our analysis, we selected invoices related to goods and services bought by seven business units:

- Service de sécurité incendie de Montréal
- Service de l'eau
- Direction des immeubles
- Direction du matériel roulant et des ateliers
- Montréal-Nord borough
- Anjou borough
- Verdun borough

Our audit also dealt with invoices with an “immediate” payment term.

### **3. FINDINGS, RECOMMENDATIONS AND ACTION PLANS**

Payment terms result from general terms binding a supplier (seller) to its client (buyer) for intercompany credit represented by time allowed for payment. Payment terms may be freely determined at the supplier’s discretion or negotiated by the co-contractors. They facilitate cash flow through set payment terms, which, when adhered to, enable the client to benefit from discounts or avoid late payment fees.

City suppliers must select the payment terms of their choice when they register in the supplier file as it is a mandatory field. A list containing 41 different payment terms has been compiled over time in the SIMON supplier file:

- 28 discount payment terms
- 1 “immediate” payment term
- 12 payment terms with no discount

Out of a collection of close to 367,143 invoices paid during the first 11 months of 2011, we also broke down the use of these 41 different payment terms (see appendix 4.1). Examination of this collection shows the following distribution of invoices:

- 16,867 invoices (4.6%) with discount payment terms
- 127,714 invoices (34.8%) with the “immediate” payment term
- 222,562 invoices (60.6%) with no discount payment terms

Such results show not only that the proportion of invoices with discount is low (4.6%), but also that they were not systematically paid in time to benefit from the discounts (see appendix 4.1). In fact, the sum of discounts obtained, \$52,806, represents only 35% of the maximum amount of discounts possible (\$151,947). This amount was obtained by applying the various discount rates on the total amount of the invoices for which suppliers had offered discount payment terms, i.e., \$8,485,528. These invoices represent less than 1% of the value of purchases made in 2011.

Furthermore, these results show that a significant portion of invoices paid, i.e., 34.8% of the total, were registered with the “immediate” payment term. At first sight, it would seem that with such a payment term, these invoices should be paid as soon as they are received without any incentive compensation.

Lastly, more than half of the invoices paid (60.6%) have no discount payment terms and therefore do not provide any savings in this respect.

To evaluate what measures the city takes to realize savings through discounts, we first examined payment term management using invoices with discount payment terms. While this group of invoices represents a small portion of the total purchases, based on the results presented, the procedures in place did not enable the city to benefit from the discounts offered by suppliers. Our audit will therefore highlight the problems surrounding such a situation. It goes without say that these problems are also likely to apply to payment term management of invoices with no discount payment terms. Subsequently, we took a closer look at the invoices registered with an “immediate” payment term. We also looked at the existence of management objectives and reports as well as the practices for remitting cheques to recipients. In addition, we explored possible improvements so the city could not only maximize the discounts to which it is entitled, but also be in a position to negotiate discount payment terms with other suppliers.

### 3.1. PAYMENT TIMES FOR INVOICES WITH DISCOUNTS

#### 3.1.A. Background and Findings

The purpose of payment term management is to ensure that suppliers are paid within the allotted time period and that the appropriate steps are taken to benefit from discounts offered for making a payment within a shorter period. For example, a payment term of “2/10, net 30” means that in order to obtain a 2% discount, the invoice must be paid within a maximum of 10 days from the invoice date. If the invoice is paid after this period, the discount is lost.

By definition, payment term is the number of days between the date the invoice is produced by the supplier and the date of the cheque. The average payment time for all invoices in the first 10 months of 2011 (all payment terms combined) was 42.7 days,<sup>4</sup> so we compared this period with the average payment times for each of the 28 discount payment terms. The figures in Table 1 show that the average payment time for invoices with discount payment terms (36.6 days) is shorter than the payment period for all of the invoices in the first 10 months (42.7 days).

However, average payment times largely exceed the maximum periods allowed by suppliers (e.g., net 30 days) for most of the payment terms (19/28 or 68%), making it impossible for the city to benefit from discounts. In fact, the city is even exposing itself to penalties. For 5 payment terms out of the 28 (18%), the average payment times did not exceed the maximum term allowed by the suppliers, but they did exceed the period within which a discount could be obtained (e.g., 2% for payment within 15 days). For 4 payment terms out of the 28 (16%), calculation of the average payment times did not provide us with any evidence that payments had been made in time to receive a discount.

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<sup>4</sup> Source: Statistical report on payment terms produced by the Division de la vérification et du paiement des factures of the Service des finances.

**Table 1—Average Payment Times for  
Discount Payment Terms  
(First 11 Months of 2011)**

<b>Index</b>	<b>Discount payment terms</b>	<b>Average payment time (days)</b>
T1	0.5% 10 days, net 30 days	35.3
T2	1% 10 days, net 30 days	34.6
T3	1% the 10th of the following month, net the 20th of the following month	28.4
T4	1% 15 days, net 30 days	35.5
T5	1% the 15th of the following month, net 30 days	42.0
T6	1% 20 days, net 30 days	34.6
T7	1% 30 days, net 30 days	40.4
T8	1% the 15th of the following month	44.5
T9	1.25% 10 days, net 30 days	41.8
T10	1.5% 10 days, net 30 days	80.2
T11	10% 30 days, net 30 days	47.1
T12	2% 10 days, 1% 15 days, net 30 days	24.1
T13	2% 10 days, net 30 days	42.5
T14	2% 10 days, net 90 days	91.0
T15	2% 15 days, net 30 days	37.1
T16	2% 30 days, net 31 days	36.9
T17	2% 30 days, net 45 days	34.8
T18	2% 30 days, net 60 days	36.6
T19	2% 5 days, net 30 days	26.0
T20	2% the 10th of the following month, net 30 days	36.6
T21	2% the 15th of the following month	41.0
T22	2% the 15th of the following month, net 30 days	39.2
T23	2% the 20th of the following month	36.2
T24	2.2% 30 days, net 30 days	180.0
T25	3% 15 days, net 30 days	20.5
T26	3% on reception, 2% 10 days, 1% 15 days, net 30 days	47.2
T27	5% 10 days, net 30 days	62.8
T28	7% the 20th of the following month	81.0
<b>Average payment time for discount payment terms</b>		<b>36.6</b>

To help interpret this overview of average payment times, we wanted to determine the portion of invoices for which a discount was obtained relative to those for which one had not been obtained. Our audit revealed that, out of a total of 16,867 invoices with discount payment terms, 46% (7,812) had been paid within the discount period.

Conversely, 54% (9,055) did not enable the city to benefit from a discount because they were not processed within the discount period.

Given these results, we decided to take a closer look at the actual payment times. This involved an initial review of how invoices were processed for payment. The following administrative frameworks govern invoice processing:

- [TRANSLATION] Directive on task division – Procurement, receiving and payment activities, approved by the city manager (administrative framework C-RF-SFIN-D-11-003, last updated on December 7, 2011)
- [TRANSLATION] Procedure for receiving goods and services, approved by the assistant to the senior manager of the Service des finances (administrative framework C-RF-SF-P-09-005, effective October 2009)
- [TRANSLATION] Procedure for decentralized invoice entry, approved by the manager of the Division de la comptabilité et du contrôle financier of the Service des finances (administrative framework C-RF-SFIN-P-11-002, last updated on December 6, 2011)
- [TRANSLATION] Directive on processing invoices and issuing cheques, draft administrative framework whose effective date was set for January 1, 2006.

On reading these frameworks and the documents on the Service des finances intranet, we noted that invoice processing can be quite different depending on whether the invoice has a purchase order or not, which is likely to have an impact on the payment time. Once invoices are entered in SIMON, whether they have a purchase order or not, the system calculates payments times. However, in every case, it is the Service des finances that consolidates all payments.

For **invoices with a purchase order**, requesting business units have previously entered the purchase orders and delivery of goods and services in SIMON. The draft directive on invoice handling and cheque issuing provides that any invoice associated with a purchase order entered in SIMON must subsequently be sent to the Service des finances, according to the instructions given by the requesting unit when the order is placed. The Division de la vérification et du paiement des factures processes invoices as follows:

- Receipt of invoice.
- Distribution of invoices to office clerks for batch entry.
- Input of invoices in SIMON (date, quantities, prices, etc.).
- Matching of invoices with purchase orders and reception slips previously entered by the requesting business unit.
- Validation of invoices, making them eligible for payment.

The automatic matching of the purchase order, delivery receipt and invoice is necessary to allow the cheque to be issued. When there is information missing, the system places a hold on the invoice and no payment is possible. To resolve these holds, an alert indicating the existence of and reason for the hold is sent to the requesting business unit.

For example, a hold may be placed for these reasons:

- The quantity invoiced is higher than the quantity received.
- The quantity invoiced exceeds the quantity ordered.
- All the components of the purchase order have already been billed.

The invoice is released by the system once the business unit has corrected the discrepancy that created the hold, thereby making payment possible.

With regard to the **invoices without a purchase order**, these are associated with the types of payments and maximum amounts described in Table 2.

**Table 2—Invoices without Purchase Orders:  
Types of Payments and Maximum Amounts**

Type of payment	Maximum amount
<b>External suppliers</b> <ul style="list-style-type: none"> <li>• Purchase of goods and services</li> <li>• Artists</li> <li>• Work ticket correction</li> <li>• Election expenses, allowances, research costs</li> <li>• Lawsuits</li> <li>• Public utilities: electricity, telephone, Gaz Métro, etc.</li> </ul>	\$1,000 \$5,000 None None None None
<b>External suppliers – Limited access</b> <ul style="list-style-type: none"> <li>• Snow removal workers – boroughs of the former suburban municipalities</li> <li>• Biodôme, Botanical Garden, Insectarium</li> <li>• Books for municipal libraries</li> </ul>	\$25,000 \$10,000 None
<b>Expense reimbursements</b> <ul style="list-style-type: none"> <li>• Official expenses</li> <li>• Travel expenses</li> <li>• Petty cash</li> <li>• Reimbursement of employees' expenses</li> </ul>	\$15,000 \$50,000 \$5,000 \$1,000
<b>External payees</b> <ul style="list-style-type: none"> <li>• Subsidies or financial contributions</li> </ul>	None

Source: [TRANSLATION] *Procedure on the receiving of goods and services*, effective October 2009.

These invoices are processed by the requesting business units (boroughs and central departments) according to the payment request procedure as follows:

- Receipt of invoice.
- Distribution of invoice to the unit.
- Preparation of payment request form.
- Matching of payment request to the related invoice and reception slip.
- Approbation of manager in charge.
- Verification of payment request, invoice and delivery slip by financial resources personnel.
- Input of invoices batch into the [TRANSLATION] “decentralized invoice entry” module.
- Electronic approval by authorized manager.

Once the payment request is processed, the request is automatically transferred to the accounts payable unit of the Service des finances, which will ultimately issue the cheque by the deadline indicated in the payment terms on the invoice.

Considering that invoice processing differs depending on whether there is a purchase order or not, we looked at the average payment terms for each of these processes, for each discount payment term.

Among the 16,867 invoices with discount payment terms, we found that invoices with a purchase order represented 94% of the total number, while those without a purchase order represented only 6% (see Table 3). The results of this comparison also revealed that the average payment term was longer for invoices with a purchase order, i.e., 36.9 days, compared to an average payment term of 33.1 days for invoices without a purchase order.

However, although invoices without a purchase order seem to be processed and paid faster, the maximum payment time and discount period established by the supplier was respected for only one payment term out of the 19 (5%). For 4 payment terms out of 19 (21%), the suppliers' maximum payment term was respected but the payment was made after the discount period. For most payment terms (11/19 or 58%), the city did not comply with the suppliers' maximum payment term (e.g., net 30 days) or the discount period (e.g., 10 days, 15 days). Lastly, for 3 payment terms out of 19 (16%), the calculation of the average payment term did not provide us with any evidence that payments were made within the discount period.

**Table 3—Average Payment Times for Discounted Invoices  
with or without Purchase Orders  
(First 11 Months of 2011)**

Index	Payment term with discount	Invoices with purchase orders		Invoices without purchase orders	
		Average payment time (days)	Number of invoices	Average payment time (days)	Number of invoices
T1	0.5% 10 days, net 30 days	35.3	3	0.0	0
T2	1% 10 days, net 30 days	35.1	729	27.8	61
T3	1%, the 10th of the following month, net the 20th of the following month	28.4	35	0.0	0
T4	1% 15 days, net 30 days	35.5	284	0.0	0
T5	1% the 15th of the following month, net 30 days	38.7	60	55.3	15
T6	1% 20 days, net 30 days	34.6	484	47.5	2
T7	1% 30 days, net 30 days	41.2	38	30.3	3
T8	1% the 15th of the following month	44.4	255	49.7	4
T9	1.25% 10 days, net 30 days	41.8	181	0.0	0
T10	1.5% 10 days, net 30 days	84.2	4	64.0	1
T11	10% 30 days, net 30 days	44.9	9	67.0	1
T12	2% 10 days, 1% 15 days, net 30 days	24.1	1,972	37.0	1
T13	2% 10 days, net 30 days	44.5	1,263	25.8	149
T14	2% 10 days, net 90 days	91.0	1	0.0	0
T15	2% 15 days, net 30 days	37.7	2,032	31.0	189
T16	2% 30 days, net 31 days	33.1	39	42.9	24
T17	2% 30 days, net 45 days	34.8	1,863	35.0	51
T18	2% 30 days, net 60 days	45.0	19	28.6	12
T19	2% 5 days, net 30 days	26.0	1	0.0	0
T20	2% the 10th of the following month, net 30 days	36.8	1 613	34.2	188
T21	2% the 15th of the following month	41.1	3,487	37.0	88
T22	2% the 15th of the following month, net 30 days	39.2	678	37.6	8
T23	2% the 20 of the following month	36.6	663	35.0	233
T24	2.2% 30 days, net 30 days	180.0	2	0.0	0
T25	3% 15 days, net 30 days	20.5	12	0.0	0
T26	3% on reception, 2% 10 days, 1% 15 days, net 30 days	46.7	103	96.0	1
T27	5% 10 days, net 30 days	72.2	4	25.0	1
T28	7% the 20 of the following month	81.0	1	0.0	0
<b>Average payment time for discount payment terms</b>		<b>36.9</b>	<b>15,835 (94%)</b>	<b>33.1</b>	<b>1,032 (6%)</b>

In light of these results, we decided to take a closer look at the actual payment times on a sample of 28 invoices from seven business units. For one of the business units, we looked at four invoices without a purchase order, and for each of the six other units, we reviewed four invoices with a purchase order. Our sample also included seven invoices

for which the city obtained a discount—1 invoice for each business unit—and 21 invoices for which the city did not obtain a discount. The invoices in our sample were divided as shown in Table 4, based on the actual payment times, i.e., the difference between the date of the invoice and the payment date.

**Table 4—Actual Payment Times for the 28 Invoices in Our Sample  
(First 11 Months of 2011)**

Payment time (days)	Number of invoices for which a discount was obtained		Number of invoices for which a discount was not obtained	
	With purchase order	Without purchase order	With purchase order	Without purchase order
0 to 10	1			
11 to 20	1			
21 to 30	1	1	6	1
31 to 40	2		2	1
41 to 50	1		4	1
51 to 60			1	
61 to 70			1	
71 to 80			3	
81 to 90			1	
<b>Total number of invoices</b>	<b>6</b>	<b>1</b>	<b>18</b>	<b>3</b>

Actual payment terms were analyzed by comparing different dates: invoice date, date invoice was received, date invoice was entered in the system, hold date, release date and cheque date. This analysis allowed us to calculate the term between invoice reception, entry, hold and release and payment. In the sections that follow, we will detail our observations from the tests performed for the 28 invoices selected (see Appendix 4.2).

### RECEPTION TIME

Reception time is the difference between the date on the invoice and the date it is received by the business unit. We began by looking at these periods to assess to what extent they were due to the city and to the supplier.

Our audit revealed the following results:

- 19 of the 28 invoices (68%) displayed no evidence of the date on which they were received.
- 9 of the 28 invoices (32%) showed the date they were received:
  - Among those for which the city was not able to obtain a discount:
    - 3 invoices displayed a stamped date corresponding to a reception time of more than 10 days from the invoice date (12, 19 and 38 days for Tests 13, 8 and 9).
    - 2 invoices displayed a stamped date corresponding to a reception time of 5 to 7 days from the invoice date (Tests 11 and 10).
    - Invoices without a purchase order were not received in a shorter time than those with a purchase order.
  - Among those for which the city was able to obtain a discount:
    - 3 invoices displayed a stamped date corresponding to a reception time of 6 to 7 days from the invoice date (Tests 1, 2 and 7).
    - 1 invoice displayed a stamped date one day later than the invoice date (Test 6).

For invoices with a stamped date, we found that the five invoices received within five to seven days do not allow us to directly link these reception times to the possibility of obtaining a discount. In fact, in three cases, a discount was obtained, while in the two other cases, it was not. However, for the three invoices received more than ten days after the invoice date, we found that the discount had been lost. In two of these cases, the invoice was received after the discount period, i.e., 19 and 38 days after the invoice date.

Such a situation could be explained by the fact that certain suppliers do not always send out their invoices promptly after they are issued. It could also be due to the fact that the business units to which the suppliers send their invoices do not stamp invoices received straightaway. We were unable to clearly determine if it was the suppliers or the business units that caused the delay. However, reception times of 12, 19 and 38 days lead us to believe that the responsibility is shared.

If it is determined that the suppliers are responsible for delays in receiving invoices, we feel that steps should be taken with them to ensure that they send their invoices to the city promptly so that it can benefit from discounts (e.g., receiving invoices online). However, we feel that in order to take such measures, the reception date must be systematically and promptly stamped.

If, however, it is shown that part of the delay is caused by the business units, they should be made aware of the importance of reducing this period as much as possible, since the earlier it is received, the better the chances of obtaining the available discount.

### **ENTRY TIME**

Invoices are entered into SIMON by either the Service des finances or the business units, depending on whether or not there is a purchase order. Entry time is the difference between the date the invoice is received and the date it is entered in SIMON. We were unable to calculate the difference between these two dates for all of the invoices because a large portion of them did not display any evidence of their reception date. We were, however, able to obtain the following results:

- Among the 7 invoices for which a discount was obtained:
  - 2 invoices (28.5%) were entered within the discount period, i.e., 10 days or 15 days, depending on the case (Tests 4 and 6).
  - 3 invoices (43%) were entered within 4 to 11 days of reception; one of these had no purchase order (Test 1), and the other two (Tests 2 and 7) had a purchase order.
  - 2 invoices (28.5%) were entered within 23 days (Test 5) and 43 days (Test 3) of the invoice date; for these two cases, the discount could be obtained by paying before the 15th of the following month.
- Among the 21 invoices for which a discount was not obtained:
  - 3 invoices (14%) without a purchase order were entered within 1 to 13 days of the reception date (Tests 8, 9 and 10); for two of these cases (Tests 8 and 9), the discount had already been lost by the time the invoice was received.
  - 2 invoices (10%) with a purchase order were entered within 29 days (Test 11) and 65 days (Test 13) of the invoice reception date.

- 15 invoices (71%) with a purchase order were entered after the discount period (10, 15, 20 days or the 10th of the following month for Tests 12, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27 and 28).
- 1 invoice (5%) was entered within the discount period calculated using the invoice date (Test 16).

The seven invoices for which a discount was obtained were entered within a period varying between 4 days of the reception date and 43 days of the invoice date. This shows that it is indeed possible to pay invoices within the period required to obtain a discount. However, in the case of the invoice that was paid in 43 days (Test 3), the discount may have been obtained because the discount period was longer (15th of the following month).

As for the 21 invoices for which a discount was not obtained, our findings disregarded two invoices for which the discount had already been lost by the time the invoice was received. For the 19 other invoices, we found that the entry times were too long for the city to obtain a discount. In order to improve the process, we wanted to determine which business units were involved. The three invoices without a purchase order were received and processed by the requesting business unit, making it responsible for the delay. For the 18 invoices with a purchase order, however, we noted two problems.

The first is that not all of the invoices were received by the Service des finances first, as is set out in the directive on processing invoices and issuing cheques. Some invoices were received by the requesting business units before being sent to the Service des finances for entry into SIMON. Such a practice extends entry times and reduces the chances of obtaining the discounts offered by suppliers. According to the information obtained, close to 50% of invoices with a purchase order are received by the business units instead of being sent directly to the Service des finances.

As we mentioned above, this practice goes against the draft directive on processing invoices and issuing cheques. Therefore, as the Service des finances is responsible for ensuring compliance with this directive and related procedures as well as evaluating it regularly, we believe it should assess the impact of this practice on payment and

discount periods in order to recommend the best way to proceed. If the results reveal that it is still appropriate for all the invoices with a purchase order to be sent to the Service des finances, a reminder should be sent to the business units to comply with the directive. If, however, the results show that payment times could be shorter if the business units received certain invoices (e.g., for professional services), the directive should then be modified to reflect this. Either way, we feel that the Service des finances should take the proper steps to have this directive officially approved following modification.

The second problem is that the Service des finances processes invoices with a purchase order (purchase of goods and services) below \$1,000. We should point out that when the requesting business units acquire goods and services, they have a choice, because of the monetary limit, to enter these invoices themselves in the [TRANSLATION] “decentralized payment entry” module or to create purchase orders. If they opt for the second choice, this creates an increased workload for data entry staff in the Service des finances and may have an impact on payment times. Among the 18 invoices in our sample for which a discount was not obtained, 11 of them were below the \$1,000 limit. We feel that the Service des finances, as the body responsible for the implementation and follow-up of the decentralized data entry procedure, should assess the relevance of requiring the requesting business units to use decentralized data entry for invoices. Accordingly, the Service des finances should also assess the relevance of increasing the monetary limit related to decentralized data entry for invoices.

While not observed in our sample, another problem was brought to our attention. According to the information obtained, some suppliers send invoices to the Service des finances without making reference to the purchase order number issued by the requesting business unit. This practice is said to have caused invoice entry delays because, in such cases, steps have to be taken to contact the business units and have them create the purchase order or provide the corresponding number and enter the goods and services in SIMON. An invoice is only eligible for payment once these documents have been matched. A memorandum regarding this problem was sent by the Service des finances to the business units in December to inform them of the proper practice and that as of February 2012, invoices without a reference to a purchase order

would be returned to the supplier. We believe that the Service des finances should closely monitor this practice so that corrections can be made.

### **HOLD AND RELEASE TIMES**

Automatically matching the purchase order, reception slip and invoice is required for the cheque to be issued. When there is missing information, the system places a hold on the invoice and no payment is possible. The hold and release time is the difference between the hold date and the release date. This delay occurs after the invoice is entered by the Service des finances and before its payment. We wanted to determine to what extent these delays contributed to not obtaining discounts. We found that 5 of the 28 invoices examined (17%) had been put on hold following their entry in SIMON. Two of these invoices were released the same day, two others within one day and one within 13 days (Test 28).

Based on our sample, we concluded that, in general, actions are taken quite promptly by the requesting business units to release the invoices. However, because we found one case in which the delay was longer, we feel that the resolution of these holds should be closely monitored.

### **CHEQUE ISSUING TIME**

Once the invoice is entered in SIMON, the system manages payment times and dates. A cheque is issued four to five days before the due date. Cheque issuing time is the difference between the date the invoice becomes eligible for payment and the date the cheque is issued.

We observed that in 3 cases (Tests 10, 17 and 25) out of the 28 (11%), the invoice became eligible for payment on the last day the city could have obtained a discount. For these cases, we feel that the reception and entry times were not managed efficiently enough to allow the city to benefit from the discounts offered by the suppliers.

In conclusion, our analysis of the actual paying times indicates that payment terms are not followed in most cases. These periods are sometimes greatly exceeded, to the point of destroying any possibility of obtaining a discount. The measures put in place to enable the city to achieve savings through purchase discounts are inadequate and not sufficiently effective.

There is no specific procedure in place to identify and promptly process invoices with a discount. This applies both to business units and the Service des finances. The business units are not aware of the importance of taking measures to allow the city to benefit from discounts. They do not see the value because they do not get the returns from the savings achieved.

We found, however, that if the invoices are promptly processed, it is quite possible to obtain the discounts offered by suppliers. For this reason, invoice processing should be reviewed to ensure not only that the maximum savings are realized, but also that there is better management of payment terms, thereby improving the city's image as a "payer."

We noted a clear interest on the part of the manager of the Division de la vérification et du paiement des factures of the Service des finances to improve invoice processing in order to reduce payment times. This was demonstrated by the creation of a working committee on improving invoice processing in December. It is made up of the Service des finances and individuals in charge of financial resource management for a few business units. Two meetings have been held to educate business units with a view to standardizing practices. We encourage the Service des finances to continue with this initiative.

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

**We recommend that the Service des finances take the necessary steps to reduce invoice payment times so that the city may benefit from the discounts offered by suppliers. These steps should include the following:**

- **Ensure that all business units systematically indicate the invoice reception date to allow for subsequent analysis of payment times.**

- Ensure that all business units encourage suppliers to send their invoices as quickly as possible.
- Process invoices from suppliers promptly to reduce reception times as much as possible.
- Assess the impact on payment times of having invoices with a purchase order go through the business units before being sent to the Service des finances for entry and determine, if applicable, any changes to be made to this method of operation.
- Assess the suitability of requesting business units using decentralized invoice entry for the relevant payment types and amounts.
- Assess the possibility of increasing the monetary threshold for decentralized invoice entry.
- Regularly assess the impact on payment times of any other problem related to processing invoices and issuing cheques.
- Closely monitor invoice holds in SIMON and take the necessary steps with the business units.
- Modify the administrative frameworks on processing invoices and issuing cheques as need be and have them approved by the necessary authority.

### **3.1.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] “To educate business units on the recommended best practices, the Direction de la comptabilité et du contrôle financier regularly meets with the financial resource managers of all the business units to discuss shared problems. We will use these meetings to inform our clients of the importance of improving invoice processing. (Planned completion: May 2012)*

*In addition, the working committee on improving invoice processing struck at the end of 2011 will continue to meet in 2012 to find ways to improve practices, including:*

- *increasing and enforcing the use of decentralized invoice entry for certain categories of expenses*
- *assessing the possibility of increasing decentralized invoice entry monetary limits. (Planned completion: a first report on changes made will be produced by June 2012)*

*We will create management reports in the Bureau d'affaires (repository for data from the 'procurement' and 'finances' business sections in SIMON) to highlight our follow-up with clients on:*

- *invoice holds*
- *supplier payment times.” (Planned completion: October 2012)*

### **3.2. PAYMENT TIMES FOR INVOICES WITH AN “IMMEDIATE” PAYMENT TERM**

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

Among the 41 payment terms available in SIMON, we noted the existence of an “immediate” payment term. This means that payment of invoices with this payment term is required upon reception of the invoice with no incentive advantages for the city.

In the course of our audit, we wanted to evaluate the number of invoices from external suppliers registered with such a payment term, as well as their actual payment time. This choice is justified by the fact that external suppliers are the category from which the city can reasonably be expected to negotiate discount payment terms.

The total number of invoices paid according to the “immediate” payment term is 127,714, or 34.8%, of the total number of invoices paid during the 11-month period ending November 23, 2011. To focus our audit solely on suppliers of goods and services, since this is the category from which the city may obtain discount payment terms, we eliminated employee and internal invoices (e.g., the Service de police de la Ville de Montréal [SPVM], the Commission des services électriques de Montréal CSEM). Accordingly, 52,601 invoices, or 41%, of invoices with an “immediate” payment term, were included in our analysis. These invoices include both public utility service suppliers (e.g., Bell, TELUS, Hydro-Québec, Gaz Métro) as well as other external suppliers of goods and services.

We then divided these by level based on their actual payment term (see Table 5). Examination of the figures in this table reveals the following conclusions:

- Less than 1% of invoices with an “immediate” payment term are actually paid on the date indicated.
- 16% of this type of invoices are paid within 1 to 10 days, for a total average payment term of 6 days, and 9% are paid within 11 to 15 days.
- 29% of this type of invoices are paid within 16 to 30 days.
- 45% of invoices with an “immediate” payment term are paid after more than 30 days, with an average of 77 days.

**Table 5—Average Payment Times for Invoices with the “Immediate” Payment Term (External Suppliers of Goods and Services) (First 11 Months of 2011)**

	<b>Payment the same day</b>	<b>1 to 10 days</b>	<b>11 to 15 days</b>	<b>16 to 30 days</b>	<b>&gt; 30 days</b>	<b>Total</b>
Number of invoices	453	8,508	4,962	15,032	23,646	52,601
<b>% of invoices</b>	<b>1%</b>	<b>16%</b>	<b>9%</b>	<b>29%</b>	<b>45%</b>	<b>100%</b>
<b>Average payment time</b>	<b>0 day</b>	<b>6 days</b>	<b>13 days</b>	<b>23 days</b>	<b>77 days</b>	<b>44 days</b>

These figures show that 13,923 invoices (26%) were paid within an actual period of 15 days. It is therefore possible to pay invoices in a relatively short time. In fact, if it was possible to pay 1% of invoices on the same day, 16% within 1 to 10 days and 9% within 11 to 15 days, it should therefore be possible to satisfy discount payment terms (“2/10, net 30” and “2/15, net 30”) and obtain a discount if efforts are made in this regard. It should also be possible to satisfy all the other, less restrictive, payment terms.

In addition, these results lead us to question the effect of this rapid processing on other invoices, including those for which a discount may be obtained.

As part of our audit, we wanted to be sure that entering invoices with an “immediate” payment term was supported by a statement to this effect on the invoice. We also wanted to determine that the “immediate” payment term corresponded to what the supplier entered when registering in the supplier file. To do so, we selected 10 invoices entered with the “immediate” payment term.

The comparison between the payment term selected in SIMON when the invoice is entered and that appearing on the invoice itself revealed differences in 8 cases out of 10:

- Seven invoices out of the 10 (70%) did not indicate any payment term.
- One invoice out of the 10 (10%) indicated a “net 30 days” payment term.

Comparison between the payment terms entered in SIMON and those recorded in the supplier file by the suppliers themselves at the time of their registration also revealed differences in 9 cases out of 10. The payment terms appearing in the supplier file were “net 30 days” for all nine cases. In 1 case out of 10, the supplier file indicated the “immediate” payment term, which matched the information entered in SIMON.

According to the information obtained, when an invoice is entered in SIMON, the payment term indicated is that which appears in the supplier file. However, the payer may modify it without changing the supplier file. Consequently, despite the fact that most of the invoices examined did not indicate any payment term and that the supplier file indicated a payment term of “net 30 days” for the suppliers in question, payment officers entered the “immediate” payment term in SIMON.

We feel that while the ability to modify a payment term during invoice entry certainly helps speed up processing when discrepancies are found between the invoice and the supplier file, such a practice presents the risk of issuing payments earlier than required, without the city deriving any benefit. Actual payment times for the nine invoices with discrepancies were: five paid in less than 10 days, three paid in 11 to 15 days and one invoice was paid in 29 days, which is faster processing than required by the payment terms in the supplier file.

Moreover, such a practice presents the disadvantage of modifying payment terms during invoice entry without the supplier file being updated.

In conclusion, we feel the Service des finances should stipulate in its administrative frameworks that use of the “immediate” payment term should be limited when invoices are being entered. The supplier file should also contain up-to-date information, given

that it is the official reference for the city's registered suppliers. Since it is the suppliers' responsibility to enter and update their profile in the supplier file, we believe that the business unit in charge of invoice entry should ensure that the requesting unit ask the supplier to perform this update when required.

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

**We recommend that the Service des finances identify the suppliers who have received payments based on the “immediate” payment term and communicate this information to the business units responsible for the purchases so that negotiations can be undertaken to obtain discount payment terms.**

**We also recommend that the Service des finances stipulate the following in its administrative frameworks on processing invoices and issuing cheques:**

- **Use of the “immediate” payment term is limited to specific invoices to allow the city to derive benefits from them.**
- **Business units in charge of invoices must ensure that requesting units ask suppliers to update their payment terms when required to keep the supplier file up to date, as it is the official reference.**

### **3.2.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] “We will re-examine the payment term philosophy in supplier files with the Direction de l’approvisionnement and ensure that any “immediate” payment term stipulated by suppliers of goods and services also be approved by us. We will also perform a monthly follow-up of this file.” (Planned completion: October 2012)*

*[TRANSLATION] “We will re-examine the payment term philosophy in the supplier file with the Direction de l’approvisionnement. We prefer to no longer allow suppliers to choose the ‘immediate’ payment term without compensation. Any supplier who wants to be paid in less than 30 days will have to give us a discount, otherwise the ‘net 30 days’ or the standard term will be the only option. All city business units will be informed of this new philosophy.” (Planned completion: October 2012)*

### 3.3. OBJECTIVES AND MANAGEMENT REPORTS

#### 3.3.A. Background and Findings

Measurable objectives must be established to help guide payment term management (processing invoices and issuing cheques). Subsequently, regular permanent accountability mechanisms must be put in place to evaluate whether the objectives have been met. To do so, management reports must be produced periodically.

At the time of our audit, measurable objectives had not been established (e.g., reducing entry times by X days for discount payment terms). However, predefined management reports can be produced in SIMON. We found various types of reports that managers can use to identify discrepancies and standardize invoice payment times. For example, the following reports can be produced:

- [TRANSLATION] “List of invoices on hold”: This report is useful in monitoring invoices on hold in the SIMON supplier accounts module. Using this information, it is easy to identify invoices that require action on the part of a department, borough or the accounts payable team of the Service des finances.
- [TRANSLATION] “Invoices not verified”: This report provides a list of invoices entered in SIMON that have not been verified. Tracking invoices that have not been verified prevents delays in paying suppliers.
- [TRANSLATION] “Invoice entry analysis”: This control report, mainly intended for the Service des finances, can be used to analyze whether invoices have been entered more than once using the invoice number, invoice date or simply the amount of the invoice. Invoices are selected based on a given range of invoice creation dates.
- [TRANSLATION] “Payment times per supplier”: This statistical report is reserved for the Division de la vérification et du paiement des factures of the Service des finances. It provides the number of invoices recorded, the entry time and the payment time for each supplier over a given period.

While these monitoring reports are readily accessible, our audit revealed that few of them have been analyzed in a regular manner over the past year.

However, using data from SIMON, the manager of the Division de la vérification et du paiement des factures occasionally produces a statistical report on payment times by process. This report determines, for a given period, the entry and payment times for invoices processed by the Service des finances and the business units as well as internal invoices. It also allows for comparison between two periods to assess the variation in times.

According to the information obtained, formal accountability mechanisms for payment term management were not in place. Consequently, the reports mentioned above were used for internal management purposes within the Division de la vérification et du paiement des factures and were not communicated to department management. Yet, at the time of our audit, a copy of the statistical report on payment times by process indicated that the average payment time for the first 10 months of 2011 was 4.8 days longer than the same period the previous year (42.7 days compared to 37.9 days).

We feel that these reports are not sufficient in measuring payment times according to payment term categories (with discount, immediate payment or without discount). These reports are also not sufficient for business unit managers to evaluate their performance in invoice processing and guide payment term management toward realizing savings through discount payment terms. Since these reports are not linked to any measurable objectives, they cannot demonstrate whether the objectives have been met.

### **3.3.B. Recommendations**

**We recommend that the Service des finances establish measurable objectives aimed at improving invoice payment terms, particularly those with discounts, to enable the city to achieve savings through discounts and improve its image as a “payer.”**

**We also recommend that the Service des finances produce management reports containing useful and sufficient information in order to measure the achievement of the established objectives and enable informed decision making.**

### 3.3.C. Action Plan of the Relevant Business Unit

[TRANSLATION] “Prepare new management reports to:

- monitor processing of invoices from suppliers offering a discount
- compile a list of suppliers with payment times of over 45 days and meet with them as well as the business units involved.” **(Planned completion: November 2012)**

[TRANSLATION] “Prepare new management reports demonstrating the changes in payment times when improvements to the invoice handling process have been made.” **(Planned completion: November 2012)**

## 3.4. DISTRIBUTION OF CHEQUES AFTER ISSUING

### 3.4.A. Background and Findings

The draft directive on processing invoices and issuing cheques dating back to 2006 stipulates that all cheques are issued by the Service des finances. It also states that, based on the payment group determined when the invoice is entered in the “Payment request – SIMON” module, the cheque is sent to:

- department and borough requesting business units by internal mail
  - to have support documents attached before mailing to payee
  - to be submitted, exceptionally, directly to the payee
- or to the supplier by mail

As part of our audit, we wanted to assess how often cheques were sent directly to the requesting units. For the first 11 months of 2011, we found that close to 80% of invoices were paid to external suppliers via cheques mailed by the Service des finances. Moreover, 13% of invoices were paid to internal payment groups (e.g., the CSEM, the SPVM, the Division de la sécurité [of the Direction des immeubles]) or involved payments added to salaries. We found that for 7% of invoices paid, the cheques had been sent directly to the requesting unit. We counted 42 different requesting units in both the central departments and boroughs.

We then examined the nature of the cheques sent directly to 12 boroughs and two central department business units. The largest payments consisted mainly of subsidies

to non-profit organizations and sponsorship funds for social, sporting or cultural events. Our examination also revealed that some cheques addressed to suppliers are sent to the boroughs.

We feel that the practice of submitting cheques addressed to suppliers directly to the requesting units is likely to extend the time it takes for suppliers to receive their payments. Furthermore, we believe that such a practice goes against the rules of task separation in the procuring, receiving and paying process for goods and services. A cheque should not be submitted to any person who has participated in the spending authorization process or any step of the payment request process. We feel that all cheques issued by the Service des finances should be sent directly to the payees by mail. The Service des finances should therefore modify its directive on processing invoices and issuing cheques accordingly.

#### **3.4.B. Recommendations**

**We recommend that the Service des finances:**

- **Ensure that all cheques issued as current payment are sent by mail directly to the payees in order to clearly demonstrate compliance with task separation rules.**
- **Modify its directive on processing invoices and issuing cheques accordingly.**

#### **3.4.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] “We will remind business units of this situation. We will also remind administrative units of the importance of task separation and we will apply the recommendation on mailing of cheques, assessing the situation based on the needs of the units. (Planned completion: memo and meeting before July 2012)”*

*However, in rare cases, we believe that this may be justified, although it is exceptional. We will modify the directive to indicate that cheques must be sent directly to the payees by mail and we will specify the exceptions that will have to be approved by the unit manager and the Division de la vérification et du paiement des factures manager.” (Planned completion: November 2012)*

### 3.5. IMPROVING OUTLOOK OF PAYMENT TIME

#### 3.5.A. Background and Findings

We mentioned in previous sections that efforts should be made to reduce the various delays involved in the payment process to be able to benefit from discounts offered by suppliers. We also mentioned that purchases of goods and services paid under an “immediate” payment term should be negotiated wherever possible with the suppliers in question so that the city may benefit from discounts.

We calculated the average payment times for the 12 payment terms established for invoices that do not include any discount payment terms in the supplier file (apart from those with the “immediate” payment term). These represent more than 60% of invoices paid. Table 6 shows that the average payment time for this group of payment terms is 46 days. For each of the payment terms, the actual average payment time exceeds the limit set by suppliers.

**Table 6—Average Payment Times for  
Un-Discounted Payment Terms  
(First 11 Months of 2011)**

Index	Payment term	Average payment time (days)
T29	Net 10 days	40.7
T30	Net 15 days	44.5
T31	Net 20 days	44.6
T32	Net 21 days	32.4
T33	Net 25 days	47.4
T34	Net 30 days	45.9
T35	Net 45 days	51.5
T36	Net 60 days	65.0
T37	Net 75 days	79.9
T38	Net 90 days	116.2
T39	Net the 15th of the following month	48.4
T40	Net the 25th of the following month	62.0
<b>Average payment time for un-discounted payment terms</b>		<b>46.0</b>

While it is true that the city does not lose any discounts for these invoices, as such payment terms have not been arranged with the suppliers in question, the city is nonetheless exposing itself to late fees. Moreover, such a situation damages the city's image as a "payee."

We also wondered about the possibility of obtaining payment discounts in cases where goods and services are acquired through public calls or invitations for tenders. We therefore examined standard call for tender documents to determine whether provisions were already present to inform bidders of the possibility of offering purchase discounts. In the general provisions document, for goods and services other than professional services, we found the following clauses on payment terms:

**Paragraph 6.1**

*[TRANSLATION] "Payment terms are 'net thirty (30) days' from the date of reception of the invoice or the provision of services or the delivery of goods to the destination point determined by the city, based on the later of the two dates. As a result, no other payment term will be enforceable on the city."*

**Paragraph 6.2**

*"Despite paragraph 6.1, bidders may offer payment discounts according to very precise payment terms indicated in section A of additional information, point 1. These discounts are not taken into account in the bid evaluation, but will bind the successful bidder where applicable."*

Bidders can then offer purchase discounts. However, according to the information obtained, few suppliers have taken advantage of this possibility up to now.

Nevertheless, upon reading these general provisions on payment terms, we noted that they make reference to a calculation method starting with the invoice reception date. This is a significant difference from the payment time calculation method generally used by SIMON (invoice date). It is undeniable that choosing this method would affect the payment period and could, in theory, increase discounts granted by suppliers by offering the city more flexibility in paying expenses.

We also found that clauses related to payment terms did not exist in the call for tender documents for professional services or construction work. This situation does not encourage suppliers to offer payment discounts. It should be mentioned that these two

types of calls for tenders (professional services and construction work) do not come under the Direction de l'approvisionnement, but rather the relevant business units in charge (e.g., the Direction des travaux publics, the Service de l'eau, the boroughs). Given that these call for tender documents are currently being standardized, we feel that clauses pertaining to payment terms should be considered. Such clauses would be beneficial to the city, provided that efforts are made to reduce payment times.

At the time of our audit, we noted that some preliminary actions had been taken. According to the information obtained, the Service des finances and the Direction de l'approvisionnement held a meeting in February to discuss, among other things, the fine-tuning of payment terms as well as the possibility of replacing the "immediate" payment term with another payment term that would generate savings.

We also found that in February 2012 the Direction de l'approvisionnement and the Service des finances have together put in place a new process for purchasing de-icing salt. The business units must order by phone and keep the delivery slip when the salt is received. The supplier sends a weekly statement to the Service des finances for payment within 10 days of its reception. According to the information obtained, this new procedure should make it possible to obtain a payment discount.

Because this is a new way of proceeding, we feel that the stakeholders involved should assess the extent to which payment terms were respected and expected discounts realized. If the results are conclusive and the control environment is also reliable, the Direction de l'approvisionnement could then consider extending this practice to other collective purchasing agreements.

In conclusion, given the actual payment times and the consequences they can have on the city's image, we believe that serious thought needs to be put into finding solutions to reduce these delays. Specifically, the city could explore other modes of operation that could put it in a better position to negotiate payment terms with its current or future suppliers so that it could benefit from payment discounts. For example, it could consider receiving or paying invoices online.

### 3.5.B. Recommendations

We recommend that the Direction de l'approvisionnement and the Service des finances:

- Continue their discussions on payment terms in order to improve payment term management and allow the city to benefit from discounts offered by suppliers.
- Assess the results of the new de-icing salt purchasing process to determine whether it was possible to adhere to the payment terms to receive the expected discounts and, if appropriate, consider extending this practice to other collective purchasing agreements.
- Explore other modes of operation for receiving, processing and paying invoices and, if appropriate, modify the current procedures to reduce payment terms.

We recommend that the Direction générale decide on the calculation method used to establish payment times in a consistent manner and provide the city with greater flexibility to pay its expenses.

In addition, we recommend that the Direction générale assess the relevance of including general clauses in the standard call for tender documents (professional services and construction work) for payment terms to allow suppliers to offer discounts based on payment times.

### 3.5.C. Action Plan of the Relevant Business Unit

- **DIRECTION DE L'APPROVISIONNEMENT**  
[TRANSLATION] "Designate the Service des finances and the Direction de l'approvisionnement to propose a procedure for improving payment times to the Direction générale. (**Planned completion: June 2012**)

*For the benefit of these two bodies, have the recommendation clarified to ensure that it is properly understood. (**Planned completion: June 2012**)*

Assess target payment times with representatives of the various business sections for the following:

- goods and services
- professional services
- construction work (**Planned completion: September 2012**)

Draft a directive to be approved by the Direction générale on the responsibilities of all those involved in payment document processing and the targets to meet. (**Planned completion: November 2012**)

Approval and implementation of the directive.” (**Planned completion: December 2012**)

- **SERVICE DES FINANCES**

[TRANSLATION] “Close cooperation between the Direction de l’approvisionnement and the Service des finances is clearly essential. However, these two partners cannot improve certain purchasing and invoice payment processes without the support of the team in charge of the ORACLE/SIMON computer systems and the willingness of suppliers to comply with our procedures. A progress meeting will be organized to establish the shared objectives (Direction de l’approvisionnement and Service des finances) for future purchasing agreements.” (**Planned completion: June 2012**)

- **DIRECTION GÉNÉRALE**

1) [TRANSLATION] “The Direction de l’approvisionnement has been mandated to assess the current calculation method and submit possible solutions to the city manager.” (**Planned completion: December 2012**)

2) [TRANSLATION] “The Direction de l’approvisionnement will assess the relevance and methods of including general clauses on payment terms in the standard call for tender documents (professional services and construction work) to allow suppliers to offer discounts based on payment times.

*The following steps will be used to amend existing clauses so that they are considered in evaluating the financial component of submissions:*

- Analyze existing clauses.*
- Establish a weighting for proposed discounts.*
- Assess the feasibility of rapid payment for 90% of invoices.*
- Test with suppliers.*
- Amend existing clauses and include them in templates.” (Planned completion: December 2012)*

## 4. APPENDICES

### 4.1. PAYMENT TERM SUMMARY (PERIOD FROM JANUARY 1 TO NOVEMBER 23, 2011)

Table A—Payment Term Summary

Index	Payment term	Number of invoices	Amount eligible for discount	Amount not eligible for discount	Maximum discount granted	Discount received
T1	0.5% 10 days, net 30 days	3	\$2,682		\$13	\$0
T2	1% 10 days, net 30 days	790	\$865,388		\$8,654	\$643
T3	1% the 10th of the following month, net the 20th of the following month	35	\$27,965		\$280	\$16
T4	1% 15 days, net 30 days	284	\$149,679		\$1,497	\$296
T5	1% the 15th of the following month, net 30 days	75	\$24,497		\$245	\$168
T6	1% 20 days, net 30 days	486	\$604,876		\$6,049	\$770
T7	1% 30 days, net 30 days	41	\$483,960		\$4,840	\$2,259
T8	1% the 15th of the following month	259	\$73,317		\$733	\$448
T9	1.25% 10 days, net 30 days	181	\$25,277		\$316	\$0
T10	1.5% 10 days, net 30 days	5	\$7,313		\$110	\$0
T11	10% 30 days, net 30 days	10	\$13,166		\$1,317	\$356
T12	2% 10 days, 1% 15 days, net 30 days	1,973	\$218,311		\$4,366	\$892
T13	2% 10 days, net 30 days	1,412	\$1,177,374		\$23,547	\$2,668
T14	2% 10 days, net 90 days	1	\$16		\$0	\$0
T15	2% 15 days, net 30 days	2 221	\$853,227		\$17,065	\$2,823
T16	2% 30 days, net 31 days	63	\$16,451		\$329	\$183
T17	2% 30 days, net 45 days	1,914	\$1,023,589		\$20,472	\$10,699
T18	2% 30 days, net 60 days	31	\$22,597		\$452	\$360
T19	2% 5 days, net 30 days	1	\$3,160		\$63	\$0
T20	2% the 10th of the following month, net 30 days	1,801	\$813,676		\$16,274	\$6,810
T21	2% the 15th of the following month	3,575	\$898,751		\$17,975	\$9,277
T22	2% the 15th of the following month, net 30 days	686	\$510,675		\$10,214	\$6,715
T23	2% the 20th of the following month	896	\$299,280		\$5,986	\$3,591
T24	2,2% 30 days, net 30 days	2	\$25,290		\$556	\$0
T25	3% 15 days, net 30 days	12	\$185,228		\$5,557	\$2,086
T26	3% on reception, 2% 10 days, 1% 15 days, net 30 days	104	\$103,247		\$2,065	\$1,746
T27	5% 10 days, net 30 days	5	\$49,279		\$2,464	\$0
T28	7% the 20th of the following month	1	\$7,257		\$508	\$0
<b>Total for invoices with discounts</b>		<b>16,867</b>	<b>\$8,485,528</b>		<b>\$151,947</b>	<b>\$52,806</b>
T29	Net 10 days	2,685		\$13,183,110		\$0
T30	Net 15 days	3,000		\$7,355,466		\$0
T31	Net 20 days	224		\$231,676		\$0
T32	Net 21 days	347		\$276,343		\$0
T33	Net 25 days	79		\$144,122		\$0
T34	Net 30 days	212,285		\$319,146,275		\$0
T35	Net 45 days	1,427		\$10,034,503		\$0
T36	Net 60 days	712		\$1,584,172		\$0
T37	Net 75 days	222		\$553,982		\$0
T38	Net 90 days	6		\$16,981		\$0
T39	Net the 15th of the following month	1,573		\$3,490,359		\$0
T40	Net the 25th of the following month	2		\$23,068		\$0
<b>Total for un-discounted invoices except for the "immediate" payment term</b>		<b>222,562</b>		<b>\$356,040,057</b>		<b>\$0</b>
T40	<b>Immediate</b>	<b>127,714</b>		<b>\$2,324,155,824</b>		<b>\$0</b>
<b>Overall total</b>		<b>367,143</b>	<b>\$2,688,681,409</b>		<b>\$151,947</b>	<b>\$52,806</b>

#### STATISTICS

- Number of invoices whose payment terms allowed for a discount: 16,867.
- Proportion of invoices with discount payment terms: 4.6%.
- Number of invoices with an "immediate" payment term: 127,714.
- Proportion of invoices with an "immediate" payment term: 34.8%.

## 4.2. PAYMENT TIME ANALYSIS – SELECTED INVOICES

**Table B—Payment Time Analysis  
(Number of days)**

Test	Payment term	Invoice amount	Reception time <sup>1</sup>	Entry time <sup>2</sup>	Hold and release time <sup>3</sup>	Cheque issuing time <sup>4</sup>	Actual time	Time allowed <sup>5</sup>
<b>Invoices for which a discount was obtained</b>								
<b>Invoice without a purchase order</b>								
1	2% the 20th of the following month	\$447.02	7	4	n/a	19	30	45
<b>Invoices with a purchase order</b>								
2	2% the 10th of the following month, net 30 d	\$1,656.57	6	7	n/a	20	33	40
3	2% the 15th of the following month	\$6,890.18	n.d.	43	n/a	1	44	45
4	2% 15 d, net 30 d	\$223.29	n.d.	7	n/a	5	12	30
5	2% the 15th of the following month	\$1,281.98	n.d.	23	n/a	1	24	45
6	2% 10 d, net 30 d	\$1,777.23	1	7	n/a	1	8	30
7	2% the 15th of the following month	\$2,237.62	6	11	n/a	14	31	45
<b>Invoices for which a discount was not obtained</b>								
<b>Invoices without a purchase order</b>								
8	2% 15 d, net 30 d	\$278.12	19	13	n/a	1	33	15/30
9	2% 10 d, net 30 d	\$157.80	38	1	n/a	3	42	10/30
10	2% 15 d, net 30 d	\$906.53	7	8	0	11	26	15/30
<b>Invoices with a purchase order</b>								
11	2% 15 d, net 30 d	\$1,084.57	5	29	n/a	0	34	30
12	2% 10 d, net 30 d	\$243.34	n.d.	92	n/a	3	95	30
13	2% the 20th of the following month	\$549.81	12	65	1	0	78	45
14	2% 10 d, net 30 d	\$384.78	n.d.	40	n/a	1	41	30
15	2% the 10th of the following month, net 30 d	\$227.43	n.d.	58	n/a	2	60	40
16	2% the 15th of the following month	\$1,403.56	n.d.	17	n/a	25	42	45
17	2% 10 d, net 30 d	\$245.66	n.d.	7	n/a	19	26	30
18	2% the 20th of the following month	\$393.87	n.d.	27	n/a	15	42	45
19	2% 10 d, net 30 d	\$1,143.72	n.d.	14	n/a	14	28	30
20	2% the 10th of the following month, net 30 d	\$1,737.36	n.d.	57	13	1	71	40
21	1% 15 d, net 30 d	\$1,379.58	n.d.	63	n/a	0	63	30
22	1% 20 j, net 30 d	\$118.66	n.d.	24	n/a	2	26	30
23	2% the 15th of the following month	\$211.65	n.d.	35	n/a	6	41	45
24	1% 20 j, net 30 d	\$338.55	n.d.	78	n/a	2	80	30
25	2% 15 d, net 30 d	\$338.55	n.d.	13	0	14	27	30
26	2% 10 d, net 30 d	\$1,379.46	n.d.	20	n/a	7	27	30
27	1% 10 d, net 30 d	\$882.68	n.d.	31	n/a	1	32	30
28	2% the 10th of the following month, net 30 d	\$5,353.34	n.d.	12	1	13	26	40

<sup>1</sup> Reception term: number of days between the invoice date and the date the invoice is received.

<sup>2</sup> Entry term: number of days between the invoice reception date and the date it is entered in SIMON. When the reception date is not determined, entry term corresponds to the difference between the invoice date and the entry date.

<sup>3</sup> Hold and release term: number of days between the hold date and the release date.

<sup>4</sup> Cheque issuing term: number of days between the invoice entry date or the release date and the payment date.

<sup>5</sup> Time allowed: Maximum number of days granted by the supplier according to payment terms.

n.d.: not determined.

n/a: not applicable.



# V.5. Hazardous Material Management



**Vérificateur général**  
de la Ville de Montréal



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## LIST OF ACRONYMS

CAD	computer-assisted dispatch system	MAMROT	ministère des Affaires municipales, des Régions et de l'Occupation du territoire
CBFVM	consolidated by-laws of the former Ville de Montréal	MDDEP	ministère du Développement durable, de l'Environnement et des Parcs du Québec
CSP	chlorine safety plan	MIARC	Major Industrial Accidents Reduction Council
CSST	Commission de la santé et de la sécurité du travail	MSP	ministère de la Sécurité publique
DEDD	Direction de l'environnement et du développement durable	PGMUEM	Programme de gestion des mesures d'urgence dans les édifices municipaux
E2 Regulations	Environmental Emergency Regulations	PRIM	Plan pour installations à risques industriels majeurs
FSP	fire safety plan	SDO	Service du développement et des opérations
HAZMAT	hazardous materials	SSIM	Service de sécurité incendie de Montréal
HHW	household hazardous waste		
JMIC	joint municipality/industry committee		

## V.5. HAZARDOUS MATERIAL MANAGEMENT

### 1. INTRODUCTION

Businesses, government institutions, municipalities and citizens make use of hazardous materials (HAZMAT) on a daily basis. These HAZMAT, which are used, stored, transported and disposed of, are an integral part of community life. All this activity includes its share of risks. Accidents can occur, and can constitute a danger for the health and safety of employees and the general population alike, not to mention the possible consequences for water, air and soil contamination.

#### **FACTS FOR THE TERRITORY OF MONTRÉAL**<sup>1,2</sup>

In 2009 and 2010, 25 accidents involving HAZMAT occurred on the territory of Montréal, including 24 at fixed sites and one connected to the transportation of HAZMAT.

Some examples of accidents that made headlines over the past few years:

- 2010: Leak of petroleum products from a refinery tank
  - Leak of 152,000 litres of petroleum hydrocarbons into the St. Lawrence River
  - Water, air and soil contamination
  - Citizens bothered by a strong odour of petroleum
- In 2007: Leak of acetic acid from a pipe in a petrochemical plant
  - Leak from a tank containing 180,000 litres of acetic acid in an 80% concentration
  - Air contamination, formation of a toxic cloud
  - Surrounding population told to stay indoors

Our illustrations of risks related to HAZMAT management take into account the limits imposed by current laws. These exposure limits require that risk generators disclose risks and accidents to certain government authorities only, and not to the general population.

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<sup>1</sup> Registre des réponses d'Urgence-Environnement, MDDEP, March 30, 2011.

<sup>2</sup> Centre de sécurité civile, Ville de Montréal, 2011.

For further information about major accident risks, their effects and their consequences, see Appendix 4.1.

### **PRESENCE OF HAZARDOUS MATERIALS ON THE TERRITORY OF MONTRÉAL**

According to data from the Ministère du Développement durable, de l'Environnement et des Parcs du Québec (MDDEP),<sup>3</sup> the Montréal administrative region produces 64.3 million kilograms of hazardous waste, ranking second in this category in Québec.

As of February 2, 2010, 55 facilities in the Montréal agglomeration are subject to federal Environmental Emergency (E2) Regulations. These facilities treat, store or transform HAZMAT in such quantity that the consequences, in the event of an accident, could extend beyond the boundaries of the facilities and reach the surrounding population.

The facilities subject to E2 Regulations are heavily concentrated in the petrochemical plant sector in the east of Montréal.

### **STATUTES AND REGULATIONS**

The federal and provincial governments have enacted several statutes and regulations to control how risk generators use, store and dispose of hazardous materials in order to protect workers, the population and the environment (see Appendix 4.2).

### **ROLE AND RESPONSIBILITIES OF THE CITY WITH REGARD TO HAZARDOUS MATERIALS**

The Ville de Montréal (the city) has a dual role in the management of hazardous waste. In terms of public safety, it must protect the population and the environment. Moreover, as its own facilities generate risks, it must also protect the health and physical integrity of its employees.

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<sup>3</sup> *Gestion des matières dangereuses résiduelles au Québec*, MDDEP, Gouvernement du Québec, 2005, p. 8.

The city's major responsibilities in managing major industrial accident risks for public safety are:<sup>4</sup>

- set up and coordinate risk management committee(s)
- ensure that committee goals are met
- make sure that risk generators fulfill their obligations
- prepare and maintain a municipal emergency plan
- protect the population if a disaster should occur
- alert the population if a disaster should occur
- notify the ministries involved if a disaster should occur
- have an adequately trained emergency response team
- define buffer zones between risk generation sites and the population
- consider the risks of new industrial projects to the population's health and safety

In order to assume these responsibilities, the Service de sécurité incendie de Montréal (SSIM), through the intermediary of the Centre de sécurité civile and the Direction des opérations et de la prévention, works closely with the industrial sector to target and reduce the risks of major industrial accidents<sup>5</sup> and ensure better emergency response coordination.

The SSIM, as first responder, has an important role to play in the event of a major industrial accident in the Montréal agglomeration. In addition to its fire-fighting role, its primary responsibility is to have its HAZMAT response team detect and determine the product involved and carry out various response techniques.

At the scene of the accident, the SSIM may need to manage the disaster zone to some degree, depending on the scope of the event and the responsibilities of the various government stakeholders.

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<sup>4</sup> List based on these documents: *Risk Management Guide for Major Industrial Accidents*, MIARC, 2007 edition, and *Matières dangereuses : Savoir quoi faire*, Directeur de santé publique, Gouvernement du Québec, 2008, p. 16.

<sup>5</sup> Major industrial accident: an unexpected and sudden event involving hazardous materials (release of toxic materials, explosion, thermal radiation) and having consequences for the population, environment or property outside the establishment.

The Direction de l'environnement et du développement durable (DEDD) of the Service du développement et des opérations (SDO) also works with the industrial sector to improve and protect the quality of Montrealers' environment.

The city itself is a risk generator in carrying out its activities. It stores, handles, transports and disposes of a significant number of diverse HAZMAT. Of course, some facilities have a greater risk of accidents because of the nature and quantities of the HAZMAT they use or store, for example: Service de l'eau drinking water treatment plants (they use chlorine), ecocentres (sites for reusing and recycling waste matter including household hazardous waste or [HHW]) and arenas (some refrigeration systems use ammonia). To protect the health and physical integrity of their employees, the different business units are responsible for establishing and maintaining an occupational health and safety management system. The Service du capital humain coordinates the formation and supervision of the city's occupational health and safety management system.

## 2. AUDIT SCOPE

The purpose of this audit was to ensure that HAZMAT are managed safely and comply with regulations so that the health and safety of employees, citizens, property and the environment are protected, and to evaluate the state of the city's preparedness to cope with a HAZMAT disaster.

Our audit dealt more specifically with the following elements:

- analysis and evaluation of risks attributable to HAZMAT
- control mechanisms for preventing accidents involving HAZMAT and intervening adequately in emergency situations
- compliance with laws and regulations
- reports, mechanisms of communication and of coordination among the various responders

The scope of our work included risk management of major industrial accidents on the agglomeration of Montréal territory as well as HAZMAT management by some city

facilities where they are used or stored (drinking water treatment plants and ecocentres).

We would like to clarify that this audit did not deal with managing domestic use of HAZMAT by citizens, the risk of a terrorist attack involving HAZMAT or managing HAZMAT transportation.

Our audit was concerned mainly with the Centre de sécurité civile and the Direction des opérations et de la prévention, which are under the authority of the SSIM. It was also conducted with the DEDD and the Direction du développement économique et urbain of the SDO, the Service de l'eau's Direction de l'eau potable as well as the Direction des immeubles of the Service de la concertation des arrondissements et des ressources matérielles. The audit covered 2010 and the first five months of 2011, and carried out predominantly from March to May 2011.

### **3. FINDINGS, RECOMMENDATIONS AND ACTION PLANS**

#### **3.1. MAJOR INDUSTRIAL ACCIDENT RISK MANAGEMENT**

##### **3.1.1. DETECTING AND EVALUATING MAJOR INDUSTRIAL ACCIDENTS RISKS**

###### **3.1.1.A. Background and Findings**

Under various statutes and regulations, municipalities and risk generators are responsible for detecting and evaluating the dangers from activities involving HAZMAT.

The primary responsibility for detecting and evaluating risks falls to the risk generators. They must establish and maintain a risk management system to prevent HAZMAT accidents. However, despite prevention efforts, an accident is always possible. For this reason, risk generators and municipalities must be prepared to respond in an effective manner and coordinate their efforts to mitigate the consequences. Such preparation is only possible when the municipality is aware of the vulnerabilities in its jurisdiction and shares information with the risk generators.

To fulfil its responsibilities, the city must have adequate information about risk generators. The SSIM indicated in the 2008 fire safety cover plan that 42 facilities subject to E2 Regulations handled, stored or processed HAZMAT in such quantities that, in the event of an accident, the consequences could extend beyond the boundaries of the facilities and affect the surrounding population. As of February 2, 2010, there were 55 of these facilities.

During our audit, we wanted to make sure that the SSIM had access to adequate information for accurately evaluating industrial risks in the agglomeration of Montréal. In order to do so, we examined SSIM information regarding facilities subject to E2 Regulations.

Our audit identified following weaknesses:

- The city lacks key information for properly evaluating risks and preparing adequately for a major accident:
  - For the 55 facilities reporting under E2 Regulations:
    - 20% (11/55) have disclosed their risks to the city, i.e., their analyses of the consequences (standardized scenarios<sup>6</sup> and alternatives<sup>7</sup>) for the HAZMAT they use or store.
    - Risk reports are not updated regularly and are more than five years old in 91% (10/11) of the cases.

This situation is explained in part by the fact that current statutes and regulations do not oblige the risk generators to declare risks to the municipality. In fact:

- Environment Canada E2 Regulations require that risk generators reveal their risks and consequences to the population. This regulation does not specify disclosure to the municipality.
- Under section 8 of the *Civil Protection Act*, risk generators are required to report their risks to the municipality. However, to date, the Ministère de la Sécurité publique du Québec (MSP) has not produced any regulations defining which risk

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<sup>6</sup> Standardized scenario: release of the largest quantity of a hazardous substance held in the largest container for which the impact distance is the greatest.

<sup>7</sup> Alternative scenario: the largest accident that could be produced by a hazardous material held in fixed critical quantity. Its occurrence is more than likely compared to the standardized scenario. It takes into consideration passive mitigation measures (e.g., a bund) and active mitigation measures (e.g., automatic sprinklers).

generators must report, when they must report, and the conditions under which the required information must be supplied. Municipalities have been waiting for this regulation since 2001. Under section 133, the municipality could initiate criminal prosecution for violation of section 8.

Consequently, if the city is not able to receive information on risks and their consequences from the risk generators, it might not be able to properly prepare and respond in the event of a major accident. In our opinion, it is essential that risk generators be obliged to communicate their risks to the municipality to protect the population and the environment. For this to happen, the city might consider these options, among others:

- work with Environment Canada so that risk generators comply with E2 Regulations and reveal possible risks and consequences to the population as required by the regulation
- apply sections 8 and 133 of the *Civil Protection Act*
- regulate risk disclosure by the risk generators

#### **3.1.1.B. Recommendations**

**We recommend that the Service de sécurité incendie de Montréal, with the Service des affaires juridiques et de l'évaluation foncière, take the necessary measures to require risk generators to disclose their risks to the city so that it can identify and evaluate the risks in the agglomeration.**

#### **3.1.1.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] "In department regulations: Incorporation of the authority to ask industries for 'any information' falling within their field of expertise and 'an expert's technical report to help assess the risk . . . level . . . of a process'. Applicable to all existing buildings in the Montréal agglomeration. (Planned completion: December 2011)*

*Fire safety cover plan – Major industrial accident risk management (E2 program): Determine the facilities subject to E2 Regulations and verification of the lists of HAZMAT subject to E2 Regulations. (Planned completion: January 2012)*

*Send a letter to Environment Canada explaining the SSIM's risk management model and requesting Environment Canada's support in updating the information submitted by the companies under E2 Regulations.” (Planned completion: September 2011)*

### 3.1.2. JOINT MUNICIPALITY/INDUSTRY COMMITTEES

#### 3.1.2.A. Background and Findings

Every municipality is responsible for promoting municipal and industrial coordination of emergency measures. The establishment of a joint municipality/industry committee (JMIC) is recognized as being a good way to ensure this coordination.

A JMIC is a purely voluntary group representing municipal administrations, citizens, manufacturing concerns and government organizations working in the fields of health, emergency preparedness and the environment. They have a common desire to establish an integrated procedure for major industrial accident risk management. Their goal is to pool their resources, professional expertise, equipment, knowledge and experience.

The goals pursued by a JMIC are primarily to:

- determine the risks related to HAZMAT activities on its territory
- help risk generators evaluate the consequences of major industrial accidents
- encourage these risk generators to implement necessary preventative activities
- integrate municipal and industrial emergency plans
- inform the community and establish an effective communication network

The city encourages the establishment of JMICs. The first JMIC in Montréal, Entraide mutuelle de l'est de Montréal, actually came into being in 1950. Currently, there are four JMICs in the agglomeration of Montréal:

- Comité mixte municipalités-industries-citoyens de l'est de Montréal (CMMIC-EM)
- Comité industriel en sécurité de LaSalle (CISL)
- Comité mixte arrondissement et industries (CMAI) de Saint-Laurent
- Comité industries-municipalité d'Anjou (CIMA)

During our audit, we wanted to make sure that the JMICs allowed the city to effectively manage major industrial risks in the agglomeration of Montréal. We primarily examined the minutes of these committees.

This audit revealed the following deficiencies:

- The long-term survival of some JMICs is at risk. For example, one JMIC has been inactive for more than a year while the way others are functioning has been questioned.
- The roles and responsibilities of members are not clearly defined, especially for municipal representatives. We observed that the city did not play a leadership role with the JMICs.
- Turnover is significant in relation to the three member categories (businesses, municipalities, citizens).
- Little interaction exists among human, financial and material resources because of the number of JMICs in Montréal and the limited resources and specialized expertise available.
- City business objectives have not been established and conveyed to JMICs including:
  - communication of the risks to citizens (e.g., the percentage of facilities subject to E2 Regulations that have duly communicated risks to citizens)
  - design of municipality/industry response plans (e.g., the percentage of facilities subject to E2 Regulations having a duly coordinated municipality/industry response plan)
- No accountability for the city reaching its goals exists.
- Fair apportionment of the costs between the city and risk generators has not been established.
- The majority of facilities subject to E2 Regulations (69% or 38/55) are not JMIC members.

We note that a MIARC study<sup>8,9</sup> of best practices and challenges observed in Québec JMICs reports similar findings to those presented above.

Consequently, these deficiencies on the operation of JMICs do not promote integrated risk management, which includes coordination among stakeholders to ensure effective preparation and emergency response as well as adequate disclosure of the risks to the population.

### **3.1.2.B. Recommendations**

**To ensure that joint municipality/industry committees allow the city to effectively manage industrial risks, we recommend that the Direction générale, in collaboration with the Service de sécurité incendie de Montréal, clarify:**

- **the city’s business objectives for the joint municipality/industry committees;**
- **the roles and responsibilities of the city’s business units and their representatives;**
- **the human and financial resources needed for supporting the joint municipality/industry committees;**
- **financing sources, so that there is a fair apportionment of costs between the city and risk generators;**
- **accountability mechanisms;**

**as well as to review the appropriate number of joint municipality/industry committees that must be present in the agglomeration of Montréal and their methods of operation.**

### **3.1.2.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] “The SSIM is mandated by the Direction générale to suggest directions to the municipal administration for current JMICs or any other coordination mechanisms it judges appropriate.*

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<sup>8</sup> *Bilan de l’étude du CRAIM [MIARC] sur les meilleures pratiques observées pour la concertation locale en gestion des risques industriels majeurs*, MIARC, November 2010, 21 p.

<sup>9</sup> Major Industrial Accidents Reduction Council: a group of experts (municipal, industrial and government) in the industrial risk field whose goal is to establish standards and management tools for the various stakeholders.

*Major industrial accident risk accountability will be integrated into the Bilan de l'état de préparation de l'agglomération de Montréal pour faire face à un éventuel sinistre presented annually by the Centre de sécurité civile.” (Planned completion: January 2012)*

### 3.1.3. MUNICIPALITY/INDUSTRY RESPONSE PLANS

#### 3.1.3.A. Background and Findings

E2 Regulations require that risk generators prepare emergency plans that include the following information:

- types of emergencies likely to occur and have an impact on the environment, health or safety
- details of prevention, preparation, response and recovery measures
- register of individuals expected to execute the plan and their roles
- indication of the training these individuals have received
- inventory of response equipment and its location
- measures for notifying affected members of the public

By virtue of federal regulations, this emergency plan must be tested annually and the drills must be documented.

The risk generator must work in concert with the municipalities and other organizations involved to ensure improved response in an emergency situation.

During this audit, we wanted to make sure that, in the event of a major industrial accident, the SSIM—the first responder—had updated HAZMAT information and response plans for facilities subject to E2 Regulations. To do so, we examined the quality of the information contained in the E2 Regulations system<sup>10</sup> (a computerized system used by firefighters when they are called to respond to a fire) as well as SSIM response plans for the 55 facilities subject to E2 Regulations.

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<sup>10</sup> Computer-assisted dispatch (CAD) system.

The SSIM, the first responder in event of an accident, does not have all of the information necessary to effectively respond with facilities subject to E2 Regulations.

This audit enabled us to observe the following deficiencies:

- For some facilities (13% or 7/55), the E2 Regulations system contains no information on either HAZMAT or the fire response plan.
- In 64% (35/55) of the cases, the information in the E2 Regulations system is neither complete nor up to date regarding HAZMAT used or stored by the facilities and response plans.
- The SSIM is not informed of and does not have copies of emergency plans produced by risk generators.
- Although response plans have been written up, only one uses the standardized or alternative accident scenarios prepared by the risk generators. This leads us to question the adequacy of:
  - response and recovery measures anticipated in event of an accident
  - municipality and industry response capability
- Few agreements have been concluded to apportion funding responsibilities between city and industry teams for preparing response plans and optimizing response organization in the event of an accident.

We note, however, that the SSIM has a program mentioned in the 2008 fire safety cover plan that foresees the design and implementation of a fire safety management model for industries subject to E2 Regulations during the 2010 to 2013 fiscal years, using the structure of existing JMICs or their equivalents where appropriate.

#### **3.1.3.B. Recommendations**

**In order to ensure the effectiveness of municipality/industry response plans, we recommend that the Service de sécurité incendie de Montréal:**

- **Develop response plans as quickly as possible for all at-risk facilities and update them constantly.**

- Continue with its efforts over the next few years to develop and implement a fire safety management model for industries subject to the Environmental Emergency (E2) Regulations that will:
  - make facility emergency plans known so that joint municipality/industry response plans can be prepared
  - use the standardized and alternative accident scenarios to prepare municipality/industry response plans and formally assess the adequacy of municipal and industry response capabilities
  - specify the human and financial resources necessary to prepare response plans and support response activities as well as funding sources for a fair apportionment of costs between the municipality and the industries.

#### 3.1.3.C. Action Plan of the Relevant Business Unit

[TRANSLATION] “Fire Safety Cover Plan – Major industrial accident risk management (E2 program):

- Preparation of a specific SSIM response plan template for E2 facilities (PRIM: Plan pour installations à risques industriels majeurs):
  - CAD: the format of the specific response plans for high-risk industries must be compatible with vehicular computers.
  - The type of information to integrate into the response plans must be determined by the operations.
  - Industry information must be gathered by local fire stations working with industry. **(Planned completion: June 2012)**

Standardization of response activity and special response plans. **(Planned completion: December 2012)**

Plan implementation – Use of a public alert system when responding to a toxic gas leak. **(Planned completion: June 2012)**

Integration of PRIM in the emergency, succession and audit plans of boroughs and related municipalities. **(Planned completion: December 2012)**

*E2 Regulation program:*

- *Management model: the management model will be defined in a summary document on the E2 Regulation Program, including the allocation of human and financial resources. (Planned completion: January 2012)*

*Departmental regulations: Incorporation of the authority to ask industries for ‘an expert’s technical report to help assess the risk . . . level . . . of a process.’” (Planned completion: December 2011)*

### **3.1.4. INSPECTIONS CARRIED OUT BY THE MUNICIPALITY (SERVICE DE SÉCURITÉ INCENDIE DE MONTRÉAL AND DIRECTION DE L’ENVIRONNEMENT ET DU DÉVELOPPEMENT DURABLE)**

#### **3.1.4.A. Background and Findings**

The 2009-2013 fire safety cover plan for the agglomeration of Montréal makes fire prevention a top priority.

It mentions, among other things, that priority must be given to higher risks wherever they are on the territory, particularly for industries that report under the E2 Regulations.

Six programs have been adopted for implementing the plan and must be introduced between now and 2013. We primarily examined the progress and performance of one of these programs that focuses especially on the risk of major industrial accidents: the Programme d’inspection périodique des risques plus élevés. This program includes targeted actions with clear schedules, including:

- 2009 to 2013 – Priority given to the inspection of high- and very high-risk buildings in the most at-risk sectors (zones of risk), and populations made vulnerable because of their location, for each of the SSIM’s operational divisions. To do this, the SSIM is committed to carrying out 22,500 category 3<sup>11</sup> and 4<sup>12</sup> inspections in five years.
- 2010 to 2013 – Annual inspection and production and verification of response plans and special response plans. Also, making owners aware by targeting all high-risk and very high-risk buildings to ensure that elements critical to detecting and

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<sup>11</sup> High fire risk facilities.

<sup>12</sup> Extremely high fire risk facilities.

controlling fire outbreaks, evacuating occupants and response effectiveness are operational.

- 2011 to 2013 – Design and implementation of a fire safety management model for very high-risk industries (F1 use) and industries subject to E2 Regulations by using, the structure of existing JMICS or their equivalents where relevant.

Our examination of this program and its progress status allow us to make the following observations:

- No facilities subject to E2 Regulations (facilities in building categories 3 and 4) have received a planned inspection by the SSIM in the past three years. SSIM inspections have focused on the residential sector. We should point out that there have been individual responses required during this period (e.g., complaints, fire safety plan (FSP), compliance with particular standards) for 55% (30/55) of the facilities.
- The situation with response plans was dealt with in section 3.1.3.
- Inspection activities (work tools, inspectors' competency profiles, etc.) are not adapted to very high-risk industries. They focus above all on the residential sector. We note, however, that the SSIM has a program to design and implement a safety management model for this sector.
- There are no specific goals focusing mainly on industrial sector inspection activities and response plans.

As for inspections, the SSIM, DEDD and other government organizations (e.g., the MDDEP and Environment Canada) are working with the industrial sector to ensure compliance with laws and regulations. Even though government organizations have complementary jurisdictions, we observe that there is little interaction and coordination among the various inspection teams, including:

- for the SSIM and DEDD, inspected facilities and the industrial procedures causing risks are the same. Whether these services exist for protecting the environment or the population, they share a common interest, which is preventing industrial accidents. It should be possible to coordinate sharing work methods, tools and technical expertise.

- for the city (SSIM and DEDD) and government organizations, there has not been any agreement to share responsibilities and costs for industrial facilities among the various inspection teams.

Consequently, since industrial sector inspection programs are at the design and implementation stage, it is difficult for the SSIM to have a picture of how effective risk generators' preventive measures are and how comprehensive the list of identified at-risk facilities is. As there is no coordination of responses among stakeholders, this situation could also result in duplication of tasks and lack of optimization of human and financial resources.

#### **3.1.4.B. Recommendations**

**In order to strengthen and optimize industrial sector inspection activities, we recommend that the Service de sécurité incendie de Montréal produce an action plan for creating and implementing a fire safety management model for industries subject to the Environmental Emergency Regulations. This action plan should, in particular:**

- **specify objectives and schedule for industrial sector inspections**
- **plan to carry out systematic inspections of facilities subject to the Environmental Emergency Regulations as quickly as possible**
- **review the adequacy of competency profiles and work tools and methods for industrial sector inspections; review cooperation and coordination with other stakeholders (e.g., Direction de l'environnement et du développement durable and Environment Canada).**

#### **3.1.4.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] "E2 Program:*

- *The design of an action plan containing the elements from this recommendation will be part of the fire safety cover plan for the E2 inspection program. **(Planned completion: January 2012)***

*For consistency between Division du contrôle des rejets industriels inspections and the SSIM, it was agreed to:*

- *organize information sessions for Division du contrôle des rejets industriels and SSIM employees*
- *carry out several joint industry inspections (**Planned completion: March 2012**)*

*Send a letter to Environment Canada explaining the SSIM's risk management model and asking for Environment Canada's support to update the information submitted by businesses in compliance with E2 Regulations." (**Planned completion: September 2011**)*

### 3.1.5. PUBLIC ALERT SYSTEMS

#### 3.1.5.A. Background and Findings

In accordance with E2 Regulations, establishments that use or store HAZMAT that exceed critical quantities must define the measures planned for notifying people that could be harmed by an emergency situation.

When there is a major accident involving the loss of containment of a toxic substance, taking shelter, the best protection for individuals, is not a natural reaction. Information about appropriate behaviour for the population is therefore necessary.<sup>13</sup>

A standardized alerting procedure based essentially on the use of an alarm siren is the basic element of the population alerting mechanism. People can also be warned by other alert methods, particularly by telephone notification systems, television, the Internet and social networks (e.g., Facebook, Twitter).

The alerting mechanism must be followed quickly by a notice to the population detailing safety procedures to follow.

During our audit, we wanted to ensure that measures were taken to alert the population in an emergency.

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<sup>13</sup> *Risk Management Guide for Major Industrial Accidents*, MIARC, 2007 edition.

Our examination revealed that only 5% (3/55) of facilities subject to E2 regulations have:

- a siren-type alert system for quickly notifying people located inside high-risk areas
- an alert system integrated with the municipality's alert system

Without a timely warning, there is a risk that the population's safety will be adversely affected. In our opinion, it is fundamental that risk generators be under an obligation to set up public alert systems.

#### **3.1.5.B. Recommendations**

**We recommend that the Service de sécurité incendie de Montréal, with the Service des affaires juridiques et de l'évaluation foncière, take the necessary measures to require risk generators to install effective public alert systems so the public is adequately protected.**

#### **3.1.5.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] "By-law concerning service:*

- *The obligation for industries to have their public alert systems approved if they were installed to conform to E2 Regulations was integrated into prevention regulations.  
(Planned completion: December 2011)*

*Plan implementation – Use of public alert system to respond to a toxic gas leak.  
(Planned completion: June 2012)*

*Updating the [TRANSLATION] Guide to the Implementation of the Public Alert System."  
(Planned completion: June 2012)*

### **3.1.6. LAND-USE PLANNING**

#### **3.1.6.A. Background and Findings**

Establishing an appropriate distance between facilities at risk for major industrial accidents and residential areas is an effective way to reduce consequences for the public if an industrial accident should occur.

Determining these appropriate distances requires the application of a clear and reproducible methodology for evaluating consequences (radius of fallout) and the analysis of the population's vulnerability (land use).<sup>14</sup>

During our audit, we wanted to ensure that measures existed for determining and enforcing appropriate distances between facilities at risk for major industrial accidents and residential areas.

We observed that the city has not decided upon a methodology for determining and enforcing appropriate distances between industrial and residential uses. We note that the seminar on land-use planning and major industrial risks<sup>15</sup> held in Montréal in 2009 reported similar findings.

The current situation in the city shows that at-risk facilities are located very close to residential areas. In such cases, it is important to emphasize how important it is for establishments to manage their operational security well through fire prevention inspections, establishing links with emergency responders and notifying the population likely to be affected by an accident about the risks.

In light of the city's growth, some industrial-use areas are destined to be transformed or redeveloped for residential or commercial use. Since these lands are generally located near other industrial-use areas, we believe that an assessment of the distances between the industrial and residential uses must be conducted to minimize risks for the population.

Industrial businesses that wish to establish themselves in Montréal must request a certificate of authorization from the MDDEP in accordance with section 22 of the *Environment Quality Act* of Québec, which stipulates that:

*"No one may erect or alter a structure, undertake to operate an industry, carry on an activity or use an industrial process or increase the production of any goods or services if it seems likely that this will result in an emission, deposit, issuance or discharge of contaminants into the environment or a change in the*

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<sup>14</sup> *Risk Management Guide for Major Industrial Accidents*, MIARC, 2007 edition.

<sup>15</sup> *Rapport synthèse : Séminaire sur l'aménagement et les risques industriels*, Montréal, April 12, 2010.

*quality of the environment, unless he first obtains . . . a certificate of authorization.”*

They must also obtain permits from the DEDD in compliance with municipal by-laws relating to air and water quality.

We note that before delivering authorization certificates or permits, there is not always an evaluation of major industrial accident risk owing to lack of criteria regarding safe distances, among other things.

In the absence of criteria for determining safe distances, it is difficult to assess the acceptable risk of new projects to the population in the event of a major industrial accident.

#### **3.1.6.B. Recommendations**

**To protect the population, we recommend that the Service de sécurité incendie de Montréal, with the Direction du développement économique et urbain and the Direction de l’environnement et du développement durable, evaluate the possibility of regulating:**

- **mandatory safe distances between industrial and residential land use**
- **evaluation of major industrial accident risk before municipal permits are issued**

**We recommend that the Service de sécurité incendie de Montréal increase inspection activities for industrial facilities located near residential-use areas to ensure that the operational management mechanisms of these facilities are effective.**

#### **3.1.6.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] “Draft a letter requesting that the units involved assess the possibility of regulating reasonable distances around facilities that are at risk for major industrial accidents. (Planned completion: November 2011)”*

Regulation concerning the department:

- *Possibility of giving his/her opinion on 'elements of emergency preparedness related to land-use planning' added to Add the manager's jurisdiction." (Planned completion: December 2011)*

*[TRANSLATION] "Give priority to the inspection of industries located near industrial sectors to that will be part of the high-risk industry inspection program." (Planned completion: December 2012)*

## 3.2. HAZARDOUS MATERIAL MANAGEMENT BY CITY FACILITIES

### 3.2.1. SERVICE DE L'EAU

#### 3.2.1.A. Background and Findings

Drinking water treatment plants are the only city facilities to appear on the E2 Regulations register. They have declared that they use and store significant quantities of chlorine.

Given this fact, we examined the emergency measures surrounding the seven drinking water plants located in the agglomeration of Montréal.

Chlorine, a hazardous material, is currently used in significant quantities by the plants to disinfect water at the filtration stage as well as for water distribution. Water chlorination and ozonation are the technical processes currently used by the city during filtration. However, since ozonation leaves no residual product in the water, the water must still be chlorinated to prevent the proliferation of bacteria in the distribution network.

**Table 1—Volumes Treated and Disinfection Processes for Montréal Agglomeration Drinking Water Treatment Plants**

Plant	Volume (m <sup>3</sup> /year) in 2010	Water disinfection processes
Atwater	204,603,000	Chlorination
Charles-J.-Des Bailleurs	372,743,000	Ozonation and chlorination
Pierrefonds	23,550,000	Ozonation and chlorination
Lachine	22,269,000	Ozonation and chlorination
Sainte-Anne-de-Bellevue	1,076,000	Chlorination
<b>Ville de Montréal Total</b>	<b>624,241,000</b>	
Dorval	9,972,000	Chlorination
Pointe-Claire	22,217,000	Chlorination
<b>Island of Montréal Total</b>	<b>656,430,000</b>	

Although the plants have declared that they store large quantities of chlorine, as per E2 Regulations, compliance does not require them to produce emergency measures because the quantity they handle (0.907 metric tons) is below the largest reservoir's critical quantity (1.13 metric tons). Emergency plans have been created, however, by the Direction de l'eau potable of the Service de l'eau.

To reduce the risk of major industrial accidents caused by chlorine, the city has started a program to replace chlorine with sodium hypochlorite, a less dangerous substitute for chlorine.

The Atwater and Charles-J.-Des Bailleurs plants are currently converting their equipment and systems to use sodium hypochlorite. The work should be completed by the beginning of 2013. The Pierrefonds plant is presently studying the question of replacing equipment and systems. The administration plans on changing to sodium hypochlorite by the beginning of 2013. Managements at the Lachine, Dorval and Pointe-Claire plants are also planning to convert to sodium hypochlorite, but no schedule has been set yet. Sainte-Anne-de-Bellevue plant management does not anticipate converting (the plant closed in July 2011).

For our audit, we wanted to ensure that plant contingency plans were duly authorized by the appropriate authorities.

We observed that:

- Consequences in the event of an accident involving chlorine are significant and extend beyond facility boundaries.
- Emergency plans for accidents involving chlorine are documented. However, they have not been formally approved by the appropriate authorities (e.g., the SSIM or the Division sécurité of the Direction des immeubles).

Consequently, in the absence of duly authorized emergency plans, we cannot be sure that major stakeholders are adequately prepared to deal with an accident involving a chlorine leak in one of the city's drinking water treatment plants.

#### **3.2.1.B. Recommendations**

**We recommend that the Service de l'eau's Direction de l'eau potable take the necessary steps to obtain the required authorization for these drinking water treatment plants' emergency plans to ensure adequate risk management.**

#### **3.2.1.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] "Review of chlorine safety plans (CSP):*

- *Plan – Usine Atwater (Planned completion: December 2011)*
- *Plan – Usine Lachine (Planned completion: March 2012)*
- *Plan – Usine Dorval (Planned completion: March 2012)*
- *Plan – Usine Pointe-Claire (Planned completion: March 2012)*
- *Plan – Usine Pierrefonds (Planned completion: December 2011)*

*Review of FSPs:*

- *Plans for the Atwater, Charles-J.-Des Baillets, Lachine, Dorval, Pointe-Claire, Pierrefonds plants (Planned completion: November 2011)*
- *Plans for the valve section of the primary waterworks system (Planned completion: November 2011)*
- *Plans for drinking water reservoirs (Planned completion: November 2011)*

*Consultation for FSPs:*

- *Comité de planification des mesures d'urgence of the Direction de l'eau potable (Planned completion: February 2012)*
- *Manager of Direction de l'eau potable (Planned completion: February 2012)*
- *Safety officer designated by the Division de la sécurité of the Direction des immeubles in compliance with the Programme de gestion des mesures d'urgence dans les édifices municipaux (PGMUEM) for FSPs including HAZMAT (Planned completion: March 2012)*
- *Approval of standard FSPs by the safety officer designated by the Division de la sécurité of the Direction des immeubles in compliance with the PGMUEM (Planned completion: March 2012)*
- *Approval for FSPs involving HAZMAT by the SSIM (Planned completion: May 2012)*

*Consultation in relation to the CSP:*

- *Comité de planification des mesures d'urgence of the Direction de l'eau potable (Planned completion: March 2012)*
- *Safety officer designated by the Division de la sécurité of the Direction des immeubles in compliance with the PGMUEM for FSPs involving HAZMAT (Planned completion: April 2012)*
- *Centre de sécurité civile (Planned completion: May 2012)*
- *SSIM – HAZMAT department (Planned completion: June 2012)*
- *SSIM – Prevention department (Planned completion: September 2012)*
- *Approval by the manager of the Direction de l'eau potable." (Planned completion: October 2012)*

### 3.2.2. ECOCENTRES

#### 3.2.2.A. Background and Findings

Although ecocentres are not subject to E2 Regulations, because of their function they manage significant quantities of HAZMAT. Approximately 1,100 metric tons of HHW are recycled every year by the city through the ecocentres.

Ecocentres are material recovery centres, where Montréal agglomeration citizens dispose of their HHW, among other items.

Six ecocentres are located on the Island of Montréal:

- Écocentre de l'Acadie
- Écocentre de Côte-des-Neiges
- Écocentre de Saint-Michel
- Écocentre d'Eadie
- Écocentre de La Petite-Patrie
- Écocentre de Rivière-des-Prairies

A seventh ecocentre was to be opened before the end of 2011 in LaSalle borough.

The city has signed Agreements with ecocentre managements and contractors for the safe transportation and processing of HHW. The DEDD, which reports to the SDO, is responsible for the administration of these agreements and oversees suppliers' compliance with these agreements.

Although the ecocentres are not subject to E2 Regulations because the quantities of HHW stored are less than the prescribed thresholds, they are still subject to various HAZMAT and worker health and safety regulations and laws (e.g., provincial HAZMAT regulation and the *Act Respecting Occupational Health and Safety*).

All ecocentres are equipped with permanent shelters designed for HHW and equipment to protect worker health and safety.

For our audit, we wanted to make sure that the emergency plans were duly authorized by the competent authorities and that HHW risks were adequately defined and assessed.

Our audit revealed the following deficiencies:

- No risk analysis (standardized scenarios and alternatives) has been carried out by the city to assess whether effects of an accident involving HHW could extend beyond the boundaries of the ecocentres. The proximity of residential areas to some ecocentres increases the risks and consequences in case of an accident.

- Contingency plans for an accident involving HHW are documented. However, they have not been formally approved by the SSIM as required in the *National Fire Code of Canada*.
- Although HHW operational policies and procedures exist, they are not all documented and conveyed to key stakeholders (e.g., procedures to follow when storing incompatible HAZMAT and organization of occupational health and safety committees).
- Inspection programs, for managers and contractors to comply with city policies and procedures, have not been formalized and documented.

In the absence of risk analyses and duly authorized contingency plans, it is difficult to determine if current control mechanisms (e.g., the effectiveness of containment walls in the event of an accident and storage procedures for incompatible HHW) and emergency measures are adequate. Moreover, the deficiencies observed in policies and procedures as well as in inspection programs can result in existing accident-prevention measures going undetected and not operating properly.

#### **3.2.2.B. Recommendations**

**In order to ensure proper risk management, we recommend that the Direction de l'environnement et du développement durable:**

- A) determine and analyse the risks in the event of an accident involving household hazardous waste (standardized and alternative scenarios) with the Service de sécurité incendie de Montréal**
- B) obtain the necessary authorization for the ecocentre emergency plans from the Service de sécurité incendie de Montréal**

**In order to ensure adequate household hazardous waste management, we recommend that the Direction de l'environnement et du développement durable formalize:**

- C) city policies and directives, and communicate them quickly to managers**
- D) supervision activities with managers**

**3.2.2.C. Action Plan of the Relevant Business Unit**

A) [TRANSLATION] “Agreement for an assessment of the risks around the recycling of household hazardous waste at ecocentres. (**Planned completion: November 2011**)

*Submission of review report. (**Planned completion: March 2012**)*

*Implementation of recommendations, if necessary.” (**Planned completion: December 2012**)*

B) [TRANSLATION] “Confirmation of the authorizations required for emergency plans using the PGMUEM program for:

- *écocentre de l’Acadie (**Completed**)*
- *écocentre de La Petite-Patrie (**Completed**)*
- *écocentre de Côte-des-Neiges (**Planned completion: October 2011**)*
- *écocentre d’Eadie (**Planned completion: October 2011**)*
- *écocentre de Rivière-des-Prairies (**Planned completion: October 2011**)*
- *écocentre de Saint-Michel (**Planned completion: October 2011**)*
- *écocentre de LaSalle (**Planned completion: November 2011**)*

*Process completed for all ecocentres.” (**Planned completion: December 2011**)*

C) [TRANSLATION] “The Guide de gestion des écocentres integrates directives and processes that ecocentre managers must follow. Updates are made on a regular basis. (**Planned completion: October 2011**)

*Drafting a HHW management policy.” (**Planned completion: December 2011**)*

D) [TRANSLATION] “Drafting of a procedure work sheet (supervision activities).” (**Planned completion: February 2012**)

### 3.2.3. EMERGENCY MEASURES PLANS IN MUNICIPAL BUILDINGS

#### 3.2.3.A. Background and Findings

To comply with current regulations, building owners must establish and maintain a specific operational emergency plan for each targeted building. These measures include FSPs and fire drills.

Because some city buildings that were the subjects of our audit did not have duly authorized FSPs, we wanted to examine the situation of all city buildings.

Our audit led us to examine the PGMUEM, created by the Division sécurité of the Direction des immeubles. The PGMUEM was established to manage and monitor the update of city building emergency plans and fire drills.

In compliance with a 2006 agreement with the SSIM, the Division sécurité monitors the program, informs users and authorizes some FSPs produced by business units. FSPs for buildings where HAZMAT are used, stored and transported must be approved by the SSIM.

Our audit revealed that:

- 15% of city buildings (172/1161)<sup>16</sup> have a FSP registered with the PGMUEM.
- 42% of the FSPs in the PGMUEM (73/172)<sup>17</sup> have been duly authorized and updated.
- The same observation applies for documenting fire drills that have been held.

According to the information collected, these statistics may not represent the actual situation. Some documented and duly authorized FSPs may exist but are not registered with the PGMUEM. This may be because this program is offered to central departments and boroughs to help them draft their emergency measures plans; however, they are not obliged to use to it.

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<sup>16</sup> Data provided by the Division sécurité of the Direction des immeubles.

<sup>17</sup> *Idem.*

We have also observed that several business units are designing fire safety plans (Direction des immeubles, SSIM, central departments and boroughs). However, no unit has been designated to assess city compliance with current regulations.

Consequently, the city cannot demonstrate its level of compliance with current regulations because of the present situation regarding city building FSPs.

#### **3.2.3.B. Recommendations**

**To adequately protect the safety of employees and the general population in the event of fire in municipal buildings, we recommend that the Direction générale designate a business unit to:**

- **monitor a system that will ensure that central departments and boroughs produce emergency plans and take the steps required to obtain required approvals**
- **report to the Direction générale periodically on city compliance with current emergency plan regulations**

#### **3.2.3.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] “The Direction générale designates the Direction des immeubles of the Service de la concertation des arrondissements et des ressources matérielles as the unit responsible for following up on the recommendation in an appropriate manner.”*  
**(Planned completion: December 2012)**

## 4. APPENDICES

### 4.1. MAJOR RISKS FROM ACCIDENTS INVOLVING HAZARDOUS MATERIALS

**Table A—Major Risks from Accidents Involving Hazardous Materials, their Effects and their Consequences**<sup>18</sup>

Risk	Direct effect	Possible consequence for individuals depending on the event
Fire	Heat (thermal effect) and smoke (gas) emissions	<ul style="list-style-type: none"> <li>• Burn injuries</li> <li>• Inhalation of asphyxiating, even toxic, smoke</li> <li>• Death</li> </ul>
Explosion	Pressure wave and heat and smoke emission (gas)	<ul style="list-style-type: none"> <li>• Internal injuries to lungs and eardrums</li> <li>• Injuries from flying debris</li> <li>• Burns</li> <li>• Death</li> </ul>
Toxic fumes	Toxic cloud that is blown by the wind, dispersing in the air—may be visible or invisible	<ul style="list-style-type: none"> <li>• Nausea</li> <li>• Irritation of the eyes and skin</li> <li>• Lung damage</li> <li>• Cancers</li> <li>• Death</li> </ul>

<sup>18</sup> Based on *Risk Management Guide for Major Industrial Accidents*, MIARC, 2007 edition, and *Matières dangereuses : Savoir quoi faire*, Directeur de santé publique, Gouvernement du Québec, 2008, p. 12.

## 4.2. OVERVIEW OF LEGAL FRAMEWORK<sup>19</sup>

### ***Canadian Environmental Protection Act (1999) (Environment Canada) and Environmental Emergency Regulations (Environment Canada)***

- Obligatory registration of risk generators above specific thresholds, environmental emergency (E2) plans tested annually.

### ***Sustainable Development Act (MDDEP)***

- Establishes a definition of sustainable development for Québec.
- Introduces 16 principles to guide the action of the public service.
- Commits the government to adopt a single strategy for sustainable development applicable to all ministries and a significant number of organizations.
- Assigns responsibility to the premier to table the Government Sustainable Development Strategy in the National Assembly and report on its progress every five years;
- Commits departments and agencies concerned to identify actions they will take to help reach the strategy's governmental objectives and annually report results of their undertakings;
- Introduces sustainable development evaluation and accountability mechanisms to measure progress.

### ***Environment Quality Act (MDDEP)***

- Immediate notification of any spill to the MDDEP.
- Section 22: *"No one may erect or alter a structure, undertake to operate an industry, carry on an activity or use an industrial process or increase the production of any goods or services if it seems likely that this will result in an emission, deposit, issuance or discharge of contaminants into the environment or a change in the quality of the environment, unless he first obtains . . . a certificate of authorization."*
- Assessment and examination of the environmental impact of certain projects.
- Depollution attestation for industrial facilities.
- Land protection and rehabilitation.

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<sup>19</sup> Based on *Gestion des matières dangereuses résiduelles au Québec*, MDDEP, Gouvernement du Québec, 2005, p. 18.

**Regulation Respecting Hazardous Materials of Québec (MDDEP)**

- Describes the properties and storage conditions of HAZMAT, and requires that a record of materials produced or used be kept.

**Civil Protection Act (2001, MSP)**

- Section 8: *“Every person whose activities or property generate a major disaster risk is required to report the risk to the local municipality where the source of the risk is located. . . . The report must describe the risk-generating activity or property and specify the nature and location of the source of the risk, the foreseeable consequences of a major disaster and the area that could be affected. The report must also set out the measures implemented by risk reporter and the other means at the disposal of the risk reporter to reduce the probability or mitigate the consequences of a major disaster.”* (Pending a Québec government regulation defining the risk-generating activities or goods, the time allowed for producing the report and the conditions for providing the information).
- Section 133: *“Penal proceedings for an offence under section 8 . . . enforceable by a local municipality may be instituted by the municipality.”*
- Regional authorities have the responsibility for designing a civil protection plan (the draft plan must be produced within two years of the minister’s notice requesting that a plan be established).
  - This plan must set goals for reducing vulnerability to the risks of major disasters and the action required to reach these goals.
- The goal of this law is to protect people and property from disasters. This protection is ensured by preventative measures, response preparation, response in the event of real or imminent disaster and measures for restoring the situation after the event.

**Fire Safety Act (MSP)**

- Regional authorities must establish a fire safety cover plan determining fire protection objectives:
  - It must include an inventory, evaluation and classification of these risks.
  - It must include for each class of risk listed or each part of the territory defined, optimum fire protection objectives that can be achieved having regard to the measures and resources in place.

***Act Respecting Land Use Planning and Development (MAMROT)***<sup>20</sup>

- Local and regional authorities can designate buildings and human activities that generate major land use constraints and regulate this use in a suitable manner.
- Local municipalities can, on their own initiative and for reasons of safety and public health or general well-being, use zoning and subdivision regulations to regulate or prohibit land use, construction, works, or cadastral operations in the vicinity of a building or activity they recognize as being a source of major constraints.
  - A constraint is deemed major when a situation exceeds any limit of community acceptance.
  - There are two types of major constraints:
    - An environmental nuisance (smoke, dust, odour, vapour, gas, radiation, noise) so significant that its impact on citizens' well-being, their health and safety, results in permanent and continuous damage at a certain distance from the source (it is not a question of temporary inconveniences or annoyances)
    - A risk to the safety or health of citizens when there is danger of an accident with serious consequences (the risk is defined as the assessment of danger taking into consideration the probability of the occurrence of the feared event and the severity of its consequences).
- When the land-use and growth plan mentions sources of anthropogenic constraints and minimal regulations, municipalities must ensure their implementation through compliance processes.

***Act Respecting Occupational Health and Safety (LSST)***

- This law obliges all employers to ensure the safety and physical integrity of their employees.
- The majority of industries are required to implement a prevention program and also comply with more detailed application regulations.
- Businesses are subject to inspection by the Commission de la santé et de la sécurité du travail (CSST) and must enrol in the workplace accident insurance plan administered by the CSST.

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<sup>20</sup> Ministère des Affaires municipales, des Régions et de l'Occupation du territoire.

***Municipal Powers Act (MAMROT)***

- All municipalities have jurisdiction in environmental matters and can adopt regulations concerning the environment.

***By-law 2001-9 – Regulation on Wastewater Disposal in the Sanitation Works or Watercourses and on the Delegation of its Enforcement (Communauté métropolitaine de Montréal, enforced by the Ville de Montréal)***

- Ban on disposing or allowing disposal of liquids containing HAZMAT into a sewer system or a watercourse.
- Includes control measures and criminal provisions in the event of permit infractions and requirements.
- This regulation will be replaced by By-law 2008-47 on wastewater characterization obligation and By-law RCG 08-041 related to the discharge at purification works on the territory of the urban agglomeration of Montréal. These regulations will take effect on January 1, 2012.
  - Requirement to report in the event of accidental spills.

***By-law 2001-10 – Regulation on Air Emissions and the Delegation of its Enforcement (Communauté métropolitaine de Montréal, applied by the Ville de Montréal)***

- Ban on emitting HAZMAT into the air.
- Control measures and criminal provisions in the event of permit infractions and requirements.

***By-law CBFVM<sup>21</sup> c. M-3 – Regulation for Measures to Prevent Fires and for Public Safety (Ville de Montréal)***

- The city's SSIM can verify compliance of existing buildings and all construction or facilities to prevent fires and has the power to issue notices of non-compliance.
- The SSIM has jurisdiction over HAZMAT storage and handling.

***By-law CBFVM c. P-5.1 – Regulation on Fire Prevention (Ville de Montréal)***

- Fire prevention code that applies to the city.

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<sup>21</sup> Consolidated by-laws of the former Ville de Montréal.

# V.6. Workforce Plans



**Vérificateur général**  
de la Ville de Montréal



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## LIST OF ACRONYMS

ACM	associate city manager	SM	senior manager
BD	borough director	WMP	workforce management planning
HR	human resources	WP	workforce plan
MAP	municipal action plan		
SCH	Service du capital humain		

## V.6. WORKFORCE PLANS

### 1. INTRODUCTION

In October 2007, a presentation on retirement forecasts<sup>1</sup> from 2007 to 2012 given by the Service du capital humain (SCH) to the Commission permanente du Conseil municipal sur les finances, les services administratifs et le capital humain<sup>2</sup> revealed that 3,075 employees, or 10.6%, out of a total workforce of 29,022 permanent and temporary employees of the Ville de Montréal were likely to retire from their jobs. This would represent 16% of the total permanent workforce, or 2,829 permanent employees out of a total of 17,558.

The presentation also reported estimated retirement rates for each borough, central department and job category.

Table 1 shows the business units and job categories with a retirement rate equal to or greater than the critical level, which was set at 15%.<sup>3</sup>

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<sup>1</sup> Based on indicators such as reaching 30 years of seniority or age 65.

<sup>2</sup> Now known as Commission sur les finances et l'administration.

<sup>3</sup> The number of retirements in relation to the business unit's total workforce. SCH based the critical level on specialized human resources publications.

**Table 1—Retirement Forecasts for 2007 to 2012  
for Business Units and Job Categories**

2007 Diagnosis – Priorities			
Borough, department or body*		Job category*	
Bureau du vérificateur général	34%	Fire department staff	38%
Pierrefonds-Roxboro borough	20%	Police management	31%
Service des finances	19%	Senior staff	25%
Service de sécurité incendie de Montréal	17%	Senior managers	20%
Direction générale	15%	Administrative managers	16%
Service du capital humain	15%	Professionals other than scientists and general professionals	16%
Outremont borough	15%	Science professionals	15%
Verdun borough	15%		

\* Critical level: 15%.  
Source: SCH.

Taking these forecasts into account, the SCH determined employment action priorities to be fire department staff, police management and senior staff, whose retirement rates range from 25 to 38%, certain business units, namely the Service des finances, the Service de sécurité incendie de Montréal, and Pierrefonds-Roxboro, Outremont and Verdun boroughs. These forecasts and other factors, such as an aging public service, the Programme d'accès à l'égalité dans l'emploi, and the administration's commitment to review all activities, departments, operations and programs (RASOP), made it necessary to prepare workforce plans (WPs) to deal with these major challenges.

To prepare business units and city administration to meet these challenges, the SCH presented a municipal action plan (MAP), which included a procedure known as "workforce management planning" (WMP) to offer boroughs and central departments support, training and supervision in creating their 2009-2011 WPs.

The city administration's *Plan d'action 2008-2010: Réussir Montréal*,<sup>4</sup> adopted by the executive committee in July 2008, called the city's aging public service a major human resources issue.

<sup>4</sup> The city's 2008 budget was based on eight priorities defined in the 2008-2010 action plan. One of these, which concerns WPs, is entitled "Pour une administration encore plus performante."

In order to help implement this action plan, especially the [TRANSLATION] “for an even more effective administration” component, the SCH integrated the following objectives into its 2009-2011 business plan:

- design WPs and prepare a succession plan
- establish corporate support measures for implementing WPs

This was also reflected in the SCH budget documents listing the following WMP-related accomplishments:

- creation of a succession reference framework, guides and tools for preparing WMPs
- coaching boroughs and central departments in preparing their WPs
- producing a summary of city business unit WPs from 2009-2011
- producing a guide for using the Registre des postes for the city’s human resources (HR) units
- implementing training sessions for HR officers on operating the workforce database

In 2010, the SCH focused mainly on coordinating the establishment of corporate support measures and coaching business units on implementing their WPs.

For 2011, the SCH focused on executing corporate measures for highly vulnerable jobs, implementing the talent search program and promoting the city’s image as an employer by offering internships and being present at job fairs and in various educational institutions.

## **2. AUDIT SCOPE**

The purpose of our audit is first to ensure that the strategy followed by the SCH has helped achieve the expected results in its efforts to minimize the negative consequences of massive retirements and second, that WPs based on job categories and borough and central department needs were prepared.

Our audit activities therefore focused mainly on a detailed examination of the documents and tools designed by the SCH to support the WMP process, reports detailing assessments and findings and the 2009-2011 WPs of six business units. We

also met with key SCH staff and people directly involved in preparing the Outremont and Verdun borough WPs.

In addition, to place the WMP in the context of the Direction générale and SCH priorities that prevailed in 2007, we examined both the city's 2008-2010 action plan and its 2009-2011 Business Plan as well as SCH budget documents submitted to the Commission d'étude du budget du conseil municipal for the 2010 and 2011 budgets.

### **3. FINDINGS, RECOMMENDATIONS AND ACTION PLANS**

#### **3.1. WMP PROCESS AND TOOLS**

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

To ensure that all business units would follow a common, uniform procedure to prepare their WPS, thereby facilitating the preparation of an overall business plan, the SCH proposed a general approach supported by information gathering and analysis tools, including a MAP, which was submitted to the city manager and the business units in June 2008.

This plan, the main activities of which are presented in Table 2, set out a procedure in which business units prepare initial WPs, the 2009-2011 WPs, and then update subsequent WPs annually for 2010-2012, 2011-2013 and so on.

**Table 2—Municipal Action Plan**

Main activity	Overview of action required	Business unit	Documents to produce and deadlines
1. MAP	<ul style="list-style-type: none"> <li>Analysis of internal and external environments</li> <li>Preparation and adoption of MAP</li> <li>MAP and the WMP information tour of business units</li> <li>Presentation to the BD, ACM and SM*</li> <li>Mandate of WMP committees</li> </ul>	SCH	<ul style="list-style-type: none"> <li>MAP <b>June 2008</b></li> </ul>
2. WMP committees and support staff	<ul style="list-style-type: none"> <li>Establishment of business unit WMP committees and support staff</li> <li>Training of WMP committee members in each business unit</li> <li>Training of WMP committee support staff</li> </ul>	SCH and business units	<ul style="list-style-type: none"> <li>WMP committee</li> <li>Support staff <b>October 2008</b></li> </ul>
3. WMP process			
3.1. Environmental analysis	<ul style="list-style-type: none"> <li>Job market study</li> <li>Study of internal issues (organization, service requests, work conditions and atmosphere, etc.)</li> </ul>	Business units	<ul style="list-style-type: none"> <li>Interim report <b>December 2008</b></li> <li>WMP database</li> <li>2009-2011 WP <b>March 2009</b></li> </ul>
3.2. Manpower inventory	<ul style="list-style-type: none"> <li>Workforce status and staff profile for each business unit (positions, status, age, retirement date, etc.)</li> </ul>		
3.3. Vulnerability study	<ul style="list-style-type: none"> <li>Detection of vulnerable positions and jobs based on retirements, shortages, leaves and internal transfer</li> </ul>		
3.4. Needs forecasting	<ul style="list-style-type: none"> <li>Examination of business unit business plans</li> <li>Projected three-year needs</li> </ul>		
3.5. Action and WP priorities	<ul style="list-style-type: none"> <li>Determination of action priorities (based on timelines and degree of vulnerability)</li> <li>Determination of local and corporate support measures based on vulnerabilities</li> <li>Action plan and 2009-2011 WP</li> </ul>		
4. General summary of work	<ul style="list-style-type: none"> <li>Summary of 2009-2011 business unit WPs</li> <li>2009-2011 corporate support measures plan</li> </ul>	SCH	<ul style="list-style-type: none"> <li>Summary of WPs</li> <li>2009-2011 Corporate Support Measures Plan <b>May 2009</b></li> </ul>
5. Corporate support measures	<ul style="list-style-type: none"> <li>Deployment of 2009-2011 corporate support measures</li> <li>Analysis of internal and external environments</li> </ul>	SCH	<b>Starting in June 2009</b>
6. WP review and update	<ul style="list-style-type: none"> <li>Annual review and update of WPs for subsequent years</li> </ul>	SCH and business units	<b>Annual</b>

\* BD: borough director; ACM: associate city manager; SM: senior manager.

The key elements of this mechanism are the establishment of a WMP committee and internal team in each business unit to support the WMP process. Following completion of the five steps<sup>5</sup> proposed by the SCH, business units were required to prepare three documents:

- interim report on the progress status of the process at six months

<sup>5</sup> Environmental analysis (3.1); Manpower inventory (3.2); Vulnerability study (3.3); Needs forecasting (3.4); Action and WP priorities (3.5). See Table 2.

- staff database
- WP (2009-2011)

To coach and support business units in preparing their WPs, the SCH set up a team of HR advisors to work specifically on the WMP project. The SCH also designed and distributed a series of analysis tools to facilitate the process of gathering information, presenting it uniformly and integrating it into a section-based vision, i.e., either by business unit or globally for the whole city. Finally, the SCH prepared and delivered training sessions to WMP committee members and to support staff.

For information purposes, the following is a list of the main WMP tools or models<sup>6</sup> that the SCH created for the business units:

- Business unit work plans
- Overall assessment of external and internal environments
- Vulnerability exercise scope
- Detailed analysis of external and internal environments
- Sample report: Staff profile, including groups targeted by equal access to employment that are underrepresented in the business unit
- Gathering and analyzing information on staff and positions:
  - Manpower inventory
  - Detection of vulnerabilities
  - Vulnerability report and 2009-2011 support measures
- Analysis of vulnerable jobs or positions
- Employee profile analysis
- Interim report model
- 2009-2011 WP model

Several training sessions were organized by the SCH for business unit WMP committees and support staff. In all, 223 people, including 122 managers, participated in these sessions.

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<sup>6</sup> These tools and models are part of the *Guide d'utilisation des outils de gestion prévisionnelle de la main-d'œuvre* prepared by the SCH.

To facilitate data processing, the SCH created and introduced WMP software into the Registre des postes database in 2010 and designed instructional software for business units to learn the WMP program. This instructional software was distributed to all business units.

Examination of the support tools and models produced by the SCH, experiments with the WMP software tutorial during an exercise simulating the preparation and monitoring of a WP, and comments expressed at our meetings with staff users in two boroughs that we visited (Outremont and Verdun) lead us to conclude that:

- the models, tools and software tutorial provided by the SCH are simple and easy to understand and use
- the training seems to have been appreciated<sup>7</sup>

However, the people we met with in the Verdun borough reported that the first database the SCH gave business units to produce or complete their manpower inventories contained errors. In particular, people who had already retired or had been transferred to another business unit as well as eliminated vacant positions were included in the database. The original information in the WMP program came from the Registre des postes. When the 2009-2011 WPs were being prepared, business units were supposed to update the information contained in the WMP application as well as add information on position vulnerability and support measures. This WMP database was not updated systematically, and consisted of information gathered in 2009, as WPs for 2010-2012 and 2011-2013 were not produced.

It is fundamentally important that the information in this WMP database be valid and that it be updated periodically so that a qualitative and quantitative profile can be established to reflect the reality of staff changes in business units. It is therefore essential that a complete formal verification of all data and information in this database be performed before the 2012-2014 WPs are prepared.

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<sup>7</sup> The SCH did an evaluation of the participants' level of appreciation at each training session, but none of these evaluations was kept.

### 3.1.B. Recommendations

We recommend that the Service du capital humain and the business units, taking into account their respective responsibilities, make the necessary arrangements to ensure periodic updates of the information in the database used to feed the WMP application so that workforce plans that reflect the true staff situation in each business unit can be created.

### 3.1.C. Action Plan of the Relevant Business Unit

*[TRANSLATION] “Business units will be required to prepare standardized WPs based on the human resources objectives and problems in **highly vulnerable jobs**. A corporate plan will be prepared based on the business units’ plans and the city’s organizational priorities.*

*In order to do this, the SCH will ensure that the database reflects the existing organizational structure. This will allow each business unit to use the WMP software to obtain an accurate, up-to-date profile of its staff, process all the data and prepare a WP for 2012–2014 based on the weaknesses noted in this profile and forecasts for the next three years. Arrangements will also be made to ensure better follow-up and updating for the plans in accordance with the planned coordination and accountability mechanisms.”*  
**(Planned completion: April 2012)**

## 3.2. OVERVIEW OF 2009-2011 WORKFORCE PLANS

### 3.2.A. Background and Findings

Preparation of the WPs is the responsibility of the business units, which were required to prepare their 2009-2011 WPs and update the information in the WMP application using the tools provided by the SCH. This effectively means that the business units had to:

- complete and update their own databases
- produce their manpower inventories
- determine the degree of vulnerability (low, medium and high) of each job or position
- propose support measures for each degree of vulnerability.

The procedure in place to produce this information consisted of three steps:

- Business units receive their manpower inventories organized by job categories (managers, professionals, white collars, blue collars, etc.) and by positions (permanents, part-time, etc.).
- Managers within each business unit meet to verify and complete their manpower inventory and examine the vulnerability of positions and individuals as well as the risks of employee departures for:
  - positions (permanent, temporary, strategic or existing positions held by a single individual, etc.)
  - individuals (retirements, promotions, prolonged sick leaves, parental leaves, transfers or foreseeable transfers, etc.)
  - vulnerabilities (classify risks according to their degree of vulnerability [low, medium and high], risk being an expected or unexpected employee departure, a short-, medium- or long-term absence, hiring problems, etc.)
- Business unit managers determine local or corporate support measures to implement to offset the vulnerabilities detected.

Once the WMP committees and support teams were set up in October 2008, business units were required to produce various types of information or documents according to the established schedule, as indicated in the MAP. Table 3 illustrates this process.

**Table 3—Municipal Action Plan for 2009-2011 WPs**

Activity	Deadline	
	Planned	Actual
<b>1. City manager adopts a MAP</b> <ul style="list-style-type: none"> <li>• Visits to business units to present the WMP process to DAs, ACMs and SMs</li> <li>• Mandate of the business units' WMP committees</li> </ul>	June 2008	June 2008
<b>2. Business units establish WMP committees</b> <ul style="list-style-type: none"> <li>• Training of business unit WMP committee members</li> <li>• Training of WMP committee support staff</li> </ul>	October 2008	October 2008
<b>3. Project details communicated to all city business units</b> <ul style="list-style-type: none"> <li>• Communiqué to all city employees</li> </ul>	October 2008	October 2008
<b>4. WMP implemented by business units</b> <ul style="list-style-type: none"> <li>• Interim report</li> <li>• 2009-2011 WP by business units</li> </ul>	December 2008 March 2009	March 2009 May 2009
<b>5. Business unit work summarized and corporate support measures determined</b> <ul style="list-style-type: none"> <li>• Summary of the business unit WPs by the SCH</li> <li>• 2009-2011 corporate support measures plan</li> </ul>	May 2009	July 2009 September 2009
<b>6. Corporate support measures created and deployed</b> <ul style="list-style-type: none"> <li>• 2009-2011 corporate support measures plan</li> </ul>	Starting in June 2009	
<b>7. Annual review and update of business unit WPs</b>	Annual	

Table 4 presents a summary of the documents produced by the business units.

**Table 4—Business Units that Produced the Documents Expected for the 2009-2011 WPs**

Business unit	Interim report	2009-2011 WP	
		Database	WP
<b>BOROUGHES</b>			
Ahuntsic-Cartierville		Yes	Yes
Anjou	Yes	Yes	Yes
Côte-des-Neiges–Notre-Dame-de-Grâce	Yes	Yes	Yes
L'Île-Bizard–Sainte-Geneviève			
Lachine			
LaSalle			
Mercier–Hochelaga-Maisonneuve	Yes	Yes	Yes
Montréal-Nord			
Outremont	Yes	Yes	
Pierrefonds-Roxboro	Yes	Yes	Yes
Le Plateau-Mont-Royal		Yes	Yes
Rivière-des-Prairies–Pointe-aux-Trembles	Yes	Yes	Yes
Rosemont–La Petite-Patrie	Yes	Yes	Yes
Saint-Laurent		Yes	Yes
Saint-Léonard			
Le Sud-Ouest	Yes	Yes	
Verdun			
Ville-Marie	Yes	Yes	Yes
Villeray–Saint-Michel–Parc-Extension	Yes	Yes	Yes
<b>Number of boroughs that produced the documents requested</b>	<b>10</b>	<b>13</b>	<b>11</b>
<b>Production rate</b>	<b>53%</b>	<b>68%</b>	<b>58%</b>
<b>CENTRAL DEPARTMENTS AND BODIES</b>			
Bureau du vérificateur général			
Commission de la fonction publique	Yes	Yes	Yes
Direction des systèmes d'information	Yes		
Direction générale	Yes	Yes	
Service de la mise en valeur du territoire et du patrimoine		Yes	Yes
Service de police de la Ville de Montréal	Yes		
Service de sécurité incendie de Montréal	Yes	Yes	Yes
Service des affaires corporatives	Yes	Yes	Yes
Service des communications et des relations avec les citoyens	Yes	Yes	
Service des finances		Yes	Yes
Service des infrastructures, transport et environnement		Yes	Yes
Service du capital humain	Yes	Yes	Yes
Service du développement culturel, de la qualité du milieu de vie et de la diversité ethnoculturelle		Yes	Yes
<b>Number of central departments and bodies that produced the documents requested</b>	<b>8</b>	<b>10</b>	<b>8</b>
<b>Production rate</b>	<b>62%</b>	<b>77%</b>	<b>62%</b>
<b>Number of business units that produced the documents requested</b>	<b>18</b>	<b>23</b>	<b>19</b>
<b>Overall production rate</b>	<b>56%</b>	<b>72%</b>	<b>59%</b>

Source: SCH.

Results compiled from reports on the production of interim reports that the SCH produced in April 2009 and the assessment of work carried out in 2010 that it produced in February 2011 generally reveal that:

- 18 business units out of 32 (56%) produced their interim reports, or 10 boroughs out of 19 and 8 central departments and bodies out of 13
- 23 business units out of 32 (72%) updated their databases documenting the 2009-2011 WPs, or 13 boroughs out of 19 and 10 central departments and bodies out of 13
- 19 business units out of 32 (59%) produced their 2009-2011 WPs, or 11 boroughs out of 19 and 8 central departments and bodies out of 13

The following 13 business units did not produce 2009-2011 WPs:

- L'Île-Bizard–Sainte-Geneviève
- Lachine
- LaSalle
- Montréal-Nord
- Outremont
- Saint-Léonard
- Le Sud-Ouest
- Verdun
- Bureau du vérificateur général<sup>8</sup>
- Direction des systèmes d'information
- Direction générale
- Service des communications et des relations avec les citoyens
- Service de police de la Ville de Montréal

It should be noted that five of the business units that did not produce 2009-2011 WPs in 2007 had a projected retirement rate that was equal to or greater than the critical level (15%):

- Outremont borough (15%)
- Verdun borough (15%)

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<sup>8</sup> The WP was prepared at the Bureau du vérificateur général, but was considered to be an internal management document.

- Bureau du vérificateur général (34%)
- Direction générale (15%)
- Service de police de la Ville de Montréal (31%)<sup>9</sup>

For the 2009-2011 WPs produced by the business units, the following significant results are worth noting:

- Determination of jobs or positions classified according to their degree of vulnerability (low, medium or high):
  - 326 jobs out of 2 397, or 14%, were defined as vulnerable; 123 of these are categorized as highly vulnerable jobs by the business units (5% compared to 2 397 city jobs or 37% compared to 326 jobs declared to be vulnerable).
  - 23 of the jobs declared to be highly vulnerable are corporate jobs. Appendix 4.1 lists these jobs.
- Determination of corporate support measures that the SCH will implement.
- Determination of local support measures that the business units will implement.

To analyze highly vulnerable jobs, the SCH has set up three working committees with the units involved to determine the action strategies required locally and at the organizational level.

These committees itemized corporate support measures to be adopted by the SCH (attracting employees, building loyalty, working conditions, job atmosphere, succession plan and employment review).

The SCH then created a 2009-2011 corporate support measures plan, which was confirmed in June 2009 by the steering committee that was set up to make recommendations to the city manager.

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<sup>9</sup> Retirement rate of police executives.

**Our examination of all the results of this organizational approach leads us to the following findings:**

- To date, the assessment of the business unit production of 2009-2011 WPs is not complete. The city does not, therefore, have an accurate profile of its human resources with respect to the vulnerability status of all staff or jobs. This profile is even more inaccurate in December 2011, considering the various restructuring activities that have taken place since 2010 and the resulting staff transfers.
- Business units did not systematically perform 2009-2011 WP updates as Table 5 illustrates. Updates for the production of 2010-2012 WPs were performed by only 3 business units out of 32 (9%) and by only one business unit out of 32 for the 2011-2013 WPs.

**Table 5—Changes in WP Production Rates or Updates since 2009**

Business units	2009-2011 WP		2010-2012 WP		2011-2013 WP	
	Database	WP	Database	WP	Database	WP
Boroughs	13	11	2	2	1	1
Production rate	68%	58%	11%	11%	5%	5%
Central departments and bodies	10	8	1	1	0	0
Production rate	77%	62%	8%	8%	0%	0%
<b>Total – Business units</b>	<b>23</b>	<b>19</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>1</b>
<b>Production rate</b>	<b>72%</b>	<b>59%</b>	<b>9%</b>	<b>9%</b>	<b>3%</b>	<b>3%</b>

Number of boroughs covered: 19.  
Number of departments or bodies covered: 13.  
Source: SCH.

- Business units are responsible for preparing WPs and updating their databases. The role of the SCH is to coach and advise the business units. However, even though support tools were placed at the business units' disposal, and even though training sessions and assistance were provided by the SCH, the boroughs were still under no obligation to provide the information requested, which might largely explain the lack of commitment shown by some business units and the gradual abandonment

that has been noted. Of course, this situation is not unrelated to the poor results received from all the business units.

Updating the business unit database is the starting point for monitoring changes in staff and preparing a revised WP. Updating is essential to continue producing subsequent WPs. Failure to update the WMP database compromises this monitoring.

Setting up committees to analyze highly vulnerable jobs and their particular characteristics is a worthwhile initiative, because the SCH can rely on business unit expertise and knowledge about the specific nature of these jobs, their requirements and their operating environment.

Preparing and monitoring a 2009-2011 action plan for implementing corporate support measures as well as the establishment and implementation of local support measures are worthwhile initiatives, but they must be based on a periodic monitoring mechanism, and they must be documented.

Several factors currently impact WPs, including:

- mass retirements projected for 2012-2014, especially among executives
- the city's positioning to recover municipal expertise lost in targeted jobs
- the increase of the management-to-staff ratio in the medium term
- equal access to employment
- the hiring freeze
- city budget problems (e.g., pension funds)
- external competitiveness
- ability to attract and retain the best talent, especially in strategic positions

These factors, along with other constraints such as borough autonomy in HR management, expected budget cuts for 2012 and the rationalization of resources (elimination of 1,000 jobs), are making it increasingly necessary for the administration to reaffirm its intention to support the SCH in preparing a WP that will allow it to make strategic choices and take cohesive action in the area of HR management.

This stated support of an organizational WP would also encourage:

- business units, by securing their commitment to the general objectives using sectional WPs that are updated and monitored.
- the SCH, by targeting other actions to help make corporate support measures effective in order to offset large-scale retirements while implementing a mechanism for monitoring and evaluating their medium- and long-term effects.

In short, the Direction générale must make the appropriate arrangements to provide the SCH with the means necessary to exercise its leadership in workforce management, especially in the preparation of an organizational WP, while respecting business unit jurisdictions. These arrangements could be made through:

- section 57.1 of the *Charter of Ville de Montréal*, for a strategic operation
- section 46 of the *Charter of Ville de Montréal*, for a city council resolution that would make WPs mandatory
- an amendment to the *Politique de dotation et de gestion de la main-d'œuvre de la Ville de Montréal*

In brief, the WMP is currently characterized by an incomplete organizational WP, a gradual abandonment of sectional WP production by the business units, an out-of-date database supplying WPs, an incomplete vision of support measures (both corporate and local) that lacks follow-up, and business units that are not required to produce information that is essential to cooperative human resources management.

With respect to this finding, it is important that the Direction générale use every means at its disposal to encourage all business units to help reinforce the current strategy in order to minimize the impact of massive retirements.

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

**We recommend that the Direction générale make appropriate arrangements to obtain information from all business units that will allow the Service du capital humain to prepare an organizational workforce plan to support the *Politique de dotation et de gestion de la main-d'œuvre de la Ville de Montréal*, which was approved by the executive committee on September 28, 2011.**

We also recommend that the Direction générale approve the implementation of an organizational strategy that will help minimize the effects of large-scale workforce departures and establish a realistic timeline while taking concrete steps to continue the work already begun to provide high-quality service to all citizens.

With this strategic issue in mind, we recommend that the Service du capital humain report periodically to the Direction générale on the progress of approved strategic projects in relation to the established schedule.

### 3.2.C. Action Plan of the Relevant Business Unit

- 1) [TRANSLATION] *“The SCH will suggest appropriate means of obtaining the information that will be needed for preparing the WP and keeping it current to the city administration.” (Planned completion: April 2012)*
  
- 2) [TRANSLATION] *“The SCH will submit for approval an updated corporate strategy and schedule along with accountability mechanisms for implementing the plan that will be selected.” (Planned completion: April 2012)*
  
- 3) [TRANSLATION] *“The SCH will implement a management score card so that it can effectively monitor the project progress and action taken at both the corporate and local levels (corporate WP). (Planned completion: September 2012)*

*Every year, an assessment of actions confirmed in the WPs will be submitted to the Direction générale.” (Planned completion: December 2012)*

## 3.3. WMP MANAGEMENT STRUCTURES AND ACCOUNTABILITY

### 3.3.A. Background and Findings

The SCH proposed and set up two WMP management structures: one for business units and one for the organizational management of the WMP process. Table 6 summarizes stakeholders' main responsibilities toward the WMP.

Table 6—Roles and Responsibilities

<b>WMP management structures</b>				
<b>Component: business units</b>		<b>Component: organizational</b>		
<b>DA, ACM, SM</b>	<ul style="list-style-type: none"> <li>• Confirm the WMP committee's mandate</li> <li>• Ratify the 2009-2011 WP</li> <li>• Refer the WP to the borough council or city manager for approval</li> </ul>	<b>City manager</b>	<ul style="list-style-type: none"> <li>• Approves the process and the MAP</li> <li>• Ensures follow-up</li> </ul>	
<b>WMP committee</b>	<ul style="list-style-type: none"> <li>• Refers decisions and the definitive WP to the DA, ACM and SM</li> </ul>	<b>Steering committee</b>	<ul style="list-style-type: none"> <li>• Confirms targets and draws up recommendations for the SM of the SCH and the city manager</li> </ul>	
<b>HR team</b>	<ul style="list-style-type: none"> <li>• Supports managers and the WMP committee with the analytical tools provided by the SCH</li> </ul>	<b>SCH</b>	<ul style="list-style-type: none"> <li>• Devises the WMP process, tools and guides</li> <li>• Devises the WMP system</li> <li>• Provides manpower inventory data</li> <li>• Creates support measures for business unit WPs</li> </ul>	
<b>Divisions</b>	<ul style="list-style-type: none"> <li>• Implement the WMP process</li> <li>• Confirm the WMP committee's mandate                             <ul style="list-style-type: none"> <li>– Environmental analysis</li> <li>– Manpower inventory</li> <li>– Vulnerability study</li> <li>– Three-year workforce forecasting plan</li> <li>– Establishment of action priorities and a WP</li> </ul> </li> </ul>			Through its WMP action group
<b>Management committee</b> <b>Managers</b>				
<b>Business units</b>	<ul style="list-style-type: none"> <li>• Confirm the process and their commitment</li> <li>• Set up a WMP committee</li> <li>• Implement the process and produce:                             <ul style="list-style-type: none"> <li>– the interim report</li> <li>– the 2009-2011 WP</li> </ul> </li> <li>• Have the 2009-2011 WP approved by the borough council or the city manager</li> </ul>			

### WMP MANAGEMENT STRUCTURE—BUSINESS UNIT COMPONENT

This structure is designed to ensure that business units prepare and coordinate WPs. For this purpose, the SCH has set up 38 WMP committees with the business units: one in each of the 19 boroughs, the other 19 distributed among the 13 central departments. These WMP committees are assisted by an internal HR team. Each WMP committee

consist of an executive, managers and an HR officer. These WMP committees implement the five-step work included in the WMP process:

- environmental analysis
- manpower inventory
- vulnerability study
- three-year workforce forecast plan
- action priorities and a specific action plan (WP)

A work schedule that the SCH proposed to the business units had production of WPs planned for March 2009, as shown in Table 7.

**Table 7—Summary of Actions and Production Schedule for Business Unit WPs**

Stakeholders	Action	Schedule
<b>DA, ACM, SM</b>	Appoint WMP committee members	August 2008
	Approve WMP committee work plan	
	Approve interim report	December 2008
	Monitor project progress	
	Approve the 2009-2011 WP	March 2009
	Ensure WP implementation	2009-2011
<b>WMP committee</b>	Choose WMP committee support staff and provide training and guidance	September 2008
	Produce work plan, including communication plan	October 2008
	Implement communication plan	
	Analyze the environment and establish the scope of the vulnerability exercise	
	Have the scope of the vulnerability exercise approved	
	Receive interim report and submit to the DA, ACM and SM	December 2008
	File interim report with the SCH	
	Receive 2009-2011 WP and submit to the DA, ACM and SM	March 2009
<b>Division management committees</b> <b>Managers and support staff</b>	Become familiar with the orientations of the WMP committee and the main issues communicated by management	
	Produce a staff profile (graphics, histograms) and analyze results	
	Meet with the managers involved	
	Establish the preliminary vulnerability findings	
	Prepare the unit's three-year WP for the WMP committee	December 2008
	Update WP data	Ongoing

The timeline also included a mechanism for having key elements, such as the business units' internal work plan, interim reports and 2009-2011 WPs, approved by business unit administrators, who were also responsible for monitoring project progress.

Here are our findings regarding key elements of the business units' roles, responsibilities and actions with respect to the WMP:

- Even though about 60% of the business units produced interim reports and the WPs requested, neither we nor the SCH are able to confirm that the mechanism was monitored, as required.
- In the boroughs we visited, no documents, (detailed work plans, agendas and minutes of working meetings, internal work progress reports) other than the overall project completion schedule prepared by the SCH, were available to show what work and monitoring methods were being used.
- Even though the SCH specified in the WMP guide that the boroughs were required to have their 2009-2011 WPs approved by the borough council and the central departments were required to have their 2009-2011 WPs approved by the city manager, our research shows that only one borough had its interim report and its 2009-2011 WP approved by its borough council.
- The SCH was not able to confirm the approval of 2009-2011 WPs by either the borough councils, or the city manager, as the case may be.

#### **WMP MANAGEMENT STRUCTURE—ORGANIZATIONAL COMPONENT**

This structure is organized around the SCH, whose role is to advise and support the business units, design organizational tools and systems, submit the action plan to authorities, spearhead the steering committee, deploy corporate support measures and **report periodically to the city manager.**

Its steering committee, composed mainly of business unit managers, is mandated to confirm targets and formulate recommendations to the SM of the SCH and to the city manager.

In light of the information received, the steering committee's present activities and contributions, after several working meetings, have been devoted mainly to validating or confirming conclusions and drawing up recommendations to the SCH concerning:

- the management framework for succession
- the guide for preparing the succession plan
- MAP
- the summary of interim reports
- assessment of work carried out in 2010
- 2009-2011 corporate support measures plan

Our examination of the organizational component of the WMP management structure in place and our review of documents produced for accountability have led us to the following conclusions:

- The WMP management structure and the documents on the roles and responsibilities of the various entities specified that the steering committee was required to obtain the city manager's approval for the MAP and to report to the city manager periodically regarding its progress. Because no such documentation existed, we were not able to verify whether the then city manager (Mr. Roquet) or his predecessor were formally informed and whether they approved the MAP officially, as required.
- The reports produced by the SCH placed more emphasis on content and appeared to leave aside aspects of follow-up management of a mechanism for producing WPs and implementing support measures. We noted a lack in this area of documents attesting to the regular, systematic monitoring of activities in the business units.
- The fact that the steering committee did not see fit to recommend that the Direction générale consider the WMP to be a strategic issue made it difficult to receive all the information requested and all the WPs from all the business units.
- Four of the business units that did not produce their WPs had managers who were on the steering committee, which had a total of eight members. This finding raises serious questions about the steering committee's collective will to fulfil all its responsibilities, particularly with regard to obtaining those WPs.

In our opinion, the WMP initiative is a large-scale organizational project whose medium- and long-term results will greatly help the city administration achieve its human resources objectives with respect to providing services to citizens. This project must not only be continued and monitored effectively, it must also be provided with a management structure that perfectly integrates:

- local coordination for preparing and updating sectional WPs and following up on local support measures adopted by business units (boroughs and central departments)
- general coordination, under the supervision of the SCH, for consolidating sectional WPs into an organizational WP and for the implementation of corporate support measures, and their follow-up.

In addition to being integrated, these coordination mechanisms must be supported by score cards and periodic reports for each level of responsibility—local (business units) and organizational (SCH)—under the guidance of a coordinating body (steering committee) in an accountability mechanism that allows the Direction générale to follow-up and make the appropriate decisions. Unfortunately, we were not able to note this situation in our audit.

### **3.3.B. Recommendations**

**We recommend that the Direction générale review the responsibilities assigned to the steering committee or equivalent committee and establish an appropriate accountability mechanism for following up on policy directions retained by both the Direction générale and the Service du capital humain.**

**We recommend that the Service du capital humain review the operation of coordination mechanisms and put appropriate score cards in place to remain informed by all business units on the progress of sectional projects for the purpose of establishing an organizational profile that will facilitate decision-making regarding the workforce.**

### 3.3.C. Action Plan of the Relevant Business Unit

- **DIRECTION GÉNÉRALE**

[TRANSLATION] “The SCH will submit for approval updated corporate strategy and schedules, along with accountability mechanisms for implementing the plan that will be selected.” **(Planned completion: April 2012)**

- **SERVICE DU CAPITAL HUMAIN**

[TRANSLATION] “The WMP structure will be revised as follows:

- The sectoral WMP process will be handled by the BD, ACM and SM of each business unit along with the management team.
- Specialist SCH advisors will be appointed to business units to plan the process and assist in preparing WPs, as needed. Business unit HR teams can provide additional support.
- A score card will be designed to monitor project progress in each business unit and the results for highly vulnerable jobs.
- The SCH advisors, with their assigned units, will coordinate the monitoring of management teams accountable for results and, if necessary, WP updating.
- The SCH, with the appointed advisors, will ensure corporate coordination for consolidating sectoral WPs and preparing, completing and monitoring corporate WPs, including support measures.” **(Planned completion: April 2012)**

## 4. APPENDIX

### 4.1. LIST OF HIGHLY VULNERABLE CORPORATE JOBS

**Table A—Highly Vulnerable Corporate Jobs by Category**

<b>Job titles</b>
<b>Executives</b>
Borough director (> 60,000)
Administrative services manager (> 60,000)
Director – Culture, Sports, Loisirs, Développement social
Director – Aménagement urbain et services aux entreprises
<b>White-collar workers</b>
Traffic and parking technical officer
Municipal engineering technical officer
Library technician
Building inspector
Public lands inspector
Budget clerk
Administrative support clerk
Executive secretary
Life guard
<b>Forepersons</b>
Foreperson – Aqueducts and sewers
Foreperson – Horticulture and parks
Foreperson – Sanitation and works (unionized)
Foreperson – Sanitation and works (non-unionized executive)
<b>Professionals</b>
Communications officer
Urban planning advisor
Real estate manager
Financial resources management advisor
Engineer
<b>Blue-collar workers</b>
Plumber

Source: SCH.

# V.7. Montréal's Self-Insurance Approach



**Vérificateur général**  
de la Ville de Montréal



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## V.7. MONTRÉAL'S SELF-INSURANCE APPROACH

### 1. INTRODUCTION

Given the size of its territory and the range of its activities, the Ville de Montréal (the city) is exposed to the risk of events or incidents causing harm to others or of the city compromising its own assets.

Regarding civil responsibility, while the Civil Code of Québec and the *Cities and Towns Act*, among others, include exemptions that could apply to municipalities,<sup>1</sup> various situations may nevertheless touch on the city's responsibility, depending on the specific circumstances, and result in a claim being filed against it. This could involve personal injury or property damage causing harm to third parties, for example:

- injury due to a fall on the sidewalk
- damage to property (flood) due to water main breaks or sewer backups
- damage to a vehicle due to a fallen branch from a tree belonging to the city

The city is also exposed to the following risks, among others:

- incidents (e.g., breakage, minor accident), disasters (e.g., fire, flood), thefts or vandalism compromising the stability of various assets (e.g., buildings, vehicle fleet, drinking water and wastewater treatment plants, computer equipment) required to carry out its activities
- crimes, misappropriation of funds or fraud

Following evaluation, the city must decide whether to transfer all or part of these risks to a private insurance company (insurance contract) or opt to assume them itself and cover the total costs of damages when such risks materialize (self-insurance).

It is our understanding that, for some years now, the city has been self-insuring its risks to cover various claims related to both civil responsibility and property damages as well

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<sup>1</sup> For example: damage caused to a vehicle's tires or suspension due to the condition of the roadway. *Cities and Towns Act*, section 604.1.

as any other crimes committed. However, in situations where the city hires contractors to perform work (e.g., snow removal operations or road repairs) for example, or it authorizes the occupation of premises belonging to it (e.g., lending premises to community organizations), it transfers the risks to the contractors or organizations in question by requiring them to take out, at their own costs, a civil responsibility insurance policy in which the city is designated as a co-insured for protection of up to \$5 million.

Two city business units handle the claims filed. The Bureau des réclamations, which comes under the Service des affaires juridiques et de l'évaluation foncière, handles all civil responsibility claims (citizen claims), while the Direction du budget, under the Service des finances, handles claims related to theft or property damage from city business units.

Payment, when applicable, of claims assumed by the city under the self-insurance system is charged to the [TRANSLATION] "Contingency allotment" budget item. It should be mentioned that the *Charter of Ville de Montréal* (the Charter) sets out, in section 94 of schedule C, that the city is required to appropriate an annual amount of at least 1% of the total budget to cover unforeseen expenses, claim settlement and payment of court verdicts. To illustrate this, the [TRANSLATION] "Contingency allotment" budget item indicated a budgeted amount of \$43.3 million and \$45 million for 2010 and 2011 respectively.

In effect, the statistics compiled by the Bureau des réclamations for claims actually submitted show claims paid and charged to the contingency budget item totalling \$3.1 million in 2011 and \$1.9 million in 2010.

As for the claims handled by the Direction du budget, Table 1 shows the data compiled on the claims paid and charged to the contingencies item.

**Table 1—Direction du Budget Contingencies**

Expenditure	Year		Total
	2010	2011	
<b>Buildings</b>	\$782,418	\$2,807,499	\$3,589,917
<b>Automotive equipment</b>	\$477,393	\$302,224	\$779,617
<b>Total</b>	\$1,259,811	\$3,109,723	\$4,369,534

Therefore, the total amounts paid and charged to the contingency item for 2011 and 2010 are displayed in Table 2.

**Table 2—Contingencies per Unit**

Business unit	Year	
	2010	2011
<b>Direction du budget</b>	\$1.3M	\$3.1M
<b>Bureau des réclamations</b>	\$1.9M	\$3.1M
<b>Total</b>	\$3.2M	\$6.2M

We did not obtain any statistics on the value of damages or losses attributable to other types of city property, including computers, tools, communication devices and office supplies. According to the Service des finances, it appears that incidents involving these types of property are generally handled by the business units through their designated budgets, in accordance with the provisions of the Charter (section 143.2).

It should also be mentioned that, where the city has required contractors hired to perform work or organizations with which it does business to take out a civil responsibility insurance policy, the Bureau des réclamations is in charge of sending claims to the contractor or occupant of the premises as well as to their insurance companies for processing.

## 2. AUDIT SCOPE

The purpose of our audit was to determine the existence of market studies or specific analyses to support the decision of the city to self-insure its risks rather than take out a full or partial insurance contract with an insurance company.

This audit was performed with the Service des affaires juridiques et de l'évaluation foncière, specifically with the Bureau des réclamations, but also with the Direction du budget. It dealt primarily with 2010 and 2011; however, information from previous years was also considered.

### **3. FINDINGS, RECOMMENDATIONS AND ACTION PLANS**

#### **3.1. LACK OF COST-BENEFIT ANALYSIS FOR THE RISK INSURANCE OR SELF-INSURANCE OPTION SELECTED**

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

According to the information obtained from all the people involved and from as far back in time as it was possible to go, it appears that no cost-benefit analysis was performed to support the city's decision to self-insure its risks. Everyone consulted agreed that this mode of operation was in existence at the city well before the 2002 municipal merger. Some people we met with recalled that at the time of the municipal merger, the issue of self-insurance had been a topic of discussion due to the fact that some boroughs from the former suburban municipalities had insurance policies with private insurance companies. Following these discussions, the decision was made to adopt the self-insurance approach for all city business units. No document could be found in support of this decision, however.

We question the validity of the self-insurance solution selected by the city because no recent measures have been taken to validate the strategy selected with a documented analysis evaluating what it would actually cost the city to take out full or partial insurance policies rather than opt for self-insurance:

- Would it be more cost effective to transfer the risks that may affect certain categories of assets to an insurance company?
- Are there insurance companies that would agree to cover an excess portion of the risks that a large-scale municipality such as the city may face in the event of a major disaster (e.g., major flood, major strategic building fire)?
- What would the expected cost of insurance premiums based on the applicable deductibles be?

At this time, it appears that several questions do not have a clear answer or the answers are based on assumptions.

Furthermore, the information obtained from the representatives contacted in the cities of Québec, Laval, Longueuil and Gatineau revealed that different strategies have been adopted with regard to risk insurance. Two of them (Québec and Longueuil) opted for 100% self-insurance while the other two (Laval and Gatineau) opted for a combined approach wherein self-insurance is used for civil responsibility damage and a private insurance company is used for some property damage to (e.g., vehicles, buildings). According to the information received, the cities of Québec and Gatineau reassess the chosen strategy on an annual basis.

We recognize that various factors specific to the city may argue in favour of the self-insurance approach retained, in particular the:

- size of the city administration and the territory covered (e.g., 1.6 million inhabitants in 2011, 19 boroughs, each with their own distinct governance structure)
- complexity of role- and responsibility-sharing given the organizational structure in place and the difficulties that could result from it in terms of attributing insurable risks
- need to precisely determine the city's insurance needs to create specifications in the event that a call for proposals would be considered
- need to precisely establish a detailed list of all assets owned or leased by the municipal administration, to provide a potential insurance company, and all the difficulties that go along with such an exercise

Nevertheless, even though the self-insurance option may ultimately prove to be the most cost-effective solution for the city, we feel that it is currently difficult to confirm the merit of this option given the lack of evidence available. We believe that it may be appropriate to perform a cost-benefit analysis for the purpose of confirming the choice made by the city with regard to risk insurance. To do so, the insurance company market could be polled by way of calls for proposals or any other method deemed appropriate.

### 3.1.B. Recommendations

To confirm, with back-up evidence, that the self-insurance option currently retained is still the most cost-effective solution for the city based on the risks that characterize it, we recommend that the Direction générale:

- evaluate the relevance of performing a cost-benefit analysis and documenting the results
- designate, if necessary, the business unit that will be responsible for taking the necessary steps to carry out and report on such an analysis

### 3.1.C. Action Plan of the Relevant Business Unit

*[TRANSLATION] "The Service des finances has been designated as the unit responsible for taking the necessary steps to carry out and report on the analysis. (Planned completion: April 2012)*

*Evaluate the relevance of performing a cost-benefit analysis of the self-insurance approach and documenting the results." (Planned completion: June 2012)*

# V.8. Tuition Fees Reimbursement Program



**Vérificateur général**  
de la Ville de Montréal



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## V.8. TUITION FEES REIMBURSEMENT PROGRAM

### 1. INTRODUCTION

We received information on conditions and privileges that were granted to an employee for university-level training that was paid for by Ville de Montréal (the city). The complainant questioned whether these conditions and privileges were compliant with the city's management frameworks and policies. We did not detect any irregularities in violation of the city's management frameworks, guidelines or policies in our investigative and forensic audit that would make it necessary to take action against the people involved. However, after reviewing these management frameworks, guidelines and policies, we find that improved control is needed. Our recommendations should aim to all business units.

### 2. AUDIT SCOPE

For the purposes of this report, our audit focused on a review of the city's management frameworks, guidelines and policies for the Tuition Fees Reimbursement Program. Our audit was conducted with various stakeholders in the Service du capital humain, which provided us with more extensive information on this program.

### 3. FINDINGS, RECOMMENDATIONS AND ACTION PLANS

#### 3.1. MANAGEMENT FRAMEWORKS FOR THE TUITION FEES REIMBURSEMENT PROGRAM

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

The Direction de la dotation, du développement organisationnel et de la rémunération des cadres of the Service du capital humain (Direction du développement) plays an advisory role with human resource officials in the boroughs and central departments by informing them of the Tuition Fees Reimbursement Program and by keeping them up to date. No centralized control exists for this program since 2001.

The city has a program offering financial assistance to employees who wish to continue their studies. Under this program, the training must be related to either the employees' work or to a promotion they seek. Outside of this program, other terms and conditions are established for seminars, professional development workshops, conferences, colloquia, etc. If the request for training exceeds the usual standards, the business unit should contact the Service du capital humain so that it can advise the manager and the employee. All business units inform them of terms and conditions for reimbursing tuition fees and approve the choice of private institution.

On January 1, 2008, the city adopted a procedure requiring employees to complete forms to apply for tuition fees reimbursement and request approval for training. These forms must be sent to the human resources advisor of the employees' business unit.

The city's general rule is to reimburse 50% of the fees<sup>1</sup> for general professionals and 100%<sup>2</sup> of the fees for managers. When training is requested by their supervisors, professionals may possibly be reimbursed for all of the training. Professionals and managers alike are reimbursed for these fees upon presenting proof of successful completion of the training when they pass a course or obtain a diploma.

According to the professionals' collective agreement, if training is undertaken upon the employer's request and *[TRANSLATION]* "if the courses are held during working hours, there is no salary deduction. If the courses are held outside of working hours, the duration of the courses is deducted from the working hours in the regular week, all subject to agreement between the employer and the professional concerned." There are no provisions releasing employees from work for time devoted to studies, either in the professionals' collective agreement or conditions and benefits for managers.

The role of the Service du capital humain is to advise the boroughs and central departments. It is also responsible for establishing best practices regarding improvements to the Tuition Fees Reimbursement Program. However, it does not participate in the decision-making process when an employee is authorized to take

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<sup>1</sup> Source: Section 4.6.7 of the *Convention collective entre la Ville de Montréal et le syndicat des professionnelles et professionnels municipaux de Montréal*, in force until December 31, 2010.

<sup>2</sup> Source: Section 10 of the directive *Conditions et avantages des cadres de direction et des cadres administratifs de la Ville de Montréal*, updated November 18, 2009.

training. To ensure equitable management for all of the city's employees, the Direction du développement recommends that all business units comply with these terms and conditions to avoid creating precedents within administrative units. These units are accountable and responsible for ensuring that the conditions and privileges granted are reasonable in view of the relevant directives.

### **SPECIFIC DETAILS OF THE CASE REVIEWED**

A manager and an employee made a verbal agreement that the city would pay the substantial tuition fees for an employee's university-level training in advance. The verbal agreement also provided for the employee's release from work for classes, individual assignments, group projects and time devoted to preparing for and taking examinations. The parties entered into a written agreement one year after the employee's training program began.

The case that was brought to our attention was presented to us as being uncommon. It goes beyond the usual standards because the employee was released from work to study and the tuition fees were paid for the employee in advance rather than upon presentation of proof of completion of the training. Note that no written agreement is required under city management frameworks and guidelines before an employee begins training, and there is no standard agreement for this type of situation. All of this raised questions for us, and led us to believe that improvements need to be made in current management frameworks for cases involving special conditions that go beyond the parameters in the conditions and benefits for managers or the collective agreements of unionized employees, as the case may be. In our opinion, this situation poses risks for both the city and the employee.

In our opinion, a written agreement is better for protecting the interests of both the city and the employee:

- The agreement should provide specific reimbursement mechanisms for cases where employees cease to work for the city or resign from positions for which they were given training or fail their training courses. If these mechanisms are not covered by a

verbal agreement, it might be very difficult for the city to obtain reimbursement from the employee if any of the above situations should arise.

- A written agreement would prevent any misunderstandings that may arise between managers and their employees during the training as a result of different interpretations of the oral agreement. In our opinion, the written agreement must clearly define the expectations and commitments of both the employee and the manager.
- The agreement should provide accountability mechanisms allowing managers to monitor the time their employees devote to professional duties and training duties more closely.
- A written agreement prevents potential conflicts in the event of a change of managers during the training period.

In our opinion, the use of a standard agreement avoids the danger of:

- perception of unfairness among employees
- creation of precedents that could result in an uncontrolled domino effect over training, for both unionized employees and managers

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

**Based on the risks posed by the lack of a written agreement between the parties and the absence of a standard agreement for cases involving special conditions, we recommend that the Service du capital humain:**

- **require the employer and the employee to sign a written agreement before the employee undertakes an eligible training program involving special conditions**
- **assess the appropriateness of producing and adopting a standard agreement, and in the affirmative:**
  - **produce a standard agreement, in line with city orientations, that provides guidance to the Service du capital humain and define all benefits it may grant to employees**
  - **issue a notice or authorize exceptions that depart from the standard agreement as a result of special circumstances**

- obtain the necessary authorizations for this standard agreement for both content (the Service du capital humain and the Direction générale) and form (Service des affaires juridiques et de l'évaluation foncière)
- issue a directive or guideline to all business units to direct their efforts.

For the same reasons, we recommend that the business unit concerned:

- comply with the terms and conditions of the city's Tuition Fees Reimbursement Program
- ensure to always sign a written agreement between the parties before an employee undertakes an eligible training program involving special conditions
- establish appropriate mechanisms to ensure that the employee complies with the agreement
- obtain a notice or authorization from the Service du capital humain, if it produces a standard agreement, for all cases involving a derogation from this agreement
- ensure that the hours the employee devotes to studies is entered in the Kronos time management system according to the directives issued

### 3.1.C. Action Plan of the Relevant Business Unit

- **SERVICE DU CAPITAL HUMAIN**

*[TRANSLATION] "The recommendation of requiring a written agreement applicable to the abovementioned special circumstances will be implemented by using a form or other appropriate document that will be created for that purpose. (Planned completion: June 2012)"*

*The Service du capital humain will assess the appropriateness of developing a standard agreement and, if applicable, obtain the necessary authorizations from the departments concerned regarding its content and format. (Planned completion: June 2012)*

*The Service du capital humain will confirm its role (notification, authorization or other) with respect to the control and monitoring of agreements involving special*

conditions under the Tuition Fees Reimbursement Program. **(Planned completion: June 2012)**

As recommended, a directive or guideline regarding all these points will be issued to the business units.” **(Planned completion: September 2012)**

- **RELEVANT BUSINESS UNIT**

[TRANSLATION] “We confirm our commitment to comply with the terms and conditions of the Program. **(Planned completion: April 2012)**

In the event that a new tuition fees agreement is put in place, we will make sure that a formal agreement is reached. **(Planned completion: April 2012)**

Management will adopt administrative measures to ensure compliance with the agreement and the Program. **(Planned completion: April 2012)**

If a new case should arise, we will comply with the standard agreement; otherwise we will consult the Service du capital humain regarding any special terms and conditions. **(Planned completion: June 2012)**

We made sure that training periods were properly entered in Kronos.” **(Planned completion: January 2012)**

# V.9. Purchase Agreement Renewals



**Vérificateur général**  
de la Ville de Montréal



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## LIST OF ACRONYMS

AIT	Agreement on Internal Trade	OQTCA	Ontario-Québec Trade and Cooperation Agreement
AQNB	Agreement on the Opening of Public Procurement for Québec and New Brunswick on Internal Trade	SCARM	Service de la concertation des arrondissements et des ressources matérielles
CTA	<i>Cities and Towns Act</i>	SEAO	electronic tendering system
MAMROT	ministère des Affaires municipales, des Régions et de l'Occupation du territoire		

## V.9. PURCHASE AGREEMENT RENEWALS

### 1. INTRODUCTION

To achieve economies of scale by pooling needs and consolidating purchases for boroughs and central departments, the Direction de l'approvisionnement, under the Ville de Montréal (the city) Service de la concertation des arrondissements et des ressources matérielles (SCARM), negotiates and manages a portfolio of 400 purchase agreements on behalf of all city business units.

These purchase agreements, contracted with suppliers following calls for tenders, involve products or services (general or professional) that may be required on an ongoing basis by several or all of the city's business units. These purchase agreements contain provisions and conditions (e.g., prearranged prices, delivery times) that apply to products or services to be ordered and generally have a term of three to five years.

The Direction de l'approvisionnement has responsibilities in all purchase agreements in effect, such as making all information on each agreement accessible via a search engine on the city's intranet, and ensuring that the information is up to date. In addition, the Direction de l'approvisionnement must ensure that the selected bidders comply with the agreements, especially where they concern invoiced prices, suitability and quality of the products provided if a product is withdrawn or modified, and set in motion the renewal process for purchase agreements in a timely manner as they expire.

### 2. AUDIT SCOPE

The purpose of the audit was to ensure that the contracting process for renewing purchase agreements for the supply of goods and services, including professional services:

- was conducted in compliance with current contracting rules and procedures
- was designed to ensure the healthy competition of all potential suppliers

and that the prices subsequently billed to city business units matched those in the agreements.

Our audit focused more particularly on purchase agreements of over \$500,000 that were in force in 2011 and for which at least three consecutive contracts were granted to the same supplier following a public call for tenders. Since these purchase agreements generally have a term of three to five years, our audit focused on agreements for which calls for tenders were issued in 2011 or earlier, during the years 2007 to 2010.

Our audit was concentrated in the Direction de l'approvisionnement. However, to substantiate the more operational aspects of preparing the tender documents of some purchase agreements or the verification of prices billed, the following business units were also approached:

- Service des affaires juridiques et de l'évaluation foncière: Section du greffe, Division du greffe de la cour municipale, under the Direction des services judiciaires
- Service du capital humain: Direction de la santé, du mieux-être, des communications et de l'administration
- SCARM: Division de la gestion du parc de véhicules of the Direction du matériel roulant et des ateliers
- Verdun borough: Division des ressources financières under the Direction d'arrondissement and the Division des immeubles, du matériel roulant et de l'approvisionnement under the Direction des travaux publics
- Outremont borough: Division des ressources financières et matérielles under the Direction des services administratifs, du greffe et des relations avec les citoyens
- Le Sud-Ouest borough: Division des ressources financières, matérielles et immobilières under the Direction des services administratifs

### **3. FINDINGS, RECOMMENDATIONS AND ACTION PLANS**

To back the conclusions we reached in this audit, we created a sample of purchase agreements from a list of about 400 purchase agreements that were in force in 2011 under the supervision of the Direction de l'approvisionnement and subjected them to more in-depth review. During our initial screening, we first identified 189 purchase

agreements out of the 400 that met our selection criteria, which specified that the contract underlying the purchase agreement concluded must be over \$500,000.

Out of these 189 purchase agreements, we then looked for those for which the underlying contract was the third (or more) consecutive one granted to the same supplier. This second screening enabled us to identify 16 purchase agreements that involved either the purchase of goods (e.g., vehicle parts, de-icing salt) or professional service requisitions (e.g., interpretation and translation services, the services of various professionals required under the employee assistance program). It should be noted from the outset that these 16 renewed purchase agreements actually arose from 12 public calls for tenders because, in some cases, the call for tenders allowed for the possibility of signing purchase agreements with more than one supplier. Thus, according to our selection criteria (e.g., three or more contracts), 1 of the 12 tender files included four purchase agreements concluded with four different suppliers, while another of the 12 calls for tenders allowed for the possibility of concluding two purchase agreements with different suppliers. Our sample therefore consists of 16 purchase agreements, each with a value of over \$500,000 and for which the supplier was awarded a renewed contract at least three consecutive times after a public call for tenders was issued (see Appendix 4.1). Since a purchase agreement generally has a term of three to five years, we noted that some of these suppliers have been the city's incumbent suppliers for close to 10 consecutive years.

It was therefore to ensure that the process of renewing purchase agreements was in compliance with principles of healthy competition, fairness and transparency that the 16 purchase agreements selected were reviewed.

### **3.1. AWARDING OF CONTRACTS FOR PURCHASE AGREEMENT RENEWALS**

Section 573 of the *Cities and Towns Act* (CTA) sets forth general rules for municipal bodies to award contracts. According to these rules, any contract for the supply of goods and services involving an expenditure of over \$100,000 may be awarded only after a public call for tenders advertised in a newspaper circulated throughout the municipality. Furthermore, the call for tenders must also be published in the electronic

tendering system (SEAO) approved by the Québec government. The minimum time granted bidders to submit their bids must not be less than 15 days. Furthermore, the bids must be opened publicly in the presence of at least two witnesses on the date and at the time and place specified in the tender notice.

Added to these general rules is the requirement to use the two-step system of bid weighting and evaluating for all professional service contracts of \$25,000 or more for which a municipal body must issue a public call for tenders or an invitation to tenders. The first step consists in evaluating the quality of the service offer according to pre-established criteria to eliminate, if applicable, tenders that did not receive a pass grade (at least 70%). The prices of the bids are not considered until the second step. A selection committee must also be formed to evaluate the tenders.

Since the contracts underlying the renewed purchase agreements in our sample were awarded consecutively three or more times to the same suppliers, we wanted to ensure that the main steps in the contract awarding process had been carried out in compliance with the applicable acts and by-laws and in such a way as not to prejudice the competitiveness of contending bidders.

We reviewed the contract awarding process of the 16 purchase agreements selected for compliance with the following:

- Choice of contract awarding method
- Creation of tender documents
- Use, where applicable, of a system of bid weighting and evaluating and prior approval of evaluation criteria by the authority in charge
- Approval of tender documents
- Publication of tender notices and compliance with the deadline for receiving tenders
- Tender opening procedure
- Compliance with the conditions for forming selection committees and individual evaluation of bids by each committee member

### 3.1.1. SELECTION OF CONTRACT AWARDING METHOD

#### 3.1.1.A. Background and Findings

As a result of our review of tender files supporting renewal of the 16 purchase agreements selected, we observed that all contracts that involve an expenditure of over \$100,000 were awarded after public calls for tenders were issued in compliance with the rules of section 573 of the CTA.

Although no irregularities were found in the contract awarding method selected, our review revealed nonetheless that some of the reference tools, which the Direction de l'approvisionnement makes accessible to all the city's business units through its intranet, were not up to date.

In fact, in consulting the Direction de l'approvisionnement intranet we found that a version of a table summarizing the contract-awarding rules, dated January 12, 2004, had been posted on it. This table, which sets out the contract-awarding rules applicable to the city, corresponds to the table prepared and updated by the Service des affaires juridiques et de l'évaluation foncière. However, the most recent version of this table at the time of our audit, which was posted in the legal database of the decision-making record management system (GDD), was dated January 11, 2011. This latest version takes into account legislative amendments that were made since 2004, especially as they pertain to exceptions to the application of the section 573 general rule (e.g., exceptions concerning contracts granted to non-profit organizations were amended).<sup>1</sup>

But reading the guide entitled *Guide de référence en matière d'octroi et de gestion de contrats de services professionnels*, accessible on the Direction de l'approvisionnement intranet, showed that some of the elements in the checklist for awarding professional services contracts are out of date. In fact, even though this guide was last updated on March 16, 2011, we noticed that the exceptions to the contract awarding method more closely resembled those that were in force in 2004, whereas the Act has been amended since then and the table summarizing the contract-awarding rules prepared by the

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<sup>1</sup> *An Act to amend various legislative provisions concerning municipal affairs*, LQ, 2009, chapter 26 (section 23).

Service des affaires juridiques et de l'évaluation foncière included those amendments in an update made on January 11, 2011, or before March 16, 2011. The exception that was granted for a contract with the designer of plans and specifications<sup>2</sup> was amended, for example.

To avoid any potential errors or confusion, we consider it important that all tools that the Direction de l'approvisionnement makes available to facilitate the preparation of tender documents be updated on an ongoing basis.

#### **3.1.1.B. Recommendations**

**We recommend that the Direction de l'approvisionnement take the necessary steps to ensure that reference tools used for awarding contracts that are distributed to all city business units and are accessible via the city's intranet be updated continually to avoid any potential confusion or errors on the part of business units that might use them as a model.**

#### **3.1.1.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] "A steering committee was set up in 2010 to manage and organize the flow of information published on the intranet. This objective of this committee is to make the intranet a reliable, up-to-date management and information-sharing tool.*

*The task of restructuring the 'procurement' function, along with the many challenges that this entailed, meant that throughout 2011 the committee's time was spent on other issues.*

*The first step to update the intranet will be to revive this committee's activities, taking into account the Direction de l'approvisionnement's current issues. Once the committee is back in action, its members will be able to discuss what action to take, what people will be in charge of each action and create a project calendar. **(Planned completion: April 2012)***

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<sup>2</sup> An Act to amend the Act respecting the Régie du logement and various Acts concerning municipal affairs, LQ, 2010, chapter 42 (section 4).

*All the documents have been revised and classified according to whether they need to be removed, updated or maintained, and an action plan for the work and follow-up will be proposed.” (Planned completion: September 2012)*

### 3.1.2. CREATION OF TENDER DOCUMENTS

#### 3.1.2.1. BID FORM

##### 3.1.2.1.A. Background and Findings

Of necessity, the contract awarding process involves the preparation of a tender file, which includes several documents, including the bid form, technical specifications, specific and general provisions, instructions to bidders, additional information and *addenda*, if applicable. Particular attention must be given when these documents are prepared so that the process will allow the city to benefit from the lowest prices possible while ensuring that all bidders are treated fairly and transparently by providing them all with the same information on a timely basis.

In this step, since the 16 purchase agreements in our sample were granted at least three consecutive times to the same supplier, the criterion that guided our review of the files was obtaining reasonable assurance that the 12 tender document files that formed the basis of these 16 purchase agreements facilitated healthy competition among bidders. During our review, tender documents for two agreements were of particular concern to us because they pointed to areas of greater weakness in the fairness and transparency of the contract awarding process.

One of these purchase agreements, which is for tender 07-10559, concerns a call for tenders for legal interpretation and translation services for the Montréal Municipal Court. The successful bidder has also been the city’s incumbent supplier for this type of service agreement since 2003. During these years, this supplier obtained three consecutive contracts with terms varying from one and a half to five years. The last contract that it obtained, under the agreement in force, has a five-year term. However, according to the information compiled, this same supplier also obtained at least three

consecutive contracts during the 1990s for the same interpretation services at the Montréal Municipal Court.

At the time the contract was awarded (2007) the management of interpretation needs was under the Direction des affaires pénales et criminelles<sup>3</sup> of the Service des affaires corporatives. The Municipal Court makes use of interpretation services mainly for legal proceedings. Under the Québec and Canadian Charters of Rights, the Municipal Court must offer such interpretation services.

During this call for tenders, two bidders submitted bids. According to the instructions given to bidders, the contract was to be granted to the firm that submitted the bid that obtained the highest final score.

We note that the bid form provides an estimate of the number of days and sessions per year for interpretation services, as well as an estimate of the number of words per year for legal translation services.

The estimated number of days is for the presence of English- and French-language interpreters in the course of the year based on the judicial calendar, current and summer season. The bidder must specify on the form both a unit price per day and an overall price. These two sections of the bid form are based on the judicial year in which the Municipal Court is open (about 250 days). There are two sections on the bid form for the sessions. The first section concerns the presence of an interpreter (all language combinations), who is asked to appear with more than 24 hours' notice, a situation described as a "regular service request." The second section concerns the presence of an interpreter with less than 24 hours' notice, a situation described as an "urgent request." According to the technical specifications and those interviewed at the Direction des services judiciaires, a session is roughly the equivalent of half a day. The schedule is therefore established on the basis of two sessions per day. Finally, the last section of the form provides an estimate of the number of words per year for translating documents.

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<sup>3</sup> Management of interpretation and translation needs is now under the purview of the Service des affaires juridiques et de l'évaluation foncière.

In the light of information from those interviewed and analyses of documents we received, we were unable to determine the exact source of the data used to prepare the bid form, either for the number of sessions at which an interpreter must be present (regular and urgent requests) or with respect to the number of words per year for translation. In fact, while the people we met with at the Direction des services judiciaires presented us with tables illustrating data on summonses requested for the years 2006 to 2011 (statistics on notices issued to translators), this information does not in any way make it possible to substantiate the data used to prepare the bid form. According to those we interviewed, the data on the form are based on an estimate, even a calculation. However, no supporting document could be found for the data used to prepare the bid form. The people we met with claim that they received no recommendation from the Direction de l'approvisionnement, whose representatives are nevertheless involved with the preparation of the bid form. A Direction de l'approvisionnement manager we met with mentioned that when its employees prepare a bid form, they tend to obtain the most reliable data possible, consulting as much as they can with the people responsible for the file in the requesting business units.

Under the circumstances, we were not able to obtain assurance that the data entered in the bid form had been established on the basis of actual activities compiled on a historical basis. Yet, in our view, the data used to prepare bid forms should either be the most representative of the actual activities carried out previously for those types of services, or they should take into account changes that will have to be made based on foreseeable needs. In our opinion, it is the city's responsibility as a work provider to ensure that tender documents include all the information that bidders will find useful and necessary in order to be able to properly assess the scope of the work to be done so that they can then determine and submit a fair price. But such a situation casts an element of doubt when the current bidder, which also won the contract at previous purchase agreements renewals, may have had a certain advantage over his competitor (one other bidder). In fact, based on his knowledge of the actual historical needs of the Municipal Court, this bidder was able to compare the data on the bid form with his own statistics (e.g., the number of current sessions and the number of urgent sessions) and adjust his quotation accordingly. For this reason, we believe that special attention

should be devoted to the preparation of the bid form in the event that this purchase agreement is renewed.

#### **3.1.2.1.B. Recommendations**

To ensure a more competitive environment for the purchase agreement renewal of legal interpretation and translation services for Montréal Municipal Court, we recommend that the Direction de l'approvisionnement, with the Direction des services judiciaires of the Service des affaires juridiques et de l'évaluation foncière, give special attention to the information entered in the bid form to ensure that the data used are based on actual activities compiled on a historical basis or that they reflect foreseeable needs.

#### **3.1.2.1.C. Action Plan of the Relevant Business Unit**

- **DIRECTION DE L'APPROVISIONNEMENT**

*[TRANSLATION] "A joint committee (Direction de l'approvisionnement and Service des affaires juridiques et de l'évaluation foncière) was set up to compile data on and analyze historical interpretation and translation needs." (Planned completion: September 2012)*

- **SERVICE DES AFFAIRES JURIDIQUES ET DE L'ÉVALUATION FONCIÈRE**

*[TRANSLATION] "The current agreement providing the professional services of legal interpreters and translators that the city's municipal court requires for its activities will expire on December 31, 2012."*

*Therefore, since the municipal court does not have internal expertise in this area, it will be necessary to issue a new public call for tenders in early September 2012 to contract out these professional services again.*

*The Direction des services judiciaires will take into account and follow up on the Auditor General's recommendation when it prepares the specifications and documents associated with this call for tenders." (Planned completion: September 2012, at the time of the next public call for tenders)*

### 3.1.2.2. *ADDENDA*

#### 3.1.2.2.A. Background and Findings

When an important change occurs that affects the information or requirements in the tender documents, an *addendum* must be produced before the tenders are opened. These amendments then become an integral part of the tender documents and must be sent to all bidders who have received the documents so that they can take them into account when preparing their bids.

Our review of the same call for tenders (07-10559) for the requisition of legal interpretation and translation services revealed that during the contract awarding process, the firm that ultimately obtained the contract had sent a letter to the Direction de l'approvisionnement. In its letter, this firm requested clarifications about the interpretation of two provisions of the technical specifications. A second letter that this firm sent and enclosed with the file showed that it obtained the requested clarifications verbally by speaking to a representative of the Direction de l'approvisionnement. Yet even though this firm sent written correspondence on two occasions and received the clarifications it needed in a response from Direction de l'approvisionnement staff, we noted that no *addendum* containing the content of these questions and the responses to them was prepared and sent to all firms that had taken possession of the tender documents (three parties, in all). We believe that the type of information communicated to the successful bidder may have influenced the price it submitted.

In our opinion, such a situation is prejudicial to the fairness and transparency that any contract awarding process must demonstrate and violates the principles stated in the city's procurement policy. In fact, it is possible that verbal information on interpreting special provisions that was conveyed to only one of the parties that obtained the tender documents gave it an advantage over its competitors.

While the derogation noted in tender 07-10559 (not sending an *addendum*) is clearly not part of the common practices of the Direction de l'approvisionnement, we nonetheless believe that it may be appropriate to reiterate to all staff members concerned the importance of producing and publishing an *addendum* when changes are made to the

information or requirements in a call for tenders, to ensure that the potential bidders are treated equally.

#### **3.1.2.2.B. Recommendations**

We recommend that the Direction de l'approvisionnement, in accordance with the *Guide de référence en matière d'octroi et de gestion de contrats de services professionnels*, reiterate to all staff members concerned the importance of producing and publishing an *addendum* when major changes are made to the information or requirements in a call for tenders, in order to ensure that the potential bidders are treated equally.

#### **3.1.2.2.C. Action Plan of the Relevant Business Unit**

[TRANSLATION] "We reviewed the number of amendments made during the tendering process as well as the average cost, and a guideline will be sent to our staff." (**Planned completion: April 2012**)

### **3.1.2.3. INSUFFICIENT INFORMATION COMMUNICATED TO BIDDERS**

#### **3.1.2.3.A. Background and Findings**

As mentioned above, our attention was also drawn to a second purchase agreement, which was also the subject of at least three consecutive contracts. This is tender 09-11085, for a purchase agreement for professional services to support the boroughs and central departments in providing an employee assistance program.

In reviewing the technical specifications, we noted that it mentions that the bidder must enclose with its bid statistical reports and table models for each central department, each borough and each accreditation or association, with a frequency described in these specifications. This section corresponds effectively to one of the criteria on which the bidders will be evaluated. The weighting for this criterion may not exceed 30%.

In Appendix 1, attached to the technical specifications, the bidders (five in this case) have access to the 2008 activity report entitled *Programme d'aide aux employés de la Ville de Montréal*, which was prepared by the city's Service du capital humain. This

report includes various statistics and other information that should enable bidders to prepare the statistical reports and table models required in the specifications. But in reviewing the information in this 2008 activity report more closely, we observed that it provides no statistics on any of the city's boroughs or central departments. This report contains only very general and summarized information on all city business units (e.g., the percentage of consulting handled by each workplace: 41.9% for the boroughs and 58.1% for the central departments). No specific statistics are given for individual boroughs or central departments. In fact, in our review of the tender documents, we noted that, apart from the bidder that won the contract, some of the bidders had difficulty satisfying the requirements of this criterion.

In our opinion, such a situation makes it difficult, if not impossible, for some bidders to produce the statistical reports requested in the technical specifications for their bids, as the requirements are very specific to the city's structure (boroughs and central departments) and no specific historical data on these different business units is provided. In short, only a bidder that has held the city contract for a few years can perfectly meet the technical specification requirements. In our opinion, the technical specifications are so specific to the city's organizational structure that it would result in calls for tenders being oriented toward a particular bidder, the one that is already the incumbent supplier and is familiar with the historical needs of the city's different business units. In short, this situation is prejudicial to the principle of healthy competition, especially in view of section 7.2 of the city's new procurement policy, adopted in October 2011, which states that: *[TRANSLATION] "Documents included in a call for tenders must be standardized and written with clarity, rigour and precision, so as to ensure transparency, fairness and the most competitive environment possible."*

#### **3.1.2.3.B. Recommendations**

**In the interest of fostering a contract awarding process that is fair to all bidders and is based on the principles of healthy competition, we recommend that the Direction de l'approvisionnement, with the Service du capital humain's Direction de la santé, du mieux-être, des communications et de l'administration ensure that tender documents for renewal of the purchase agreement for the employee**

assistance program are designed in such a way that potential bidders have all the information they need to prepare their bids.

#### 3.1.2.3.C. Action Plan of the Relevant Business Unit

- **DIRECTION DE L'APPROVISIONNEMENT**

[TRANSLATION] "We have mandated our business practices department to review the templates and documents used in calls for tenders in this area and propose the necessary changes." (Planned completion: September 2012)

- **SERVICE DU CAPITAL HUMAIN**

[TRANSLATION] "In order to make the contract awarding process fair for all bidders as well as comply with principles of healthy competition, very careful attention will be given to the design of technical specifications for calls for tenders, so that all the information bidders are asked to provide in the form of reports, tables and other documents is clearly defined in advance and available to everyone. Accordingly, in the interest of complying with principles of clarity, rigour and accuracy, and in order to ensure transparency, fairness and the most competitive environment possible given the city's particular structure, each of the boroughs and central departments will be specified by name." (Planned completion: immediately [April 2012], because we are now in the process of writing technical specifications to renew the employee assistance program contract, which should come into force on January 1, 2013)

### 3.1.3. USING A SYSTEM OF BID WEIGHTING AND EVALUATING AND PRIOR APPROVAL OF EVALUATION CRITERIA

#### 3.1.3.A. Background and Findings

Under section 573.1.0.1.1 of the CTA, the council must use a two-step system of bid weighting and evaluating for professional services calls for tenders for contracts involving an expenditure of more than \$25,000.

To evaluate the tenders received, a selection committee made up of at least three members who are not council members must be formed. The contract is awarded to the bidder that receives the best final score. As mentioned above, the quality of a service

offer must first be evaluated according to pre-established criteria, then a score is assigned to each service offer (evaluation grid), to eliminate any bids that do not obtain a pass grade (at least 70%). This evaluation grid must be pre-approved by the appropriate authority. Only in the second step are the prices of bids considered.

For the city, it is the executive committee that has jurisdiction to approve the bid evaluation grid. Generally, this power is exercised in the context of a decision-making record, mainly when a call for tenders is authorized.

In our sample (see Appendix 4.1), 4 of the 12 tender files reviewed for purchase agreement renewals involved professional service requisitions. Our audit revealed that the contracts associated with these agreements were all awarded in compliance with section 573 of the CTA. In particular, we noted that in every case the evaluation grid had been pre-approved by the city's executive committee.

### 3.1.4. APPROVAL OF TENDER DOCUMENTS

#### 3.1.4.A. Background and Findings

As discussed above, a call for tenders is composed of numerous documents (e.g., technical specifications, specific provisions, bid form, instructions to bidders, additional information, statements of evaluation criteria and their definitions, in the case of professional services and an *addendum*, if applicable).

That is why it is important that the different parties concerned with the file closely monitor a call for tenders before it is issued, to ensure that document contents are accurate and that they contain nothing that is confusing or is likely to prejudice the competitive tendering of bidders. The Direction de l'approvisionnement therefore has an important role to play for the files that it handles in guaranteeing that the contract awarding process is compliant with the applicable acts and by-laws and that it treats all potential suppliers fairly and transparently.

According to information obtained from the Direction de l'approvisionnement, a procurement officer and occasionally an advisor, depending on the complexity of the

case, are appointed to collect some documents from the business unit project managers concerned (e.g., technical specifications) when necessary, and prepare the other documents under the responsibility of the Direction de l'approvisionnement (e.g., the bid form, general provisions). Once the file is considered complete, the procurement officer and the advisor, if applicable, submit the file to a Direction de l'approvisionnement manager, usually a section manager, who can then approve the tender documents and publication of the call for tenders. For this, the Direction de l'approvisionnement advocates use of a form entitled Project Report that, in its most recent version, details the main information on the contract to be awarded (e.g., purpose of the contract, contract awarding method required, tender number, name of the requester, estimated cost of the contract). This form provides in particular fields to be approved (signed) by the manager in charge: [TRANSLATION] "Call for tenders authorized by" and [TRANSLATION] "Publication authorized by," along with the date of approval and signature of the procurement officer, and, if applicable, the advisor assigned to the file. Such an approval form must be included in all tender files created.

As part of our audit, we wanted to confirm that the tender documents had effectively been approved by a manager in charge before they were distributed. As a result, our review of the 12 tender files supporting the renewal of 16 purchase agreements selected revealed the following facts:

- For 2 of the 12 public tender files reviewed, we found that the Project Report form enclosed with the file did not demonstrate that the tender documents were approved by a manager in charge. In our opinion, this approval is essential for the Direction de l'approvisionnement to have reasonable assurance that the market was approached in compliance with the applicable acts and by-laws and with the principles of fairness and transparency adopted by the city.
- Some fields in the form are not always completed. This is notably the case with information such as the signature of the agent or advisor responsible for the file, date of the approval and signature of the person making the entry. In short, we note that the forms are not always completed uniformly depending on staff assigned to the file.
- While the Project Report form has a field for declaring that the tender file is compliant, it does not allow the main aspects of the contract awarding process or

tender documents that were audited and approved by various parties involved with the file to be specified.

#### **3.1.4.B. Recommendations**

To obtain reasonable assurance that markets were approached in compliance with the applicable acts and by-laws and with the principles of fairness and transparency adopted by the city, we recommend that the Direction de l'approvisionnement:

- A) make the necessary arrangements to reiterate to its employees the importance of checking and approving all tender documents before a call for tenders is issued, ensuring in particular that the Project Report form is signed and dated and that all the fields in this form are completed, so as to ensure that practices are standardized;
- B) improve the presentation of the Project Report form so that it reflects the fact that approval was obtained for the main aspects of the contract awarding process or the tender documents that were checked by employees and managers assigned to the file.

#### **3.1.4.C. Action Plan of the Relevant Business Unit**

- A) [TRANSLATION] "A memo will be sent to all employees." (**Planned completion: April 2012**)
- B) [TRANSLATION] "A reminder will be sent out regarding the Project Report form, and the files will be evaluated to ensure that they comply with standards.

*Following this evaluation, the Project Report will be evaluated once again.*  
**(Planned completion: September 2012)**

### **3.1.5. PUBLICATION OF TENDER NOTICES AND RESPECT OF TIMES ALLOWED FOR RECEIVING TENDERS**

#### **3.1.5.A. Background and Findings**

For contracts involving an expenditure of \$100,000 or more, the general rule in section 573 of the CTA is that a public call for tenders must be published in a

newspaper circulated throughout the municipality as well as in the government-approved SEAO. Furthermore, for a public call for tenders, the time allowed for receiving tenders must not be less than 15 days.

In reviewing the files created for the 12 calls for tenders for the 16 purchase agreements selected we noted that in every case, the notices were published in a newspaper and in the SEAO, in accordance with the Act. The times allowed for receiving tenders were also compliant with the applicable legal provisions.

However, in the 1990s and, more recently, in 2008 and in 2009, Québec entered into market liberalization agreements with the federal government and the provinces and territories of Canada. These agreements, which are aimed at opening markets to competition, apply to public calls for tenders issued by municipalities and municipal bodies for certain types of contracts when expenditures are above certain thresholds and must be entered in the SEAO when contracts are published. The main potentially applicable market liberalization agreements that we reviewed in relation to contracts underlying the renewal of agreements in our sample are:

- AIT: Agreement on Internal Trade, which involves all provinces and territories of Canada, applies to municipal bodies in Québec since July 1, 1999
- OQTCA: Ontario-Québec Trade and Cooperation Agreement, which took effect on October 1, 2009
- AQNB: Agreement on the Opening of Public Procurement for Québec and New Brunswick on Internal Trade, which became effective and applicable to municipalities on December 2, 2008, except for construction contracts of \$100,000 to \$250,000, which took effect for municipalities on June 30, 2009

Based on the files reviewed, we noted that the Direction de l'approvisionnement entered all applicable agreements except the AQNB in the SEAO. In fact, of the 12 tender files reviewed, the AQNB was missing for 9 of them, while the agreement was not in force when the calls for tenders for the other 3 were published. According to the information obtained from the managers we met with, it has always been current practice at the Direction de l'approvisionnement to enter the OQTCA and the AIT in the SEAO when a public call for tenders is issued. We were informed that this has been the practice since

the SEAO was put into operation on June 1, 2004 and that this was the case even before that, when the electronic tendering system known as “MERX” had to be used. It appears that the lack of entries in the SEAO for the AQNB is an omission.

In December 2011, while we were conducting our audit, the Direction de l’approvisionnement took steps to have the Service des affaires juridiques et de l’évaluation foncière approve the practice that was adopted for entering market liberalization agreements in the SEAO. In response to questions sent by email to a lawyer in this department, the Direction de l’approvisionnement was informed that no market liberalization agreement was applicable to municipalities and that, under the circumstances, the words “no agreement applicable” should be entered in the SEAO.

We were surprised by the information communicated, especially since the Ministère des Affaires municipales, des Régions et de l’Occupation du territoire (MAMROT) advances a completely different interpretation of the application of these market liberalization agreements.

In fact, on the MAMROT website, a table entitled *Régime général concernant l’octroi des contrats municipaux*, which was revised on November 8, 2011, clearly states that the abovementioned market liberalization agreements apply to municipalities and municipal bodies. A similar table can also be accessed on the Conseil du trésor website.

At the same time, the MAMROT also published on its website reports illustrating the results of audits conducted on the process that various municipalities and municipal bodies follow for awarding contracts. (Click the tab “Gestion contractuelle et éthique,” then the section “Rapports de vérification et plaintes,” followed by the subsection “Rapports de vérification.”) But in recent reports on Ville de Saint-Constant (February 2012), Ville de Saint-Jérôme (June 2011), Ville de Sainte-Anne-des-Plaines (May 2011), to name just a few, the MAMROT, citing section 573 of the CTA, states that when these municipalities issue calls for tenders, appropriate entries must be made in the SEAO for all market liberalization agreements that apply to the specific contracts. Furthermore, in all these reports, the MAMROT talks about the “application” of market

liberalization agreements to municipal affairs. The February 2012 report on Ville de Saint-Constant even refers to the Direction des affaires juridiques under MAMROT to support its position concerning the need to place checkmarks next to the appropriate agreements when entering a call for tenders in the SEAO.

The conclusion is inescapable that the information the Direction de l'approvisionnement obtained recently from the Service des affaires juridiques et de l'évaluation foncière is very confusing and leaves considerable doubt in view of MAMROT's conflicting interpretations of the applicability of market liberalization agreements to municipalities.

In our opinion, there is good reason to seek additional clarification and confirmation on the question of whether market liberalization agreements apply to the city, so as to dispel any doubts concerning the procedure to be followed when calls for tenders are published in the SEAO and so that ultimately, the process ensures that all potential suppliers are included in the competitive bid call.

#### **3.1.5.B. Recommendations**

**To dispel any remaining doubts concerning the procedure to be followed for making entries in the electronic tendering system and to promote competition among all potential suppliers, we recommend that the Direction de l'approvisionnement take whatever action it considers appropriate to obtain further clarification and confirmation on the question of whether market liberalization agreements apply to the city.**

#### **3.1.5.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] "In this recommendation we are being asked to oppose or dispute a legal opinion advanced by the city's legal services. However, while we have great respect for the recommendations that are made, we do not think it is our responsibility to seek out an opinion that runs counter to the position of our legal service.*

*Our action will therefore be to communicate with the senior manager of the Service des affaires juridiques et de l'évaluation foncière regarding this recommendation." (Planned completion: April 2012)*

### 3.1.6. TENDER OPENING PROCEDURE

#### 3.1.6.A. Background and Findings

Under section 573, paragraph 4 of the CTA, all bids received must be opened publicly in the presence of at least two witnesses.

During our audit, we found that for each of the 12 tender files reviewed, a record of the opening of tenders was written and signed by Direction du greffe employees. These records confirm that two witnesses were present when the tenders are opened.

### 3.1.7. FORMATION OF SELECTION COMMITTEES AND INDIVIDUAL EVALUATION OF TENDERS

#### 3.1.7.A. Background and Findings

For the purpose of awarding contracts for professional services, section 573.1.0.1.1 of the CTA stipulates in particular that the council must set up a selection committee composed of at least three members who are not council members, who must evaluate each tender individually without knowing its price. As mentioned in section 3.1.3, this evaluation must be carried out using an evaluation system (evaluation criteria) and weighting system pre-authorized by the city's executive committee. Furthermore, no bids must be compared with each other during the individual evaluation of bids. According to information obtained from the manager interviewed at the Direction de l'approvisionnement, the procurement officer responsible for a tender file explains to selection committee members how to evaluate bids. Subsequently, as provided for by the Politique de gestion contractuelle de la Ville (section 1.2), all committee members must sign a formal declaration attesting to their impartiality and to the absence of conflict of interest or appearance of conflict of interest prior to their deliberations.

To provide better support and guidance for the procurement process for professional services, the Direction de l'approvisionnement has also produced reference guides, including:

- *Guide de référence en matière d'octroi et de gestion de contrats de services professionnels*, March 2011

- *Guide de référence des systèmes de pondération et d'évaluation des comités de sélection et comités techniques*, March 2011

In addition to the rules set out in section 573.1.0.1.1 of the CTA, these guides provide other criteria for forming selection committees, depending on whether the value of the contract to be awarded is between \$25,000 and \$500,000 or over \$500,000. For contracts over \$500,000, such as those that make up our sample, the applicable criteria are as follows:

- When the contract involves fees of more than \$1 million, the committee must consist of a majority of managers, and one of these must be a senior manager.
- At least one manager must be from a department or borough other than the one directly concerned by the contract.
- There must be no reporting relationships among committee members.
- The project manager may not be part of the committee, even as an observer.

Depending on the city's internal procedure, once the proposed composition of the selection committee is determined, it must be approved by the associate city manager of SCARM.

It was in order to review compliance with all these criteria provided for in the CTA and the Direction de l'approvisionnement reference guides that we examined the four tender files in our sample that were related to professional services. We also reviewed another tender file from our selection for general services (other than professional services), because an optional weighting system (not required under the CTA) was used and a selection committee was formed. The results of our review reveal the following facts:

- CTA requirements regarding the number of members needed for forming a selection committee were complied with, as was the prohibition of council members from sitting on such a committee, as well as the criteria set out in reference guides produced by the Direction de l'approvisionnement.
- The analysis conducted by the Direction de l'approvisionnement to ensure compliance with all criteria provided for in the CTA and the reference guides has been documented since 2007.

- The current internal procedure to authorize the formation of the selection committee is ratified when the contract is awarded by the authority concerned.

Regarding the formal declaration that all selection committee members must sign to confirm their impartiality and the absence of any conflict of interest or the appearance of conflict of interest prior to analyzing tenders individually, we noted that the process was compliant for four of the five files reviewed, depending on whether the established procedure was in force when these calls for tenders were issued. Despite searches conducted by Direction de l'approvisionnement representatives, it proved impossible to demonstrate that a duly completed form was signed by the selection committee members for one of the files reviewed. While the document may very well have been accidentally misplaced, we still believe that it would be appropriate for the Direction de l'approvisionnement to introduce a management tool (e.g., a checklist) to ensure that all necessary supporting documents and declarations for the contract awarding process are obtained and entered in the file.

Because of a lack of supporting documents, our audit did not allow us to confirm that each tender had been individually evaluated. In fact, no written statement can be found in the files that would confirm that the operating rules in the CTA have been followed.

We believe that in the event of a legal dispute, comprehensive documentation of every aspect of a tender file could be used to prove both compliance with the applicable acts and by-laws and the impartiality of the bid evaluation process.

#### **3.1.7.B. Recommendations**

**To ensure that the tender files created for the professional (or general) service contract awarding process demonstrate compliance with the operating rules set forth in the *Cities and Towns Act* and the internal governance rules established by the city, we recommend that the Direction de l'approvisionnement:**

- **Acquire a management tool to ensure that all required documents and declarations, particularly the formal declaration that all selection committee members must sign, were obtained and entered in the file.**

- Ensure through a written declaration that the bids received were evaluated individually by the selection committee members, without knowing their prices, as set forth in the *Cities and Towns Act*.

### 3.1.7.C. Action Plan of the Relevant Business Unit

[TRANSLATION] “The procedure for closing files will be reviewed. (**Planned completion: June 2012**)

*The directives issued to the selection committee will be amended, and a new form will be created for a formal declaration of compliance.” (Planned completion: June 2012)*

## 3.2. USE OF AGREEMENTS AND MONITORING PRICES BILLED

To determine whether the city’s business units were making use of the purchase agreements and monitoring the prices billed by suppliers under these agreements, we selected 6 agreements (see Table 1) from our sample of 16. These six agreements were selected randomly, with care taken to ensure that they covered goods procurement contracts and professional service contracts.

**Table 1—Purchase Agreements Selected (6) out of the 16 in the Sample**

Tender number	Type of contract	
	Procurement of goods	Professional services
07-10322	Vehicle batteries and motor fleet equipment	
07-10559		Legal interpretation and translation services for the Municipal Court
09-11085		Support for providing boroughs and central departments with an employee assistance program
10-11423	Desktop computers, laptops and other standardized equipment	
11-11530	Asphalt	
11-11666	De-icing salt	

An audit of these more operational aspects was conducted with the following five business units:

- Service des affaires juridiques et de l'évaluation foncière: Section du greffe, of the Division du greffe de la cour municipale, under the Direction des services judiciaires
- SCARM: Division de la gestion du parc de véhicules of the Direction du matériel roulant et des ateliers
- Verdun borough: Division des ressources financières under the Direction d'arrondissement and the Division des immeubles, du matériel roulant et de l'approvisionnement under the Direction des travaux publics
- Outremont borough: Division des ressources financières et matérielles under the Direction des services administratifs, du greffe et des relations avec les citoyens
- Le Sud-Ouest borough: Division des ressources financières, matérielles et immobilières under the Direction des services administratifs

### 3.2.1. BUSINESS UNIT USE OF PURCHASE AGREEMENTS

#### 3.2.1.A. Background and Findings

The city encourages pooling needs to obtain the necessary goods and services. By concluding purchase agreements on behalf of all business units, the city promotes continuity and ease of supply while helping everyone concerned obtain the best prices and ultimately help achieve economies of scale. Moreover, under section 7.2 of the city's new procurement policy (adopted in October 2011): *[TRANSLATION] "All units are required to use the framework agreements for fairness towards bidders, controlling the growth of costs in the next call for tenders and the city's credibility with markets."* The Direction de l'approvisionnement is the administrative unit appointed to approach markets and conclude purchase agreements with compliant suppliers. Boroughs and central departments must avail themselves of these agreements when they purchase common goods and services that are necessary for their operations.

We wanted to enquire about the extent to which the business units covered by the six agreements selected for this portion of our audit made use of the agreements for purchases needed for current operations.

Our audit revealed that the business units used the purchase agreements that we selected for our audit, except for Verdun and Outremont boroughs, which did not use some of them. In fact, we noted that these two boroughs do not use the purchase agreement for batteries for motor fleet vehicles and equipment (call for tenders 07-10322) and that the Verdun borough does not make use of the agreement for the acquisition of desktop computers, laptops and other standard equipment (call for tenders 10-11423). These business units purchase instead from suppliers with which no collective purchase agreement was concluded. According to the information obtained from individuals contacted in these two boroughs, a lack of knowledge of the purchase agreements negotiated by the city could account for this situation.

Following our intervention, a representative of the Verdun borough informed us that he had compared an outside supplier's prices for motor fleet vehicle and equipment batteries with those in the city's purchase agreement. The comparison revealed that 78 batteries purchased in 2011 from an outside supplier cost the borough \$2,576.94 (26%) more than if batteries of the same type had been acquired under the city's existing purchase agreement. Use of the purchase agreement would therefore have generated savings.

We obtained a sample of five invoices for purchases the Outremont borough made from an outside supplier, also for motor fleet vehicle and equipment batteries. But our review of these invoices revealed that one of them was for a product similar to products appearing in the purchase agreement. A comparison of the price paid with that of the purchase agreement revealed once again that the borough could have paid 24% less. We also noted that this supplier is located about 25 kilometres from the location of the borough's activities while the supplier that was awarded the purchase agreement is located about 8 kilometres closer to the location of this borough's activities. The two suppliers have comparable opening hours.

With respect to the purchase agreement covering the acquisition of desktop computers, laptops and other standard equipment, based on the invoices we sampled in our review at the Verdun borough, we were unable to find any products acquired that were equivalent in every way to those appearing in the agreement.

### 3.2.1.B. Recommendations

In order for the city to be able to benefit from economies of scale, we recommend that the Direction de l'approvisionnement take the necessary steps to remind all business units of the existence of the purchase agreements negotiated and the requirement of using them for the purchases of goods and services in accordance with the provisions of the city's procurement policy, adopted in October 2011.

For the same reasons, we also recommend that Verdun and Outremont boroughs reiterate to their employees the importance and the requirement of using all purchase agreements negotiated by the Direction de l'approvisionnement.

### 3.2.1.C. Action Plan of the Relevant Business Unit

- **DIRECTION DE L'APPROVISIONNEMENT**

*[TRANSLATION] "We have already created a newsletter. There is also a link to these newsletters on the intranet site. A reminder will be sent to everyone to underscore the importance of reading the Info-achats newsletter." (Planned completion: May 2012)*

- **VERDUN BOROUGH**

*[TRANSLATION] "Our mechanical part and computer equipment purchasing agents were instructed to use the purchase agreements negotiated by the Direction de l'approvisionnement for products and services covered by the terms of those agreements. (Planned completion: April 2012)*

*A memo was issued to all Verdun borough employees to remind them to comply with the Montréal procurement policy that was adopted in October 2011 and to use purchase agreements negotiated by the Direction de l'approvisionnement." (Planned completion: April 2012)*

- **OUTREMONT BOROUGH**

*[TRANSLATION] "The Direction des travaux publics manager reminded the team that they must use purchase agreements. (Planned completion: March 2012)*

*This point in the auditor general's report was brought up by the borough director at the last meeting of the expanded steering committee. (Planned completion: April 2012)*

*A reminder of the procedures for using purchase agreements will be sent to all employees." (Planned completion: April 2012)*

### 3.2.2. MONITORING PRICES BILLED

#### 3.2.2.A. Background and Findings

When purchases are made under the purchase agreements, both the Direction de l'approvisionnement, as the unit responsible for managing the purchase agreements, and the business units, which use these purchase agreements to acquire goods or services, must monitor the prices billed to ensure that they correspond to the conditions for which the supplier won the contract.

To ensure that the prices subsequently billed to city business units corresponded to those in the purchase agreements, referring to the same six purchase agreements mentioned in the previous section (see Table 1), we reviewed a sample of 60 invoices distributed in the following business units:

- Service des affaires juridiques et de l'évaluation foncière: Section du greffe, of the Division du greffe de la cour municipale, under the Direction des services judiciaires (5 invoices)
- SCARM: Division de la gestion du parc de véhicules of the Direction du matériel roulant et des ateliers, which handles battery purchases for maintaining vehicles of city business units when they require its services (5 invoices)
- Verdun borough: Division des ressources financières under the Direction d'arrondissement and Division des immeubles, du matériel roulant et de l'approvisionnement under the Direction des travaux publics (14 invoices)
- Outremont borough: Division des ressources financières et matérielles of the Direction des services administratifs, du greffe et des relations avec les citoyens (20 invoices)

- Le Sud-Ouest borough: Division des ressources financières, matérielles et immobilières of the Direction des services administratifs (16 invoices)

As a consequence of our review, we found that the invoiced prices corresponded to the prices set in the purchase agreements. There were therefore no irregularities to report.

### 3.3. UPDATING PURCHASE AGREEMENT RESEARCH AND CONSULTATION TOOLS

#### 3.3.A. Background and Findings

The Direction de l'approvisionnement places two search engines at the disposal of city business units that enable users to find and consult the various purchase agreements in force. They are accessible on the Direction de l'approvisionnement intranet. One of them, Index des produits et des services, consists of an alphabetical index of products and services that can be searched using keywords (e.g., *accumulateur pour véhicules et appareils* is found under the letter "A," *sel de déglçage* is indexed under the letter "S") to find a purchase agreement and its corresponding number. The other tool, called "Moteur de recherche des ententes d'achat," can also be used to search for an agreement and consult its content (e.g., the pricelist for products or services for which the call for tenders was issued, delivery procedure). More specifically, this search engine can be used to search for an agreement by number (e.g., 408569), product or service name (e.g., *sel de déglçage*), or supplier name (e.g., XYZ Company).

According to the information obtained from managers we met with in the Direction de l'approvisionnement, all purchase agreements entered in the alphabetical index should also be found in the search engine and vice versa. As part of our audit, we therefore tested consistency between the two existing search tools.

The tests we performed reveal that the alphabetical index includes agreements that do not exist in the search engine and vice versa. More specifically, we noted that the numbers corresponding to 35 purchase agreements appearing in the alphabetical index were nonexistent when the search engine was used. After checking with a Direction de l'approvisionnement employee, we found that the search index in question is not

necessarily up to date and that it may contain numbers that correspond to agreements that are no longer in force.

Conversely, when we used the search engine for an agreement number, we noted that 11 of the agreements that appeared could not be found in the alphabetical index. According to the explanations obtained from a manager at the Direction de l'approvisionnement, there are possible delays in the manual operation for integrating key words into the alphabetical index.

In our opinion, since close to 400 purchase agreements have been negotiated and it is therefore unlikely that a product not currently needed by the business units is not covered by one of them, this lack of harmonization between the search tools could mislead users in the city's business units who, as a result of the search tool they chose, might not find any purchase agreements negotiated for the product or service they were looking for and might seek to obtain them from another supplier. Moreover, since the city's new procurement policy (adopted in October 2011) stipulates that all the city's business units are required to use the purchase agreements, it is especially important that all search tools used to locate them be kept up to date, to avoid confusion and promote their use.

### **3.3.B. Recommendations**

**We recommend that the Direction de l'approvisionnement make the necessary arrangements so that all research and consultation tools that are used in connection with purchase agreements and are accessible via the city's intranet are kept continuously updated.**

### **3.3.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] "A steering committee was set up in 2010 to manage and organize the flow of information published in the intranet. This objective of this committee is to make the intranet a reliable, up-to-date management and information-sharing tool.*

*The task of restructuring the 'procurement' function, along with the many challenges that this entailed, meant that throughout 2011 the committee's time was spent on other issues.*

*The first step to update the intranet will be to revive this committee's activities, taking into account the Direction de l'approvisionnement's current issues. Once the committee is back in action, its members will be able to discuss what action to take, what people will be in charge of each action and create a project calendar. **(Planned completion: April 2012)***

*All the documents have been revised and classified according to whether they need to be removed, updated or maintained, and an action plan for the work and follow-up will be proposed." **(Planned completion: September 2012)***

## 4. APPENDIX

### 4.1. PURCHASE AGREEMENTS REVIEWED

**Table A—Details of the 16 Purchase Agreements in our Audit Sample**

Tender number	Number of agreements per call for tenders	Amount of agreement	Duration of agreement	Year awarded	Type of contract		
					Procurement of goods	Professional services	General services
07-10322	1	\$0.5 million	5 years	2007	Motor fleet equipment and vehicle batteries		
07-10559	1	\$1.9 million	5 years	2007		Legal interpretation and translation services provided to Municipal Court	
08-10848	1	\$2.6 million	6 years	2008		Retention of an actuarial consulting firm – group insurance	
09-10905	1	\$0.6 million	3 years	2009	Procurement of oils and lubricants for motor equipment		
09-11085	1	\$2.8 million	3 years	2009		Support provided to boroughs and central departments for an employee assistance program	
10-11246	2 (2 suppliers)	\$0.65 and \$0.68 million	3 years	2010	Recycling bags, recycling bins and rolling bins		
10-11285	1 (1 supplier)	\$0.9 million	3 years	2010	Hydrated lime for water production plants		
10-11423	1	\$4.2 million	2,5 years	2010	Desktop computers, laptops and other standard equipment		
11-11530	1	\$1.5 million	1 year	2011	Asphalt		
11-11559	4 (4 suppliers)	\$9.2 million (2.3 million x 4)	4.7 years	2011		Bailiff services	
11-11599	1	\$2.4 million	3 years	2011			Procurement of labour and materials for ground maintenance at the Montréal Biodôme
11-11666	1	\$6.3 million	6 months	2011	De-icing salt		
<b>12 calls for tenders</b>	<b>16 purchase agreements</b>						

# V.10. Compliance with Laws and Regulations



**Vérificateur général**  
de la Ville de Montréal



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## LIST OF ACRONYMS

CDN–NDG	Côte-des-Neiges–Notre-Dame-de-Grâce	DSTI	Direction des stratégies et des transactions immobilières
CSEM	Commission des services électriques de Montréal	SCARM	Service de la concertation des arrondissements et des ressources matérielles
DEDD	Direction de l'environnement et du développement durable		

## V.10.COMPLIANCE WITH LAWS AND REGULATIONS

### 1. INTRODUCTION

The implementation of measures to regulate compliance with laws and regulations is an integral part of sound risk management and good governance practices. Due to the diversity of their activities and the services offered to citizens, municipalities are confronted with a multitude of laws and regulations, thus increasing the risks of non-compliance, i.e., failing to meet their obligations under laws and regulations.

Whether it be managing roads, bridges and tunnels, developing parks, rolling stock and buildings, issuing permits or managing aspects of the environment and sustainable development, to name just a few areas of responsibility, there are a large number of laws and regulations governing the daily management of Ville de Montréal (the city) operations. The number of these laws and regulations and the significance of several of them require updated information and strict monitoring on the part of all municipal stakeholders involved to reduce the risks that may result from non-compliance (e.g., financial losses, public safety violations, lawsuits, citizen dissatisfaction, damages to the city's image).

During preparation of the 2003 financial statements in 2004, when the Bureau du vérificateur général raised concerns about the lack of a complete list of all the laws and regulations applicable to the city, or a list of procedures or persons designated to ensure compliance, the Service des affaires corporatives<sup>1</sup> was mandated to implement measures to address these concerns. Action was immediately taken to establish the bases of a process that would ultimately lead to a declaration of compliance with laws and regulations. To do so, the central departments were first asked to create a directory of laws and regulations governing their activities and evaluate the risk level from non-compliance according to their knowledge level of the application of these laws and regulations.

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<sup>1</sup> This department no longer exists. Most units of this department now fall under the Service des affaires juridiques et de l'évaluation foncière.

Following its approval by the city manager, the first administrative framework, entitled [TRANSLATION] “Compliance with laws and regulations,” came into effect on August 23, 2007. Under the responsibility of the Service des affaires corporatives, it includes a directive, procedure and guides.

The guides of this administrative framework, which covered only the central municipal departments at the time, suggest work tools to:

- establish and frequently update a directory of laws and regulations
- determine the knowledge level and assess the risks surrounding compliance with laws and regulations (fact sheet and risk analysis grid)

More specifically, it determines the mechanisms for the annual accountability process to the city manager in a prescribed form. Consequently, every year the directors of each of the central departments are required to produce and send to the city manager a certificate of compliance to attest that their business unit complies with the laws and regulations that govern its areas of responsibility.

Concurrently, work continued to include all city business units. In 2008, steps were taken to introduce a similar process in the boroughs. A working group made up of borough secretaries from four boroughs was created to prepare a directory of all the laws and regulations governing the activities carried out in the boroughs. The work was completed in March of 2009.

In the fall of 2009, representatives designated by the Service des affaires corporatives organized four information sessions for all boroughs. The directory created by the working group was submitted to the borough representatives at these sessions. They were asked to read it and, if necessary, add any laws and regulations applicable to their specific situation. Moreover, the work tools suggested in the 2007 administrative framework to determine the knowledge level and risk assessment surrounding compliance with laws and regulations were presented and explained to them so that they could begin work.

Subsequently, on October 10, 2010, the city manager approved a new administrative framework on the same subject, i.e., compliance with laws and regulations, which replaced the 2007 document. While its content is largely similar to the 2007 version, we found that it now applies to all city boroughs and some bodies, in addition to the central departments. The framework now designates the city's Direction générale as the body in charge of drafting, implementing and evaluating it.

## 2. AUDIT SCOPE

The purpose of our audit was to evaluate the extent to which the city's business units and certain bodies manage the various activities under their responsibility to ensure compliance with the laws and regulations that govern them and how they report on it.

More specifically, we wanted to find out about the existence of: a complete and updated directory of the laws and regulations governing the activities of the business units visited; measures taken to regularly evaluate the knowledge level of these laws and regulations, given the significant underlying risks associated with non-compliance; tracking, analysis and communication mechanisms implemented to inform the staff when legislative and regulatory modifications arise; and lastly, accountability mechanisms to indicate that the audited entities have taken the proper steps to ensure compliance with laws and regulations.

Our audit was focused on seven business units and one body:

- Service du développement et des opérations: Direction de l'environnement et du développement durable (DEDD)
- Service de l'eau: Direction de l'eau potable
- Service de la concertation des arrondissements et des ressources matérielles (SCARM): Direction des immeubles
- Lachine borough: Direction des travaux publics
- Montréal-Nord borough: Direction des travaux publics
- Côte-des-Neiges–Notre-Dame-de-Grâce borough (CDN–NDG): Direction des travaux publics

- Le Plateau-Mont-Royal borough: Direction des travaux publics
- Commission des services électriques de Montréal (CSEM)

The audit, which began in the spring of 2011, dealt primarily with 2010, but also took into account information sent and communicated to us up until August 2011. For certain aspects, data from previous years were also considered.

### 3. FINDINGS, RECOMMENDATIONS AND ACTION PLANS

#### 3.1. APPLICATION OF THE ADMINISTRATIVE FRAMEWORK

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

The city's Direction générale describes administrative frameworks as *[TRANSLATION]* "one of the main vehicles used by the city administration to communicate and promote its management philosophy . . . The administrative frameworks are intended to help the agency reach its objectives and manage its risks while informing employees of what is expected of them as well as the scope of their freedom of action."<sup>2</sup>

In this perspective, with the adoption of an administrative framework dealing specifically with compliance with laws and regulations, we found that the city took the necessary measures to provide the city administration with guidelines and steps to evaluate the extent to which compliance with laws and regulations is ensured in each business unit.

This administrative framework, *[TRANSLATION]* "Compliance with laws and regulations," establishes the process applicable to the city's business units and the bodies in question. Essentially, this process revolves around the following four main elements:

- preparing and frequently updating a directory of laws and regulations that govern activities
- evaluating knowledge level of the main elements of these laws and regulations (using a work tool entitled *[TRANSLATION]* "Fact Sheet")

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<sup>2</sup> Administrative framework (C-OG-SDG-D-05-001) entitled *[TRANSLATION]* "Guidelines and process description (directive)."

- awareness of the level of risks associated with non-compliance with these laws and regulations through the knowledge level (using a work tool included in the fact sheet entitled “Risk Analysis Grid”)
- reporting annually to the city manager on October 1 of each year with a certificate of compliance attesting that the manager in charge of a business unit has taken all the proper steps to ensure compliance with the laws and regulations that govern its areas of responsibility

Although the administrative framework that we audited had been in effect since October 2010, we were surprised to find that, at the time of our audit in spring 2011, several business units were unaware of it. Bear in mind that, in contrast to the previous administrative framework (October 2007), the new framework encompasses all city boroughs and certain bodies in addition to the central departments. Few boroughs we audited, not even the CSEM, seemed very familiar with the guidelines contained in the administrative framework, except for central department administrative units, which have been following the steps of the process chosen by the city administration since 2007. Yet, in 2008 and 2009, representatives of the Service des affaires corporatives had made efforts to make all boroughs aware that a process similar to the one applicable to the central departments meant to set guidelines for compliance with laws and regulations would soon take effect. In particular, information sessions were organized and a directory of all the laws and regulations governing the activities carried out in the boroughs was produced and submitted to each borough. However, the information gathered indicates that no particular action was taken to inform bodies such as the CSEM and explain the prescribed process.

Furthermore, at the time of our audit, we were informed that a SCARM manager had taken steps to challenge the basis for making the administrative framework applicable to the boroughs. According to the information gathered, this investigation was driven by comments received by certain boroughs to the effect that, due to their limited resources, the workload involved in carrying out some of the steps of the process prescribed in the administrative framework was too large. In April of 2011, the SCARM requested legal advice from the Service des affaires juridiques et de l'évaluation foncière. The opinion received was that an administrative framework adopted by the central authority only

affects the responsibilities of the boroughs if the city manager has made the subject of the framework a strategic operation as defined in section 57.1 of the *Charter of Ville de Montréal* (the Charter).

However, it appears that the 2010 administrative framework came into force and was communicated to all involved without first being declared a strategic operation by the city manager. According to the information received from the person in charge of the file in the Direction générale, the department was counting on the cooperation of the boroughs in this matter. In these circumstances, while the boroughs did not disagree with the need to put in place measures to ensure regulatory compliance, they were not obliged, at the time of our audit, to apply the administrative framework.

As for the CSEM, it is also subject to this framework pursuant to section 26 of schedule C of the Charter, which states that, for administrative purposes, this body is considered a department of the city.

Compliance with laws and regulations is paramount for an institution such as the city. Upon closer examination of the content of the 2010 administrative framework, however, it becomes apparent that the three other elements of the process, apart from the certificate of compliance, which is clearly established in the administrative framework, are presented in the form of suggested guides, which the management of the relevant business units can choose to use or not (e.g., directory list template, fact sheets to document the knowledge level and the risk analysis of law and regulation). We believe it is important for the city administration to be able to rely on the application of an administrative framework that ensures that all business units have taken the proper steps to evaluate and report on their ability to meet the applicable legal and regulatory requirements. It seems likely that a lack of standardized methodology will result in major differences between the business units' practices to prepare the directory and evaluate the knowledge level and underlying risks associated with non-compliance. Not to mention the fact that this lack of standardization will make tracking its application more difficult.

We believe that it would be appropriate to determine the measures that could facilitate application of the various steps of the mechanism by the units involved to reduce and eliminate duplication and overlapping of responsibilities regarding one of the orientations in the guidelines of the administrative framework on compliance with laws and regulations. Several business units, particularly the 19 boroughs, manage similar activities that are largely subject to the same laws and regulations. We therefore feel that the 2008 initiative to provide all boroughs with a directory of laws and regulations governing the activities under their responsibility is relevant.

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

**To ensure that all city business units have taken reasonable steps to sufficiently understand the requirements of the applicable laws and regulations and to report on them, we recommend that the Direction générale:**

- A) take the necessary measures to declare compliance with laws and regulations a strategic operation in accordance with the *Charter of Ville de Montréal***
- B) modify the current administrative framework so that it prescribes a standardized methodology to be used by all business units involved**
- C) assess the need to hold new information sessions to explain the extent of the work required as well as their responsibilities to the relevant business units**
- D) determine the measures needed to facilitate application of the various steps of the process for each of the units involved while reducing and eliminating duplication and overlapping of responsibilities**

### **3.1.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] “Implementation of the action plan refers to the following administrative frameworks on compliance with laws and regulations:*

- Directive: C-OG-DG-D-11-003 dated September 2, 2011*
- Guide: C-OG-DG-P-11-003 dated September 2, 2011*
- Procedure: C-OG-DG-P-002 dated September 2, 2011”*

A) *[TRANSLATION] “The administrative framework addresses the recommendation and reads as follows: ‘given that compliance with the laws and regulations that govern our activities represents a strategic operation, this directive as well as its*

related frameworks will be applied by all city departments, boroughs and the Commission des services électriques de Montréal.” **(Completed)**

B) [TRANSLATION] “The modified framework came into effect on September 2, 2011.” **(Completed)**

C) [TRANSLATION] “A meeting was held with borough directors on August 30, 2011, during which the new directive was presented to them. The implications of this directive and their responsibilities were explained in detail.” **(Completed)**

D) [TRANSLATION] “Hiring of a lawyer in the Service des affaires juridiques et de l'évaluation foncière to implement the directive for the boroughs.” **(Planned completion: January 2012)**

### 3.2. CREATION OF THE DIRECTORY OF LAWS AND REGULATIONS

The purpose of creating a directory is to compile all the laws and regulations that govern the activities of a business unit. This directory, which should contain both the regulations adopted by various city authorities as well as the laws and regulations of the provincial and federal governments, serves as a control tool to facilitate compliance with laws and regulations. Because it allows for quick access to the laws and regulations that apply to the activities of the business unit, it is an essential reference tool for staff in the performance of their duties.

As the saying goes, “ignorance of the law is no excuse.” Consequently, although the applicable administrative frameworks serve as guides to achieve city administration objectives, the fact remains that even if these guidelines did not exist, all city business units have the duty not only to identify and understand the laws and regulations that affect the activities under their responsibility, but also to develop reference tools to ensure compliance with them.

The results of our audit regarding this initial step of the mechanism for compliance with laws and regulations are presented below. They include an assessment of the current

situation in the central departments and the body visited, specifically the CSEM, as well as an assessment of the current situation in the selected boroughs.

### **3.2.1. CURRENT SITUATION IN THE CENTRAL DEPARTMENTS AND THE COMMISSION DES SERVICES ÉLECTRIQUES DE MONTRÉAL**

#### **3.2.1.A. Background and Findings**

##### **SERVICE DU DÉVELOPPEMENT ET DES OPÉRATIONS: DIRECTION DE L'ENVIRONNEMENT ET DU DÉVELOPPEMENT DURABLE**

Our audit revealed that the DEDD applies the administrative framework on compliance with laws and regulations to which it is subject and uses the tools suggested in the guidelines.

We also observed the existence of a formal directory and received a copy of the latest version dated June 2009, as no updates were made to the directory in 2010 or in the period from January 1 to August 12, 2011. Each division first put together a directory, and these were then consolidated by a designated employee into one directory for the entire department.

However, upon closer examination of the directory, we found it to be incomplete. In fact, certain laws and regulations were missing, despite being related to the activities of the various divisions of the DEDD. We also noticed that certain laws that had been replaced a few years ago appeared in the directory.

According to the information gathered from the people we met with, each division has an electronic directory listing the documents related to the laws and regulations specific to its activities. In addition, each division has a paper copy of the directory of laws and regulations available to employees involved. This filing method seems adequate to us.

## **SERVICE DE L'EAU: DIRECTION DE L'EAU POTABLE**

The Direction de l'eau potable is also subject to application of the administrative framework on compliance with laws and regulations and uses the tools suggested in the guidelines.

While a directory prepared according to undated administrative framework guidelines was found in a Direction de l'eau electronic file, some of the managers and employees we met with during our audit did not seem to be aware of it. In fact, according to the information gathered from the people we met with, the directory in question is not accessible to all department employees. To promote compliance with laws and regulations, we feel that it is essential that the directory be filed so that it is accessible to all staff members that need it to perform their duties.

An examination of the content of the above-mentioned electronic directory revealed the following information:

- This directory, prepared in accordance with the administrative framework, contains laws and regulations affecting Direction de l'eau potable activities.
- Various files contain the full text of some laws and regulations (e.g., the Charter, the *Regulation respecting the awarding of contracts for certain professional services*).

However, neither the directory of laws and regulations prepared under the administrative framework nor the list of the various electronic files containing the full text of laws and regulations are complete or up to date with regard to the activities of the Direction de l'eau potable. Some laws and regulations can be found in one list but not the other. Some of the laws and regulations are outdated in some respects. Other laws and regulations appear in neither the directory nor the various electronic files.

In short, two means are used to compile the laws and regulations, but neither contains all of the laws and regulations affecting the activities of the Direction de l'eau potable. We feel that such a practice is likely to lead to confusion in applying the laws and regulations and does not provide reasonable assurance of compliance.

**SERVICE DE LA CONCERTATION DES ARRONDISSEMENTS  
ET DES RESSOURCES MATÉRIELLES: DIRECTION DES IMMEUBLES**

The Direction des immeubles applies the administrative framework on compliance with laws and regulations to which it is subject to and uses the tools suggested in the guidelines.

Our audit revealed that an employee in the Direction des stratégies et transactions immobilières (DSTI) was put in charge of preparing and updating the directory of laws and regulations governing the activities of his division as well as that of the Direction des immeubles.

Consequently, the information gathered from the people we met with revealed the existence of various directories and records of laws and regulations in electronic format:

- Directory prepared in accordance with the guide provided in the administrative framework on compliance with laws and regulations. This directory, whose most recent version is dated August 2009, is organized by division and contains, among other things, a list of laws and regulations related to the activities of the Direction des immeubles. This directory is kept in the DSTI; however, according to information received, employees of the Direction des immeubles do not have access to this electronic directory.
- List of electronic files containing the full text of laws and regulations related to the activities of the DSTI and certain activities of the Direction des immeubles. These files contain Québec and federal legislation as well as municipal by-laws, including borough by-laws. All employees of this division have access to these files, but not employees of the Direction des immeubles.
- List of electronic files, prepared by an employee of the Direction des immeubles, containing laws and regulations related to a portion of the activities of the Division gestion des travaux d'entretien, specifically the electrical maintenance sector.

While the first directory is fairly detailed for the Direction des immeubles, we found it to be incomplete and not up to date. Some of the laws and regulations pertaining to the activities of the Direction des immeubles are missing and some of the laws and regulations have been obsolete for many years.

The other directories do not include all of the laws and regulations pertaining to the activities of the Direction des immeubles either. In short, we found that the directory and other lists do not include all laws and regulations governing the activities of the Direction des immeubles.

Filing of the directory of laws and regulations does not appear adequate to us. We feel it would be preferable for all information related to the directory to be centralized in the same location to avoid confusion and filed so all employees involved have access, which is not currently the case.

### **COMMISSION DES SERVICES ÉLECTRIQUES DE MONTRÉAL**

While the CSEM has been subject to the administrative framework on compliance with laws and regulations since October 2010, we found that, at the time of our audit, it did not use the tools suggested in the guidelines. Nevertheless, in the interest of furthering our analysis, we asked the managers that we met with to give us all information that could demonstrate the existence of a directory of laws and regulations.

The information received revealed that the CSEM uses two main tools to document the laws and regulations pertaining to its activities. First, there is a binder containing a hard copy of the laws and regulations governing its activities. Only one copy of this binder is available, however. Second, it also uses an electronic directory called [TRANSLATION] “Legal framework,” which is available to all employees with a computer.

Upon closer examination of the content of the binder of laws and regulations as well as the electronic directory, we found that they do not contain all of the laws and regulations relating to the activities of the CSEM. We also found that some of the laws and regulations in the binder do not appear in the electronic directory and vice versa. Moreover, these two tools contain laws and regulations that are not current or that have been obsolete for many years.

### 3.2.2. CURRENT SITUATION IN THE BOROUGHS

#### 3.2.2.A. Background and Findings

##### **LACHINE BOROUGH: DIRECTION DES TRAVAUX PUBLICS**

Our audit revealed that a list of laws and regulations (the one sent in 2009 by the Service des affaires corporatives) has been integrated into the Direction des travaux publics' electronic directory. According to the managers we met with, department staff has access to the list through this electronic directory.

The list in question is a version dated March 13, 2009, and no updates have been made since, despite amendments made to some laws and regulations. We noticed that some laws are listed even though they were replaced some years ago.

We also found another file, which essentially contains only borough and city by-laws, some of which are outdated.

In brief, the Direction des travaux publics uses two different means to document laws and regulations (the directory and a file containing the list of borough and city by-laws); however, neither of these includes all of the laws and regulations affecting its activities.

##### **MONTRÉAL-NORD BOROUGH: DIRECTION DES TRAVAUX PUBLICS**

According to the information gathered from the people we met with, the Direction des travaux publics of the Montréal-Nord borough does not use the method proposed in the administrative framework on compliance with laws and regulations with respect to the directory.

While the Direction des services administratifs, des relations avec les citoyens et du greffe for this borough has created a list of the by-laws adopted by its borough council, the audit we performed within the Direction des travaux publics revealed that it does not have a documented directory of the laws and regulations governing its activities. During our visit, we did observe, however, that several of the borough's by-laws (including the

main ones related to its activities), as well as laws and regulations related to other authorities (city council, provincial government, etc.) and legislative bills were kept in the Travaux publics director's office. We believe that the formal constitution of a complete directory that is accessible to all staff members is indispensable in ensuring compliance with all the laws and regulations governing the activities of this department.

**CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH:  
DIRECTION DES TRAVAUX PUBLICS**

Our audit revealed that the Direction des travaux publics of the CDN–NDG borough has a directory of the by-laws adopted by its borough council, and this directory is located in an electronic file that includes the full text of each of these by-laws. All borough employees have access to this file.

Apart from this directory of borough by-laws, the Direction des travaux publics does not have a directory also for the laws and regulations of other authorities. We did find, however, that another department, the Direction des services administratifs et du greffe, has the directory of laws and regulations that the Service des affaires corporatives prepared and sent to the boroughs in 2009. This directory contains a list of laws and regulations organized by department, including the Direction des travaux publics. We noticed that this directory had been reproduced in its entirety and no modifications have been made to it. Some laws do not appear in it and it is therefore not current. Furthermore, we found that some laws appear in the directory even though they were replaced many years ago.

We realize that the creation and updating of the directory may be centralized in another department; however, we feel it is essential that the directory be filed so that it is available to all staff members that need it to perform their duties.

It should be mentioned that a manager in the Division du greffe, which falls under the above-mentioned Direction des services administratifs et du greffe, took the initiative to put together a CD-ROM containing the texts of the laws and regulations appearing in the 2009 directory that pertain to the activities of the Direction des travaux publics. This

tool was sent to the Direction des travaux publics following the interviews that we conducted with borough staff.

### **LE PLATEAU-MONT-ROYAL BOROUGH: DIRECTION DES TRAVAUX PUBLICS**

According to the information received from the people we met with, the Direction des travaux publics of Le Plateau-Mont-Royal borough does not use the method proposed in the administrative framework on compliance with laws and regulations with respect to the directory.

To further our analysis, we asked the people that we met with to provide us with any document or information that could demonstrate the constitution of a directory of laws and regulations.

The information received during our audit revealed that a complete and updated directory of the laws and regulations governing the activities of the Direction des travaux publics had not been created, apart from a copy of a few laws and regulations kept by the head of the Division de la voirie in his office. Only a list of the by-laws adopted by the borough council was drawn up by the Direction des services administratifs, des relations avec les citoyens et du greffe. This list was found in a shared electronic directory. However, not all employees of the Direction des travaux publics have access to this directory.

### **CONCLUSIONS FOR ALL BUSINESS UNITS VISITED**

In our opinion, the creation of a complete and current directory is indispensable for a business unit, because it allows it to inventory all of the laws and regulations that govern its areas of responsibility. Given the considerable number of laws and regulations that exist and the frequent amendments that are made to them, an updated directory is an important reference tool, since it:

- Facilitates locating the laws and regulations related to the business unit's activities.

- Reduces the risks of error and confusion if an obsolete law or regulation is applied inappropriately, or conversely, if a current law or regulation is not applied when it should be.
- Serves as a relevant reference tool that provides information to employees about the laws and regulations that govern the activities under their responsibility and facilitates onboarding and training of new employees, who benefit from a practical and handy tool.
- Serves as a basis for conducting effective legal monitoring, as we will see in this report.

In addition, lack of a complete and updated directory leads to doubts as to the effectiveness of the measures taken to ensure compliance with laws and regulations and makes the business unit more vulnerable to the consequences of non-compliance.

Our audit revealed that the directories contained deficiencies. We also doubt that they are complete with regards to the laws and regulations they should contain.

For these reasons, we feel that effort should be invested to ensure that every business unit has a complete directory, which will subsequently be kept up to date and be made available to all staff members that need it for the performance of their duties.

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

**We recommend that the Direction de l'environnement et du développement durable, the Direction de l'eau potable, the Direction des immeubles, the Commission des services électriques de Montréal as well as the Travaux publics departments of the Lachine, Montréal-Nord, Côte-des-Neiges–Notre-Dame-de-Grâce and Le Plateau-Mont-Royal boroughs take the necessary measures to ensure that they have a complete and regularly updated directory of laws and regulations as a reference tool for compliance with the laws and regulations governing their areas of responsibility.**

**We also recommend that the Direction de l'eau potable, the Direction des immeubles, the Commission des services électriques de Montréal, and the**

Travaux publics departments of the Montréal-Nord, Côte-des-Neiges–Notre-Dame-de-Grâce and Le Plateau-Mont-Royal boroughs ensure that their directory is available to all staff members that need to use it in the performance of their duties.

### 3.2.C. Action Plan of the Relevant Business Unit

- **DIRECTION DE L'ENVIRONNEMENT ET DU DÉVELOPPEMENT DURABLE**

[TRANSLATION] “Ensure that the existing directory of laws and regulations is a complete and updated reference tool accessible to all relevant staff members.

- Appoint one person per unit to be in charge of updating the directory of the laws and regulations governing their areas of responsibility.
- Verify regularly with those in charge of each unit that the directories of laws and regulations are updated.
- Give the directory of laws and regulations a specific title as part of the classification scheme for DEDD documents.
- Adjust computer security to make the directory files accessible to authorized personnel.” **(Planned completion: May 2012)**

- **DIRECTION DE L'EAU POTABLE**

[TRANSLATION] “Systematic inventory of relevant environmental laws and regulations. **(Planned completion: April 2012)**

- Questionnaire for managers to specify certain requirements **(Planned completion: January 2012)**
- Finalization of the directory **(Planned completion: April 2012)**

Review of existing lists with managers. **(Planned completion: June 2012)**

- Consultation with the Service des affaires juridiques et de l'évaluation foncière **(Planned completion: February 2012)**
- Consultation with the managers of the Direction de l'eau potable **(Planned completion: May 2012)**

Creation of a consolidated directory. **(Planned completion: September 2012)**

Upload the directory to a server that is accessible to all Direction de l'eau potable managers." **(Planned completion: October 2012)**

- **DIRECTION DES IMMEUBLES**

[TRANSLATION] "Put together a joint DSTI/Direction des immeubles working committee of resource people for main real estate activities (e.g., maintenance, environment, project management) to create the directory of laws and regulations.

The DSTI/Direction des immeubles working committee will determine the measures and means necessary to ensure that the directory is regularly updated. **(Planned completion: October 2012)**

The DSTI/Direction des immeubles working committee will determine the tools and measures to put in place to ensure that the directory of laws and regulations pertaining to real estate activities is always accessible to the relevant people in the central departments of the agglomeration and boroughs." **(Planned completion: October 2012)**

- **COMMISSION DES SERVICES ÉLECTRIQUES DE MONTRÉAL**

[TRANSLATION] "Create a directory of the laws and regulations governing the activities of the CSEM. **(Planned completion: December 2011)**

Distribution of the directory of laws and regulations to the relevant personnel." **(Planned completion: December 2011)**

- **LACHINE BOROUGH**

[TRANSLATION] "Creation of a virtual documentation centre accessible from any computer station in the Direction des travaux publics and all other stations in the borough. This centre will include a master file with the updated directory of laws and regulations as well as a hot link to the latest available version. This file will also indicate the resource person for each law and regulation and which employees are specifically targeted by them for the Direction des travaux publics and all other departments." **(Planned completion: March 2012)**

- **MONTRÉAL-NORD BOROUGH**

[TRANSLATION] *“The directory of the laws and regulations applicable to all the departments of the borough has been created by the borough secretary.*

*Validation will be performed with the Service des affaires juridiques et de l'évaluation foncière with regard to legal monitoring.*

*This directory will be submitted to each director for verification.*

*Approval of the directory will be obtained from the directors.*

*Comments on the directory will be submitted to the borough secretary.*

*Directors will submit their lists of people in charge in each division to the borough director with copy to the borough secretary.*

*Once approved by the various departments, the directory will be placed on a shared network in read-only mode so that all the relevant people may access it. The borough secretary will be responsible for keeping the directory on the shared network up to date.” (Planned completion: December 2011)*

- **CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH**

[TRANSLATION] *“A lawyer has been hired by the boroughs to guide them in creating a directory of laws and regulations. A complete directory will be created in collaboration with this individual. (Planned completion: April 2012)*

*Once it is completed, the borough's Division du greffe will post the list of laws and regulations on the borough's file sharing site so that the Direction des travaux publics and all the borough's departments have access to it. This division will have to verify that the list is complete. (Planned completion: May 2012)*

*A CD-ROM containing each of the laws and regulations affecting the Direction des travaux publics will be created and submitted by the Division du greffe to the*

*Direction des travaux publics to facilitate risk assessment.” (Planned completion: June 2012)*

- **LE PLATEAU-MONT-ROYAL BOROUGH**

*[TRANSLATION] “Pursuant to an inter-borough agreement with the Service des affaires juridiques et de l’évaluation foncière, a lawyer will be hired to guide the boroughs in creating a directory of laws and regulations. A complete directory will be created with the cooperation of our teams and this lawyer. (Planned completion: April 2012)*

*Once the directory is completed, the Division des relations avec les citoyens et du greffe will post the list of laws and regulations on the borough’s file sharing site so that all the employees of the Direction des travaux publics as well as those of all the other departments have access to the documents.*

*Links to the Internet or to the internal server will be included to facilitate risk assessment.” (Planned completion: May 2012)*

### **3.3. EVALUATION OF THE KNOWLEDGE LEVEL OF LAW AND REGULATION AND RISKS OF NON-COMPLIANCE**

Assessing the degree of understanding laws and regulations consists mainly in regularly analyzing the measures put in place by the business unit in charge (e.g., training program, employee certification, physical inspection mechanisms), to have reasonable assurance that the requested controls are in place and that employees possess the tools and expertise necessary to carry out their duties in compliance with these laws and regulations.

This exercise to assess the law and regulation knowledge level is closely linked to the need to evaluate the risks that may result from non-compliance with laws and regulations. Ultimately, this risk evaluation should make it possible to prioritize them by their importance (e.g., low-risk to high), then focus measures on specific activities to

reduce the occurrence of situations causing the body to fail to meet its obligations under these laws and regulations.

The administrative framework that we audited suggests work tools in its guidelines to evaluate and document measures taken to ensure that the risks of non-compliance for all of the laws and regulations governing the activities of a business unit are known. Documentation of these evaluations should ultimately serve as support for delegated managers in confirming that their business units have taken the proper measures to ensure compliance with applicable laws and regulations.

Accordingly, in order to evaluate the knowledge level of a particular law or regulation, the administrative framework suggests business units use a fact sheet to document their analyses of the following aspects, among others:

- title of the law or regulation
- description of the area of activity related to this law or regulation (e.g., production of drinking water)
- list of related laws and regulations
- description of the current mechanisms used to develop, maintain and increase staff expertise in this legal or regulatory area (e.g., creation of a training plan, establishment of mechanisms to communicate modifications)
- description of current support mechanisms surrounding the application of this law or regulation (e.g., physical inspection mechanisms, the preparation of guides)
- description of current accountability mechanisms surrounding the application of this law or regulation

Taking into account the results of this evaluation, the fact sheet incorporates evaluation of the residual risk related to non-compliance with this law or regulation. The proposed fact sheet includes an analysis grid made up of the main business risks generally recognized in the area:

- loss of income
- high costs
- destruction of assets
- business interruption

- citizen dissatisfaction
- negative corporate image for the city or business unit
- bad management decisions
- insufficient management information or data
- government criticism
- lawsuits
- non-compliance with recognized accounting principles
- fraud
- conflicts of interest

Viewed in this manner, the evaluation makes it possible to determine the activities for which the business unit is most vulnerable, and then the fact sheet documentation is completed by determining the mechanisms to implement to reduce the risks of error in the application of a law or regulation.

Remember that the evaluation of law and regulation knowledge level and degree of risk must be carried out together with a properly assembled and updated directory of laws and regulations.

For these steps of the process, the results of our audit are presented below. As with the previous section of this report (section 3.2), they outline the current situation in central departments, the CSEM as well as the boroughs included in our sample.

### **3.3.1. CURRENT SITUATION IN THE CENTRAL DEPARTMENTS AND THE COMMISSION DES SERVICES ÉLECTRIQUES DE MONTRÉAL**

#### **3.3.1.A. Background and Findings**

##### **SERVICE DU DÉVELOPPEMENT ET DES OPÉRATIONS: DIRECTION DE L'ENVIRONNEMENT ET DU DÉVELOPPEMENT DURABLE**

Our audit revealed that the DEDD uses the method suggested through the guides that accompany the framework on compliance with laws and regulations. We therefore received a copy of the most recent fact sheets available, dated June 2009 as no

updates have been made since. In reviewing these documents, we found that all of the laws and regulations found in the directory produced by this department in 2009 had been evaluated for risks related to knowledge level. A more concise version of these same evaluations were carried out for all of the laws and regulations affecting the activities of the Complexe environnemental de Saint-Michel using a single fact sheet and risk analysis grid. First, we believe that such a practice is questionable. Evaluating knowledge level and risks related to non-compliance for more than forty laws and regulations involving various areas of activity on a single fact sheet certainly does not allow for all the major risks to be determined and reduces the usefulness of the process. We believe that this procedure could lead to overlooking complex situations and failure to introduce measures to reduce the risks of non-compliance at the appropriate time. Since the directory of the laws and regulations has not been updated since 2009 (see section 3.2.1 of this report), some laws and regulations involving the activities of the Direction have not been evaluated for knowledge level or degree of underlying risk.

Apart from the situation observed for the Complexe environnemental de Saint-Michel, the other existing fact sheets, including the risk assessment grid, appeared to have been properly completed. Moreover, they were filed in electronic directories, accompanied by the related laws and regulations. This filing method seems adequate to us.

To further our analysis, we asked the people we met with to provide us with any document or information that could demonstrate that measures were taken to ensure proper law and regulation knowledge. We were then informed of the implementation of the following measures, which are, in our opinion, relevant tools for achieving such a goal:

- Periodic or planned information sessions for employees. We found that training records listing which employees had attended the sessions were kept.
- Training program as part of orientation and onboarding of new employees.
- Guide to application of the *By-law concerning pesticide use*.
- List of frequently asked questions regarding the application of certain laws and regulations. This is a tool produced by the Direction to answer questions that

employees may have about (e.g., the *By-law concerning discharges at purification works on the territory of the urban agglomeration of Montréal*).

- Audits of some DEDD activities to ensure compliance with laws and regulations related to the environment. This initiative is a relevant way to evaluate the level of law and regulation knowledge and the risks of non-compliance associated with it.

#### **SERVICE DE L'EAU: DIRECTION DE L'EAU POTABLE**

Based on the information received and examination of the documents provided, our audit revealed that under the first administrative framework published in August 2007, which was subsequently replaced in October 2010, the Direction de l'eau potable carried out an evaluation of law and regulation knowledge level and a risk analysis in the event of non-compliance. It used the method suggested in the administrative framework on compliance with laws and regulations as well as the guides provided.

We collected the fact sheets containing the risk analysis grids for the most recent completed version, dated August 2008 according to the information received. The document is in fact labelled [TRANSLATION] "August 2008 version" and no update has been made since. We found that certain laws and regulations pertaining to the activities of the Direction de l'eau potable did not undergo any evaluation of the knowledge level and risks. Conversely, we also found completed fact sheets on laws and regulations that had become obsolete before measures for compliance with laws and regulations were taken by the city around 2004. The fact sheets collected are not up to date and do not include all of the laws and regulations relating to the activities of the Direction.

We also found that certain fact sheets were incomplete and inaccurate. In particular, some of the information in these sheets did not match that provided by the people we interviewed. For example, the fact sheet on the *Regulation respecting the quality of drinking water* indicates [TRANSLATION] "None" in the section [TRANSLATION] "Description of current mechanisms used to develop, maintain and increase staff expertise in this legal or regulatory area." However, according to the information we received and documents that we reviewed, training is provided to employees who have to perform work on the city's water supply system and training records are kept.

We also found that certain fact sheets make reference to laws and regulations that have been obsolete for many years in the section [TRANSLATION] “List and description of related laws and regulations.” We feel it is important that the fact sheets intended to document the evaluation of the law and regulation knowledge level contain complete, relevant and accurate information as well as up-to-date references in order to be useful in evaluating risks and subsequently determining corrective measures to put in place to ensure compliance with laws and regulations.

We also found that all of the fact sheets, regardless of the area of activity they were related to, were under the name of the same resource person in the Direction de l'eau potable. We feel that this practice should be re-examined and that a resource person capable of providing precise answers for a given area of activity should be determined.

Furthermore, the managers we met with stated that they did not know whether the fact sheets were accessible by all of the relevant employees. We received a hard copy of the fact sheets labelled [TRANSLATION] “August 2008 version” from the director of Eau potable. These only pertain to the Direction de l'eau potable. Upon examination, we were not able to find this version in the electronic directory. We did, however, receive from an employee another electronic version containing the fact sheets for all the departments of the former service, i.e., the Service des infrastructures, transport et environnement, which used to come under the Direction de l'eau potable. No date is indicated on this version; however, a comparative examination of the fact sheets of the Direction de l'eau potable revealed that these two differ very little. The second version can be found in the previously mentioned electronic directory. In our opinion, fact sheets should be filed in a more reliable manner to ensure that the information is available to all employees who need it and, more importantly, to avoid potential confusion between several versions.

To further our analysis, we asked the people we met with to provide us with any document or information that could demonstrate that measures were taken to ensure understanding of laws and regulations.

First, examination of the information gathered revealed that certain laws and regulations not found in the directory had undergone an evaluation to determine the degree of knowledge and level of risk associated with them, but this was done using a different method from the one suggested in the administrative framework on compliance with laws and regulations.

Second, the Direction de l'eau potable has implemented several other means to ensure law and regulation knowledge, given the risks involved. These include tools created for employees, such as a briefing document for new-employee orientation sessions and one on contract management (awarding contracts).

Ultimately, despite the efforts made within this department, improvements will have to be made to ensure that each law and regulation undergoes a documented evaluation of the knowledge level and related risks and that the information it contains is accurate, relevant and regularly updated.

**SERVICE DE LA CONCERTATION DES ARRONDISSEMENTS ET  
DES RESSOURCES MATÉRIELLES: DIRECTION DES IMMEUBLES**

Based on the information obtained from the people we met with and examination of the documents provided, we found that the Direction des immeubles uses the methodology proposed in the administrative framework to evaluate the degree of knowledge and risks related to non-compliance with applicable laws and regulations.

We obtained a copy of the fact sheets containing the risk assessment grid, the latest version of which is dated August 2008. The documents are labelled [TRANSLATION] "Updated: August 2008" and make reference to the former service, i.e., the Service de la mise en valeur du territoire et du patrimoine, under which the Direction des immeubles fell at the time.

When we examined these fact sheets (including the risk assessment grids) we found that, in addition to being outdated, they do not contain all the laws and regulations affecting the activities of the Direction. In fact, our examination only revealed four fact sheets.

Moreover, these sheets are filed in an electronic directory of the DSTI, in different files. The information in this directory is not accessible to employees of the Direction des immeubles. This filing method does not seem adequate to us. We feel it is essential that the fact sheets containing the risk assessment grids be filed so they are accessible to relevant staff members to facilitate selection of appropriate risk reduction measures.

To further our analysis, we asked the people we met with to provide us with any document or information that could demonstrate that measures were taken to ensure employees' knowledge of laws and regulations. We found that the following measures have been put in place:

- delivery of a variety of training sessions
- development of action plans on specific subjects (e.g., the plan related to padlocking)
- participation in various committees, including those of the Régie du bâtiment and the Ministère des Affaires municipales, des Régions et de l'Occupation du territoire

### **COMMISSION DES SERVICES ÉLECTRIQUES DE MONTRÉAL**

The CSEM has been subject to the administrative framework on compliance with laws and regulations since October 2010; however, at the time of our audit, it did not use the suggested guides accompanying this framework. In particular, the fact sheets intended for documenting the evaluation of knowledge of the laws and regulations that affect the activities of the CSEM, including the risk assessment grid, had not been filled out. According to the information gathered from the people we met with, no other document of this nature existed at the time of our audit.

To further our analysis, we asked the managers that we met with to provide us with any document or information that could demonstrate that a knowledge level evaluation of law and regulation and non-compliance risk analysis had been carried out.

The information obtained indicates that the CSEM ensures knowledge of the laws and regulations under its responsibility mainly through various training sessions offered to

employees. At the beginning of every year, an individual training plan is designed and training records are kept to keep track of which employees have received the training.

While the CSEM has taken measures to ensure employees know the laws and regulations, it is not in a position to establish the level of risk to which it would be exposed in the event of non-compliance with laws and regulations. Because risk analysis based on the degree of law and regulation knowledge is not carried out with a specific method and clearly documented, the CSEM is missing out on valuable information that could be very helpful in managing compliance with laws and regulations.

Going forward, we believe that it would be very useful for the documents (fact sheets) for evaluating knowledge level and risk assessment for laws and regulations governing the activities of the CSEM to be filed so as to be accessible to relevant personnel and used to determine the appropriate measures to take to reduce the risks of non-compliance.

### **3.3.1.B. Recommendations**

**To ensure compliance with all the laws and regulations governing the activities under their responsibility, we recommend that the Direction de l'environnement et du développement durable, the Direction de l'eau potable and the Direction des immeubles regularly update the fact sheets meant to document the evaluation of the knowledge level associated with them and the underlying risks of non-compliance.**

**For the same reasons, we also recommend that the Direction de l'eau potable ensure that the fact sheets are:**

- **filled out so they incorporate all relevant and correct information, facilitating risk assessment of non-compliance and selection of necessary mitigation measures**
- **registered under the name of a resource person who has the necessary expertise for a given area of activity**

- made available to all relevant employees and filed so as to prevent any potential confusion between several versions

We recommend that the Direction des immeubles ensure that the fact sheets are:

- registered under the name of a resource person who has the necessary expertise for a given area of activity
- made available to all relevant employees

We recommend that the Direction de l'environnement et du développement durable, particularly regarding the Complexe environnemental de Saint-Michel, avoid grouping knowledge and risk evaluation for laws and regulations affecting different activities in one fact sheet to make it easier to pinpoint problem situations and introduce proper measures to reduce the risks of non-compliance when appropriate.

In order to ensure compliance with all the laws and regulations governing the activities under its responsibility, we recommend that the Commission des services électriques de Montréal:

- take the necessary steps to ensure that all of laws and regulations governing its activities undergo a documented evaluation of the knowledge level and underlying risks associated with them
- regularly update these evaluations
- make this information available to all relevant employees so that they may use it to determine the appropriate measures to reduce the risks of non-compliance and follow up on them

#### **3.3.1.C. Action Plan of the Relevant Business Unit**

- 1) • **DIRECTION DE L'ENVIRONNEMENT ET DU DÉVELOPPEMENT DURABLE**  
[TRANSLATION] "Appoint one person per unit to be in charge of updating the fact sheets.

*Regularly verify the fact sheet updates with those in charge of each unit.*

*Include a specific heading for the fact sheets as part of the plan to create a classification scheme for all Direction documents.*

*Adjust computer security to make the fact sheets accessible to authorized personnel.” (Planned completion: May 2012)*

- **DIRECTION DE L’EAU POTABLE**  
[TRANSLATION] *“Systematic risk assessment to be carried out by all managers involved.” (Planned completion: February 2013)*
  
- **DIRECTION DES IMMEUBLES**  
[TRANSLATION] *“The DSTI/Direction des immeubles working committee will determine the procedures for and the frequency of updates for fact sheets pertaining to real estate activities.” (Planned completion: October 2012)*
  
- 2) • **DIRECTION DE L’EAU POTABLE**  
[TRANSLATION] *“Systematic risk assessment to be carried out by all managers involved.” (Planned completion: February 2013)*
  
- 3) • **DIRECTION DES IMMEUBLES**  
[TRANSLATION] *“A resource person with the appropriate expertise will be associated with each fact sheet. The DSTI/Direction des immeubles working committee will determine the measures to take to ensure that the relevant people have access to the fact sheets at all times.” (Planned completion: October 2012)*
  
- 4) • **DIRECTION DE L’ENVIRONNEMENT ET DU DÉVELOPPEMENT DURABLE**  
[TRANSLATION] *“Review the Complexe environnemental de Saint-Michel fact sheet to produce one fact sheet per area of activity.” (Planned completion: September 2012)*
  
- 5) • **COMMISSION DES SERVICES ÉLECTRIQUES DE MONTRÉAL**  
[TRANSLATION] *“Evaluate relevant staff’s knowledge level with regard to the laws and regulations that govern the activities of the CSEM.*

*Evaluation updating program.*

*Dissemination of information to relevant personnel.” (Planned completion: December 2011)*

### **3.3.2. CURRENT SITUATION IN THE BOROUGHS**

#### **3.3.2.A. Background and Findings**

As mentioned, the October 2010 administrative framework on compliance with laws and regulations applied to all boroughs. However, because the city’s Direction générale had not made the topic of this framework a strategic operation pursuant to section 57.1 of the Charter at the time of our audit, the boroughs had no obligation to abide by it. Our audit therefore consisted in examining the compensatory measures put forth in the selected boroughs.

Our audit revealed that none of the Direction des travaux publics of the four selected boroughs applied the methodology suggested in the administrative framework and that no other standardized method had been introduced to regularly document the assessment of the risk of non-compliance given the current knowledge level evaluation of the laws and regulations under their responsibility.

To further our analysis, we asked the people we met with to provide us with any document or information that could demonstrate the knowledge level evaluation of law and regulation as well as a non-compliance risk analysis.

#### **LACHINE BOROUGH: DIRECTION DES TRAVAUX PUBLICS**

At our first visit to this department, the people we met with explained to us that a rather informal and undocumented method based on legislative and regulatory developments and modifications that occur was preferred. They stated that, among other things, an analysis of the effect of these legislative and regulatory modifications on borough activities was performed and that the necessary measures were taken when required.

As part of this process, training sessions are offered to employees and records are kept on who has taken this training.

At our second visit, two laws and one regulation were analyzed to illustrate the actions taken and submitted to us. The documents in question sum up the steps taken by the unit involved to ensure knowledge of these laws and this regulation (e.g., validation of the information with the Service des affaires juridiques et de l'évaluation foncière, details on the training offered). This documentation is useful in supporting the line of thought regarding the knowledge-level evaluation of these laws and this regulation, but we believe it should be accompanied by an assessment of the risks of non-compliance given the current degree of knowledge to determine the level of risks (low, moderate or high) to which the business unit is exposed, taking into account the risk reduction measures that could have been implemented. Moreover, the information obtained from the managers we met with indicates that such documentation is not systematically produced, and monitoring compliance with laws and regulations is performed in a rather unstandardized fashion.

Overall, our examination led us to conclude that no structured and standardized method exists for law and regulation knowledge evaluation or risk level assessment. In fact, according to the information submitted, summary documentation was only produced for two laws and one regulation.

#### **MONTRÉAL-NORD BOROUGH: DIRECTION DES TRAVAUX PUBLICS**

The information collected during our audit indicates that the Direction des travaux publics uses an informal, case-by-case approach to evaluate the knowledge level of law and regulation and associated risks of non-compliance.

The people we met with stated that the effect of legislative and regulatory modifications is evaluated and that measures to comply with them are taken at the appropriate time. Moreover, analyzing the risks of non-compliance is generally performed during the analysis of a file.

In addition, the people we met with stated that they ensure knowledge of laws and regulations through, among other things:

- various training programs offered to employees, for which records are kept
- information sessions organized to inform relevant employees about the effect of new legislative and regulatory provisions on the performance of their duties

Despite the means used, we found that no documented and standardized methodology has been established to regularly evaluate law and regulation knowledge level and risks associated with non-compliance.

**CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH:  
DIRECTION DES TRAVAUX PUBLICS**

The information obtained during our audit indicates that the Direction des travaux publics uses an informal, case-by-case approach to evaluate the knowledge level of law and regulation and the risks associated with non-compliance.

Moreover, according to the information received from the people we met with, the Direction des travaux publics uses the following means to ensure law and regulation knowledge and manage the risks of non-compliance with regard to its activities:

- Training is offered to employees and records are kept to keep track of who has taken the training.
- Reference guides are created by the borough (e.g., the reference guide to contract management).

Despite the means used, we found that no documented and standardized methodology has been established to regularly evaluate the knowledge level of law and regulation and the risks associated with non-compliance.

**LE PLATEAU-MONT-ROYAL BOROUGH: DIRECTION DES TRAVAUX PUBLICS**

According to the information obtained from the people we met with, law and regulation knowledge level evaluation as well as the underlying risks is usually performed on an

informal, case-by-case approach, based on the nature of the files being handled (e.g., awarding a contract) or the legislative and regulatory developments that occur. We found that regulatory modifications in particular were discussed in the management committee.

Furthermore, the following methods are used by the Direction des travaux publics to acquire the necessary understanding of laws and regulations to reduce the risks of non-compliance:

- use of the administrative frameworks the borough has developed to facilitate application of various laws (e.g., the framework related to the awarding of contracts for professional services or the performance of work)
- staff training, for which records are kept

Despite the means used, we found that no documented and standardized methodology has been established to regularly evaluate the knowledge level and risks associated with non-compliance with the laws and regulations under its responsibility.

### **CONCLUSIONS FOR THE FOUR SELECTED BOROUGHS**

Ultimately, we found that an informal and undocumented approach is currently used to evaluate law and regulation knowledge. While it involves some positive actions, this approach nevertheless deals with non-compliance risk management through actions that are primarily case-specific rather than proactive.

Furthermore, all of the people we met with in the selected business units stated that, due to their experience and seniority, employees are very familiar with the laws and regulations that affect their activities, and they comply with them when performing these activities. Admittedly, having an experienced and competent staff provides some assurance with regard to law and regulation compliance; however, using only this approach presents certain limitations and disadvantages. In particular, staff movement may lead to a reduction to this experience over time if it is not transferred in a timely manner, thereby making the administrative unit involved more vulnerable in the event these employees leave the borough.

Therefore, we feel that the departments visited in the selected boroughs would benefit from adopting a documented and standardized methodology for greater assurance of law and regulation compliance. Without systematically documenting the knowledge level evaluation and risks associated with the laws and regulations governing its activities, the unit is deprived of a useful reference and decision-making tool in determining the corrective measures to be taken to ensure compliance with laws and regulations at all times. We also believe that it would be beneficial for these evaluations to be regularly reviewed against a directory of laws and regulations that has been properly constituted and updated. These evaluations should be filed in such a way as to be accessible to relevant managers and employees.

In our opinion, the approach currently used will make it difficult to attest that all reasonable means have been taken to ensure compliance with laws and regulations. It is therefore important to have tools to regularly document and update the knowledge level evaluation of law and regulation within the unit.

#### **3.3.2.B. Recommendations**

**To attest that all reasonable measures have been taken to ensure compliance with the laws and regulations applicable to it and to benefit from a reference and decision-making tool to determine the required corrective measures, we recommend that the Travaux publics departments of the Lachine, Montréal-Nord, Côte-des-Neiges–Notre-Dame-de-Grâce and Le Plateau-Mont-Royal boroughs:**

- **Document the evaluation of the knowledge and underlying risks associated with each of the laws and regulations pertaining to its activities.**
- **Update these evaluations regularly along with documentation of other evaluations of laws and regulations added to the directory of laws and regulations.**
- **Make these evaluations accessible to the relevant personnel.**

#### **3.3.2.C. Action Plan of the Relevant Business Unit**

- **LACHINE BOROUGH**

*[TRANSLATION] “In order to evaluate law and regulation knowledge and the risks of non-compliance, the Direction des travaux publics and the other departments will*

*perform, as needed, an initial 'rough' analysis of the risks for each of the laws and each of the regulations using the risk analysis grid. This step will enable us to give precedence to the laws and regulations that need a more thorough evaluation of the knowledge level and underlying risks associated with them.*

*Regular updates will be performed according to legislative and regulatory modification tracking and communication mechanisms.” (Planned completion: September 2012)*

- **MONTRÉAL-NORD BOROUGH**

*[TRANSLATION] “Meeting to be set up with the directors to explain the fact sheets and risk assessment worksheets as well as their individual responsibilities.*

*Each applicable law and regulation will be evaluated on the knowledge level and underlying risks associated with it. A fact sheet will be completed for each applicable law and regulation by the relevant department or division. Each sheet will describe the current mechanisms used to develop, maintain and increase staff expertise as well as the mechanisms that should be put in place to reduce the risks of errors in the application of these laws or regulations.*

*A risk analysis grid will be completed for each fact sheet.*

*Meeting to be organized with the designated authorities to explain the fact sheets and risk evaluation worksheets as well as their individual responsibilities. Submission of the directory of regulations, as well as an example of a fact sheet and risk assessment grid.*

*Fact sheets and risk analysis grids will be placed on a shared network in read-only mode, thereby making them accessible to all relevant persons. The borough secretary will be responsible for keeping the sheets and grids on the shared network up to date.*

The borough director will monitor production of the fact sheets and risk assessment grids.” **(Planned completion: June 2012)**

- **CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH**

[TRANSLATION] “A meeting will be held between the Direction des travaux publics and the Division du greffe. Each of the four divisions of Travaux publics as well as the Section de la gestion des véhicules will be convened to discuss the pertinence of each law and its application. This exercise will also be carried out with each of the borough directors. **(Planned completion: June 2012)**

To evaluate law and regulation knowledge and risks of non-compliance, the Direction des travaux publics will fill out the table in the directory as well as the risk analysis grid for each law and regulation. Documents supporting risk control evaluation will be attached to the directory and the grid. **(Planned completion: August 2012)**

Specific updates will be made to reflect legislative modifications. **(Planned completion: March and September 2012)**

A formal meeting between the Direction des travaux publics and the Division du greffe will be set up to validate the information. **(Planned completion: September 2012)**

The Division du greffe will post the complete file on the borough’s file sharing site to ensure that all managers have access to it.” **(Planned completion: September 2012)**

- **LE PLATEAU-MONT-ROYAL BOROUGH**

[TRANSLATION] “Meetings will be organized between the Direction des travaux publics and the Division des relations avec les citoyens et du greffe. Each administrative unit of the Direction des travaux publics will be convened to discuss the pertinence of each law and its application. **(Planned completion: May 2012)**

*In order to evaluate law and regulation knowledge and the risks of non-compliance, the Direction des travaux publics will fill out the risk analysis grid for every law and regulation. (Planned completion: June 2012)*

*The directory and risk analysis grids will be filled out once a year. Specific updates will be made to reflect legislative modifications. (Planned completion: September 2012)*

*The information will be validated through formal meetings between the relevant units. (Planned completion: September 2012)*

*The Division des relations avec les citoyens et du greffe will post the complete file on the borough's file sharing site to ensure that all employees have access to it." (Planned completion: September 2012)*

### **3.4. TRACKING AND COMMUNICATION MECHANISMS FOR LEGISLATIVE AND REGULATORY MODIFICATIONS**

Local government officers must ensure compliance with a considerable number of laws and regulations that are constantly changing. New laws and regulations appear, while others are replaced or become obsolete. The frequency of legislative and regulatory modifications makes the implementation of tracking and communication mechanisms essential to ensuring that staff is informed at the appropriate time and possess up-to-date information allowing them to perform their duties in an efficient and knowledgeable manner. Lack of knowledge with regard to legislative and regulatory changes can bias decision making with inaccurate information.

Given the circumstances, it is essential to ensure constant legal monitoring using various sources of information to recognize any new legal provisions or laws related to the activities of the business unit, address this information and convey it to relevant employees.

In sum, this legal monitoring is the starting point for ensuring law and regulation compliance and is an important element in reducing the risks of non-compliance. It also

serves as the basis for updating the directory of laws and regulations, reducing uncertainty and, despite its importance, reliance on experience alone.

Apart from tracking and communication mechanisms for modifications to laws and regulations that each city business unit must provide, information obtained showed that certain central departments in the municipal government also contribute to this legal monitoring through their roles and responsibilities. For example, the Service des affaires juridiques et de l'évaluation foncière provides support to the city's various business units. Among other things, it ensures tracking, analysis and dissemination of information related to major modifications to the laws and regulations affecting all city business units. It organizes information sessions upon request, provides legal advice when necessary and is occasionally part of special mandates related to the legal and regulatory fields. The Direction du greffe, which comes under the city's Direction générale, publishes the municipal by-laws adopted by city council and the urban agglomeration council.

The subsection that follows presents observations from reviewing tracking and communication mechanisms for legislative and regulatory modifications in central departments, the CSEM and selected boroughs performed as part of our audit.

### **3.4.1. CURRENT SITUATION IN CENTRAL DEPARTMENTS, THE COMMISSION DES SERVICES ÉLECTRIQUES DE MONTRÉAL AND THE BOROUGHS**

#### **3.4.1.A. Background and Findings**

Our audit led us to inquire about the existence of tracking and communication mechanisms in the selected business units for legislative and regulatory modifications or new entries.

According to the information received from the people we met with, the following are most commonly used to monitor these modifications or developments:

- subscriptions to laws and regulations
- subscriptions to software packages, newsletters, journals and specialty magazines (e.g., *Gazette officielle du Québec*)

- legal websites (e.g., Publications du Québec)
- provincial and federal government websites and the documentation distributed by government bodies (e.g., Société de l'assurance automobile du Québec [SAAQ])
- training sessions and seminars
- information from partners and city business units, including the Service du capital humain, the Direction de l'approvisionnement and the Direction du matériel roulant et des ateliers municipaux (the final two both come under the SCARM)

To inform their staff of legislative and regulatory modifications that come up, the people we met with stated that they use various means, including:

- sending information through e-mail or internal memos
- discussing during management or staff meetings
- posting modification notices on bulletin boards
- holding training sessions
- preparing and distributing guides related to the application of specific laws or regulations

In addition, the borough secretary is very often the borough resource person when it comes to handling and communicating legislative and regulatory modifications.

We found certain ambiguities with the sharing of roles and responsibilities, however, between the DSTI and the Direction des immeubles (under the SCARM) in tracking legislative and regulatory modifications of the laws and regulations governing all Direction des immeubles activities. In fact, based on the information obtained during the interviews we conducted, we found that the DSTI employee that creates the directory and fact sheets for the Direction des immeubles only tracks legislative and regulatory modifications related to his field of expertise, i.e., aspects related to the building industry. In other words, he does not monitor other laws and regulations affecting the activities of the Direction des immeubles (e.g., the *Private Security Act*, which specifically affects the activities of the Division sécurité, the *Regulation respecting the awarding of contracts for certain professional services*, the *Act respecting Occupational health and safety*, and the *Act respecting industrial accidents and occupational*

diseases). It appears that no other resource is formally designated to perform this task in the Direction des immeubles.

In addition, according to the information obtained from the people we met with in the Direction des immeubles, mechanisms to systematically communicate legislative and regulatory modifications to all relevant employees have not been introduced. According to these people, it is up to the DSTI, among others, to track modifications and inform Direction des immeubles employees in a timely manner. However, the DSTI employee that we met with stated that he does not communicate information related to legislative or regulatory modifications that he monitors. He claims to have a role of regulatory advisor and provides the necessary support to Direction des immeubles employees who request it.

We feel it would be advisable to review this sharing of roles and responsibilities so that legal monitoring is systematically applied to all laws and regulations pertaining to Direction des immeubles activities. Furthermore, it would be in the Direction des immeubles's best interest to take the necessary measures to ensure that its entire staff is kept up to date on legislative and regulatory modifications affecting the laws and regulations related to its activities.

## **CONCLUSIONS AND OBSERVATIONS FOR ALL BUSINESS UNITS VISITED**

While we observed that the measures taken to ensure follow-up and communication of legislative and regulatory modifications in most of the business units visited were largely relevant, we believe that certain improvements could be made to increase the effectiveness of legal monitoring.

In particular, our audit revealed that none of the units visited have adopted a reference tool (e.g., a guide, a manual or a quick reference tool) making it easy to learn about and find all the relevant sources of information, and even access them for legal monitoring. This reference tool could include the following information, among other things:

- detailed list of the activities under the responsibility of the various administrative units in the business unit

- location of certain background information (e.g., directory of laws and regulations, knowledge of laws and regulations evaluations and associated risks)
- list and contact information of resource persons in the business unit involved and other city business units
- list of the business unit's legal subscriptions and, if applicable, the name of the people to contact for access
- list of the various legal websites that could be checked
- list and details of newsletters and specialized journals produced by various government departments and other bodies associated with the areas of activity under the responsibility of a given administrative unit

In our opinion, the introduction of such a reference tool would help structure monitoring, making it more efficient. It would also be a useful support tool for designated personnel to track and communicate the legislative and regulatory modifications for the activities under its responsibility.

#### **3.4.1.B. Recommendations**

**To avoid ambiguity and facilitate the legal monitoring of activities under its responsibility, we recommend that the Direction des immeubles, in collaboration with the Direction des stratégies et transactions immobilières:**

- **clarify role- and responsibility-sharing for tracking legislative and regulatory modifications and take the necessary steps to ensure that legal monitoring is performed for all laws and regulations that apply to its activities**
- **introduce appropriate communication mechanisms to ensure that all relevant personnel is systematically informed of legislative and regulatory modifications that affect the activities under its responsibility**

**We recommend that the Direction de l'environnement et du développement durable, the Direction de l'eau potable, the Direction des immeubles, the Commission des services électriques de Montréal, the Travaux publics departments of the Lachine, Montréal-Nord, Côte-des-Neiges–Notre-Dame-de-Grâce and Le Plateau-Mont-Royal boroughs adopt a reference tool to help search for information on tracking legislative and regulatory modifications affecting the**

activities under their responsibility, for a more structured and functional legal monitoring process.

#### 3.4.1.C. Action Plan of the Relevant Business Unit

- **DIRECTION DES IMMEUBLES**

[TRANSLATION] “The DSTI/Direction des immeubles working committee will establish the general and specific responsibilities relating to tracking laws and regulations for each department.

*The DSTI/Direction des immeubles working committee will determine the measures to put in place to ensure that the personnel involved is informed of legislative and regulatory modifications.*

*The DSTI/Direction des immeubles working committee will identify reference tools to help search for information on tracking legislative and regulatory modifications affecting real estate activities.” (Planned completion: October 2012)*

- **DIRECTION DE L'ENVIRONNEMENT ET DU DÉVELOPPEMENT DURABLE**

[TRANSLATION] “Acquire a reference tool to help search for information on tracking legislative and regulatory modifications related to our activities:

- Develop a guide listing all relevant sources of information
- Keep the guide up to date
- Establish a specific section for the guide as part of the mandate to create a classification scheme for all DEDD documents
- Adjust computer security to make the guide files accessible to authorized personnel” (Planned completion: November 2012)

- **DIRECTION DE L'EAU POTABLE**

[TRANSLATION] “Discussions with the Service des affaires juridiques et de l'évaluation foncière on ways to ensure effective legal monitoring. (Planned completion: May 2012)

*Implementation of the measures identified.” (Planned completion: September 2012)*

- **COMMISSION DES SERVICES ÉLECTRIQUES DE MONTRÉAL**

*[TRANSLATION] “Develop a mechanism to ensure the reception and appropriate handling of legislative and regulatory modifications as well as their communication to relevant personnel.” (Planned completion: January 2012)*

- **LACHINE BOROUGH**

*[TRANSLATION] “It was agreed in September 2011 that a lawyer would be hired in early 2012 and would be paid for by the boroughs to:*

- *monitor legislative modifications relating to the activities of the boroughs*
- *monitor jurisprudence in relation to the activities of the boroughs*
- *disseminate relevant information arising from legal opinions*
- *draft legal bulletins*
- *provide training when needed” (Planned completion: December 2012)*

- **MONTRÉAL-NORD BOROUGH**

*[TRANSLATION] “The borough secretary will communicate regulatory modifications to relevant directors through the Gazette officielle du Québec, Partie II.*

*For every regulatory modification, a decision will have to be made as to follow-up, that is:*

- *no impact on work performed, no additional risk factor*
- *only the relevant employees need to be informed*
- *training is needed to implement the regulatory modifications*
- *special or additional equipment must be acquired*

*Each director will follow up appropriately on the regulatory modification, updating the risk assessment grid and notifying the borough secretary.*

*By September 1 every year, each director will have to produce and submit to the borough director a certificate of compliance with laws and regulations affecting his or her department.*

*In October of each year, the borough director will have to produce a certificate of compliance with laws and regulations for the borough.” (Planned completion: December 2012)*

- **CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH**

*[TRANSLATION] “Yearly subscription to the Gazette officielle du Québec for access to legal advice and provincial laws and regulations.*

*Post all laws and regulations that have been compiled in the directory on the borough’s file sharing site.*

*Prepare and distribute a CD-ROM containing every law and regulation affecting their area of activity to all relevant personnel in each department.*

*Post all regulations adopted by the borough on its file sharing site.” (Planned completion: September 2012)*

- **LE PLATEAU-MONT-ROYAL BOROUGH**

*[TRANSLATION] “A message will be sent to all relevant managers by the Division des relations avec les citoyens et du greffe when a legislative or regulatory modification is made. Follow-up will be carried out with the central department lawyer.*

*The list of laws and regulations and all updates will be uploaded to the shared server.” (Planned completion: December 2012)*

### 3.5. ACCOUNTABILITY WITH REGARD TO REGULATORY COMPLIANCE CERTIFICATION

#### 3.5.A. Background and Findings

Given the range of laws and regulations governing city activities, it is important that managers in charge of all the business units it contains implement the necessary measures to ensure that compliance with these laws and regulations is incorporated into the day-to-day management of the activities under their responsibility. They are ultimately responsible for action in their unit, and must therefore take the necessary steps to ensure that employees in their unit apply the laws and regulations governing their area of activity, so that they can, in turn, regularly report on this compliance.

Accordingly, as per the administrative framework adopted on October 10, 2010 (the most recent at the time of our audit), directors of the central departments, presidents of bodies such as the CSEM, as well as borough directors should report annually to the city manager by submitting a certificate of compliance with laws and regulations. This certificate must be produced by October 1 of each year for the twelve previous months (October 1 to September 30). By this certificate, the authorized person attests that, to the best of his or her knowledge, he or she has:

- taken the necessary measures to track legislative and regulatory modifications affecting the areas of expertise of his or her business unit
- taken the proper steps to inform personnel who apply the laws and regulations related to their area of activity in the course of their activities
- updated the evaluation of risks associated with non-compliance with laws and regulations

Based on our understanding, the next expected certificates of compliance since the administrative framework of October 10, 2010, should be dated October 1, 2011. However, remember that at the time of our audit, the framework on compliance with laws and regulations did not formally apply to the boroughs because the city's Direction générale had not made the framework a strategic operation.

Given that a previous version of the administrative framework on compliance with laws and regulations already existed (published in August 2007) and also provided for the production of a certificate of compliance, we wanted to make sure that the business units that we audited had in fact produced their certificate of compliance and submitted it to the Direction générale on time. Keep in mind that the August 2007 administrative framework only applied to central departments (consequently, it did not apply to the boroughs and other bodies, specifically the CSEM) and that, pursuant to this framework, the certificate of compliance had to be produced by September 1 of each year rather than October 1, as is presently the case.

Our audit revealed that the DEDD and the Direction de l'eau, which then came under the former Service des infrastructures, transport et environnement, as well as the Direction des immeubles, which then came under the former Service de la mise en valeur du territoire et du patrimoine, had duly produced the required certificate of compliance in 2008 and 2009. However, for the period of September 1, 2009 to August 31, 2010, no certificate was produced.

In conclusion, because of the number and range of laws and regulations that govern the city's areas of activity, we feel it is essential that the managers responsible for the business units follow the established mechanism. Accountability creates pressure to motivate action while providing the city administration with reasonable assurance that the proper non-compliance risk reduction measures have been taken in the city. We believe that all the necessary steps must be taken by the Direction générale to ensure that each business unit that falls within the scope of the current administrative framework regularly produce their certificate of compliance.

### **3.5.B. Recommendations**

**To provide reasonable assurance that the risks of non-compliance with laws and regulations are managed effectively, we recommend that the Direction générale take all necessary steps to ensure that business units that fall within the scope of the current administrative framework produce their certificate of compliance within the required timeframes in accordance with the directive.**

**3.5.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] “A request was sent by the city manager to the central departments on August 10, 2011, and to the boroughs and CSEM on September 8, 2011, to remind them that they are required to provide us with the said certificate within the prescribed timeframes.” (Completed)*

# V.11. Société du Havre de Montréal (Bonaventure Project)



**Vérificateur général**  
de la Ville de Montréal



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## LIST OF ACRONYMS

BMPO	Bonaventure Mixed Project Office	SHM	Société du Havre de Montréal
CEO	chief executive officer	TCEP	three-year capital expenditures program
DTP	Direction des travaux publics	WRF	work request form
NPO	non-profit organizations		

## V.11. SOCIÉTÉ DU HAVRE DE MONTRÉAL (BONAVENTURE PROJECT)

### 1. INTRODUCTION

In 2002, the Ville de Montréal (the city) mandated the Société du Havre de Montréal (SHM) to propose for the Harbourfront and surrounding spaces,<sup>1</sup> an outline of a coordinated action plan along with an implementation and funding strategy. After assessing the situation of Montréal's Harbourfront, the SHM submitted a document entitled *Montréal Harbourfront – Vision 2025* that revolved around three strategies:

- Reclaiming urban space
- Reclaiming the waterfront
- Sustainable urban development

Unveiled in 2004, *Vision 2025* generated a great deal of interest on the part of the city, the Board of Trade of Metropolitan Montréal, the Old Port of Montréal Corporation and the Parks Canada Agency. This led the three government partners (Ville de Montréal, the Government of Canada and the Government of Québec) to ask the SHM to examine the technical and financial feasibility of the major initiatives that were planned.

The SHM commissioned preliminary feasibility studies on the transformation of the Bonaventure Expressway, looking into several aspects such as infrastructure engineering, traffic management, the environment, urban planning and urban design. Other studies examined the technical feasibility of a tramway, the creation of a basin for aquatic activities and the enhancement of brownfield properties. In April 2006, based on the results of all these studies, the SHM presented a document entitled *The Montréal Harbourfront: Final Report and Recommendations*, which proposed an action plan featuring the following major elements:

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<sup>1</sup> The area in question covers 10 km<sup>2</sup> and extends over 31 km of riverbank. It is bounded to the west by the Champlain Bridge and to the east by a line drawn just beyond the Jacques-Cartier Bridge. Its northern limit runs along rue Notre-Dame, then rue Viger, as far as the Saint-Gabriel Locks. To the south, the area borders on the river and takes in Sainte-Hélène and Notre-Dame islands.

- Bonaventure Expressway
- Harbourfront tramway
- Recreation, tourism and cultural activities
- Brownfield properties
- Blue and green spaces
- Soil management

From 2003 to 2006, a period characterized mainly by the completion of opportunity and feasibility studies, the SHM received financial support from the three levels of government totalling \$4,008,870, i.e., \$1,310,122 in funds and loans of services and staff from the city, \$1,418,748 from the Government of Canada and \$1,280,000 from the Government of Québec.

The reconfiguration of the Bonaventure Expressway is the cornerstone of the Montréal Harbourfront *Vision 2025*. This project, which consists of reclaiming the riverbanks and mending the urban fabric, is divided into three phases:

- Phase 1: Expansion of downtown, from rue Notre-Dame to rue Brennan
- Phase 2: Bonaventure Expressway relocation between the Victoria and Champlain bridges
- Phase 3: Bonaventure Expressway transformation between the Victoria Bridge and rue Brennan

This large-scale project will re-shape the Bonaventure Expressway over the next 20 years and involve several partners, both public and private. While Phases 2 and 3 are the responsibility of the Canadian government, Phase 1 is under the city's jurisdiction.

When the final report was submitted in 2006 and accepted by the city, the SHM was assigned several mandates under agreements reached with the city:

- 2007: An agreement worth \$7,173,156 (taxes included) to complete Phase 1 preliminary and detailed design of Bonaventure Expressway transformation from rue Saint-Jacques to rue Brennan.

- 2008: An agreement in the amount of \$5,643,750 (taxes included) to prepare final plans and specifications for Phase 1 of Bonaventure Expressway transformation between rue Saint-Jacques and rue Brennan.
- 2009: An agreement worth \$2,596,630 (taxes included) to prepare final plans and specifications for the restricted corridor to public transit along rue Dalhousie.

In June 2009, the SHM submitted the Phase 1 preliminary and detailed design report of Bonaventure Expressway transformation to the city. The Office de consultation publique de Montréal submitted its own report to the executive committee in April 2010 following public consultation of the design report. These consultations gave the SHM the opportunity to make changes by incorporating the concerns raised. The revised final report, entitled “Quartier Bonaventure,” was approved by a resolution of the executive committee on August 11, 2010. The SHM began work in 2009 to prepare the final plans and specifications for Phase 1 of Bonaventure Expressway transformation between rue Saint-Jacques and rue Brennan, including the Dalhousie corridor. Although work was halted during the consultations, it started up again in 2010.

The three-year capital expenditures program (TCEP) for 2012–2014 and subsequent years made provisions for an investment of \$159,165,000. Added to this would be an amount of \$16,888,000 that was allocated between 2007 and 2011 for the preliminary and detailed design and the production of final plans and specifications.

Up until 2010, the SHM acted as the city’s project manager within the framework of its mandates: it was responsible for all stages of the project, including the design, issuing call for tenders, awarding contracts, providing oversight and making sure work is completed. In 2011, the city chose to ensure the completion of Phase 1 of Bonaventure Expressway transformation itself and to be responsible for all stages, such as issuing the call for tenders, awarding contracts, validating plans and specifications, and completing the work in compliance with its *Cadre de gouvernance des projets et des programmes de gestion d’actifs municipaux* and its December 2010 contract management policy.

To ensure continuity in the completion of Phase 1 of Bonaventure Expressway transformation, and harmonization with subsequent phases, and benefit from the knowledge the SHM acquired about the overall project (the three phases), the city retained the professional services of the SHM in 2011 under a five-year agreement (2011–2015) totalling \$10,178,301 to:

- Set up a mixed project office jointly with the city.
- Finish preparing the final plans and specifications for the reconfiguration between rue Saint-Jacques and rue Brennan and those of the Dalhousie corridor.
- Provide various professional services to operate the mixed project office.
- Take concrete action and implement *Vision 2025* to develop the Montréal Harbourfront. This aspect of the agreement falls especially under to the SHM.

## 2. AUDIT SCOPE

The goal of our audit was to ensure that the funds allocated by the city to the Bonaventure Mixed Project Office (BMPO) in terms of the mandate conferred upon it were managed in an accountable and transparent manner, in accordance with the city's governance framework and contract policy, and that they helped achieve the results expected by the city.

Our audit consisted mainly of a detailed review of the documentation related to Phase 1 of Bonaventure Expressway transformation and BMPO operations.

To place Phase 1 of the project in its historical context, we examined a series of documents produced by the SHM, in particular the Montréal Harbourfront Final Report and Recommendations, the agreements reached between the SHM and the city to produce *Vision 2025*, the preliminary and detailed design report and the final plans and specifications for completion of Phase 1.

### 3. FINDINGS, RECOMMENDATIONS AND ACTION PLANS

#### 3.1. SOCIÉTÉ DU HAVRE DE MONTRÉAL

Created in October 2002, the SHM is a non-profit organization (NPO) born in the wake of the 2002 Montréal Summit. Its mandate is to “*propose, for the harbourfront and its surrounding urban spaces, the main features of a coordinated action plan, along with an implementation and funding strategy.*” The SHM is autonomous and has a board of directors with city representation on an ever-present but fluctuating basis. The SHM has a small team of project managers and consultants who conduct research and analyses under the direction of a president and chief executive officer (CEO).

The motivation behind the creation of the SHM was to benefit from grants from the two governments (provincial and federal) to complete the first exploratory work. It did indeed receive financial support at the start from the three levels of government (the city, the Government of Québec and the Government of Canada), as shown in Table 1.

**Table 1—Expenditures by the SHM between 2003 and 2011**

Period	Government of Canada	Government of Québec	Ville de Montréal	Total
2003–2006 Opportunity and Feasibility Studies	\$1,418,748 35%	\$1,280,000 32%	\$1,310,122 33%	\$4,008,870
2007–2010 Preliminary and detailed design – plans and specifications	\$257,090 3%	\$520,000 5%	\$9,402,795 92%	\$10,179,885
2011–2015 Completion of Phase 1: 2011 Contribution	– 0%	– 0%	\$2,065,498 100%	\$2,065,498
<b>Total contribution of partners</b>	<b>\$1,675,838</b> <b>10%</b>	<b>\$1,800,000</b> <b>11%</b>	<b>\$12,778,415</b> <b>79%</b>	<b>\$16,254,253</b>

Source: City decision-making summary and SHM financial statements.

City and government contributions vary in size depending on the SHM development period. From 2003 to 2006, the three levels of government shared an equal role in funding the SHM. The city’s contribution represented approximately 33% of the total funding of \$4,008,870, or \$1,310,122 in funds and staff loans. This period corresponded

to activities related to the Bonaventure Expressway opportunity and feasibility studies and was finalized by the completion of the studies, in particular *Montréal Harbourfront – Assessment of the Situation*, *Montréal Harbourfront – Vision 2025* and *Bonaventure Expressway – Vision 2025*. Subsequently, the city's contribution rose to 92%, or \$9,402,795 and, finally in 2011 when work on the Bonaventure Expressway transformation began, the city was the SHM's sole source of income.

From 2007 to 2010, the city, as the majority SHM partner, signed six agreements<sup>2</sup> totalling \$15,634,905. These included three major agreements related to the preliminary and detailed design study (\$7,173,156), the production of final plans and specifications for the area between rue Brennan and rue Saint-Jacques (\$5,643,750), and the production of plans and specifications for the Dalhousie corridor (\$2,596,630). This period corresponded to activities for the preliminary and detailed design studies of Phase 1 of Bonaventure Expressway transformation and the production of plans and specifications, and was finalized with the tabling of the preliminary and detailed design report and the start of production of plans and specifications.

In 2011, the city signed a five-year agreement with the SHM in the amount of \$10,178,302 for work on Phase 1 of Bonaventure Expressway transformation. The breakdown is as follows:

- \$4,303,688: professional services to run the BMPO from 2011 to 2015
- \$5,350,561: second and last instalment for the production of final plans and specifications of Bonaventure Expressway transformation between rue Brennan and rue Saint-Jacques
- \$500,000: study to update Vision 2025 for the development of Montréal Harbourfront
- \$24,053: QST adjustment

In all, the SHM reached agreements with the city totalling \$27,123,306 from 2003 to 2011. Details of these contributions are presented in Appendix 4.1.

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<sup>2</sup> The agreements between the city and the SHM were signed in accordance with section 573.3, subsection 2.1 of the *Cities and Towns Act*, which allows a city to entrust professional services to an NPO without having to issue a call for tenders.

### 3.1.1. SOCIÉTÉ DU HAVRE DE MONTRÉAL CONTRACT AWARD PROCESS

#### 3.1.1.A. Background and Findings

To examine the SHM's governance for awarding contracts, we used the information provided by them to analyze how they had awarded contracts from 2007 to 2011 and briefly examined the process's compliance with the SHM's contract award policy. We then compared this information to the city's contract award process.

Table 2 presents statistics on SHM methods used to award contracts from 2007 to 2011.

**Table 2—Methods of Awarding Contracts Used by the SHM  
From 2007 to 2011**

Year and headings		Awarding method				
		Private contract	Invitation	Public call for tenders	Information unavailable <sup>1</sup>	Total
Mandates – Preliminary and detailed design	<b>2007</b>					
	Number of mandates	10	1	0	4	15
	Total budget	\$450,159	\$584,371	–	\$694,153	\$1,728,683
	Actual expenditures	\$445,269	\$508,032	–	\$683,131	\$1,636,432
	<b>2008</b>					
	Number of mandates	25	8	2	1	36
	Total budget	\$893,703	\$465,013	\$1,783,921	\$49,000	\$3,191,637
	Actual expenditures	\$873,714	\$465,013	\$1,783,689	\$48,980	\$3,171,396
	<b>2007 and 2008</b>					
Number of mandates	35	9	2	5	51	
Total budget	\$1,343,862	\$1,049,384	\$1,783,921	\$743,153	\$4,920,320	
Actual expenditures	\$1,318,983	\$973,045	\$1,783,689	\$732,111	\$4,807,828	
Mandates – plans and specifications	<b>2009</b>					
	Number of mandates	10	0	3	1	14
	Total budget	\$365,115	–	\$9,651,847	\$4,430	\$10,021,392
	Actual expenditures	\$95,796	–	\$3,372,830	\$4,430	\$3,473,056
	<b>2010</b>					
	Number of mandates	7	6	0	6	19
	Total budget	\$132,368	\$294,622	–	\$51,178	\$478,168
	Actual expenditures	\$104,561	\$117,823	–	\$51,178	\$273,562
	<b>2011</b>					
	Number of mandates	1	5	0	8	14
	Total budget	\$30,000	\$98,734	–	\$235,543	\$364,277
	Actual expenditures	\$12,000	\$46,576	–	\$46,123	\$104,699
<b>2009–2010–2011</b>						
Number of mandates	18	11	3	15	47	
Total budget	\$527,483	\$393,356	\$9,651,847	\$291,151	\$10,863,837	
Actual expenditures	\$212,357	\$164,399	\$3,372,830	\$101,731	\$3,851,317	
Total 2007–2011	Number of mandates	53	20	5	20	98
	% type of awarding	54%	20%	5%	20%	100%
	Total budget	\$1,871,345	\$1,442,740	\$11,435,768	\$1,034,304	\$15,784,157
	% total budget	12%	9%	72%	7%	100%
	Actual expenditures	\$1,531,340	\$1,137,444	\$5,156,519	\$833,842	\$8,659,145

<sup>1</sup> The documentation supplied by the SHM did not indicate the method used for awarding these contracts.

Source: SHM.

According to our analysis of the information obtained on contracts awarded from 2007 to 2011, we note that the SHM awarded 98 contracts totalling \$15,784,157. These contracts were awarded on the basis of the following methods:

- **Private contract:** 53 of the 98 contracts (54%) for a total of \$1,871,345 (12% of the total value of the contracts).
- **Invitation:** 20 of the 98 contracts (20%) for a total of \$1,442,740 (9% of the total value of the contracts).
- **Public call for tenders:** 5 of the 98 contracts (5%) for a total of \$11,435,768 (72% of the total value of the contracts).
- **Information about the method of awarding unavailable:** 20 of the 98 contracts (20%) for a total of \$1,034,304 (7% of the total value of the contracts). Of these 20 contracts, three involved the city in the role of service provider, for a total of \$526 305 (51% of the total in this category). The 17 other contracts represented a value that varied from \$580 to \$49,000.

Tables 3 and 4 present the parameters for delegation of authority and the contract awarding policy at the SHM and at the city.

**Table 3—Comparison of the Delegation of Authority at the City (Central Departments) and the SHM**

Ville de Montréal			SHM		
Position	Execution of work	Professional services	Position	Execution of work	Professional services
City manager	\$100,000	<b>\$50,000</b>	President and CEO	<b>\$50,000</b>	<b>\$50,000</b>
Level A officer	<b>\$50,000</b>	\$25,000	Project manager	<b>\$15,000</b>	<b>\$15,000</b>
Level B officer	\$25,000	<b>\$15,000</b>			
Level C officer	<b>\$15,000</b>	\$5,000			
Level D officer	\$10,000				
Level E officer	\$1,000				

**Table 4—Comparison of the Methods for Awarding Contracts at the City and SHM**

Ville de Montréal			SHM			
Amount	Execution of work	Professional services	Amount	Execution of work	Amount	Professional services
≤\$24,999	Private contract		≤\$9,999	Mutual agreement	≤\$49,999	Private contract with the approval of an administrator other than the president and CEO
			\$10,000 to \$24,999	Written invitation to two or more suppliers		
\$25,000 to \$99,999	Call for tenders by invitation to a minimum of two suppliers The city favours an invitation to five firms		\$25,000 to \$99,999	Written invitation to three or more suppliers	\$50,000 to \$99,999	Written invitation to three or more suppliers, or public call for tenders
≥\$100,000	Public call for tenders		≥\$100,000	Written invitation to four or more suppliers, or public call for tenders	≥\$100,000	Written invitation to four or more suppliers, or public call for tenders

Following this comparative analysis, we concluded that the authority delegated by the SHM to its president and CEO, in the case of execution of work, was the same spending limit (\$50,000) as the city allows a level A officer, i.e., the equivalent of an associate city manager or a senior manager. As for the spending limit (\$15,000) of the SHM’s project manager, it was the same as that of a level C officer at the city, i.e., a section head.

For professional services contracts, the SHM authorized the same signing limit (\$50,000) to its president and CEO as the city allows the city manager. For the SHM’s project manager, the signing limit (\$15,000) is the same as that allowed a level B officer at the city, i.e., a division head.

The method for awarding contracts applied at the SHM was as follows:

- For execution of work contracts, awarding methods varied based on four limit levels.
- For professional services contracts, awarding methods varied based on three limit levels.

The method for awarding contracts in effect at the city complies with the *Cities and Town Act* (section 573). In general, it revolves around three levels of limits and applies

to all contracts for the execution of work and for the supply of professional services in specific fields (architect, surveyor, certified accountant and engineer).

Based on the information provided by the SHM and our analysis of the methods for awarding contracts under SHM policy and the city's method, we concluded that the 98 contracts awarded, regardless of the method used, with the exception of 13 contracts, or 13%, were by written solicitation in compliance with the SHM's contract award policy.

As for contracts awarded by invitation or through public call for tenders, the SHM complied, in all cases, with its contract award policy in regard to the number of suppliers invited and the amount to be respected.

In the case of contracts awarded by invitation or through public call for tenders, with the exception of those for which the city was the intended service supplier, the SHM formed a selection committee that included city staff.

The SHM's method for awarding all contracts above \$100,000 is to go to a public call for tenders or to proceed by invitation requesting a minimum of four suppliers. This same choice exists for professional services contracts of \$50,000 or more, with the difference that fewer suppliers are solicited, i.e., three suppliers.

The method the city applies allows to negotiate private contracts if the amount is at or under \$24,999, regardless of their nature (execution of work or professional services). However it does not offer the possibility of choosing between a public call for tenders or proceeding by invitation for contracts above \$100,000, regardless of their nature.

To speed up the decision-making, the SHM's method is less restrictive than that of the city. In fact, it gives to the manager the option to proceed to a public call for tenders or not, something that the city does not allow. This flexibility increases the risk of eventually influencing the choice of firms versus a public call for tenders.

In the current context of scrutinizing the contract award process, the city has tightened its rules for awarding contracts and has implemented a transparent governance framework. As it is the SHM's only "client" or funder and has chosen to make the SHM a privileged partner for the subsequent phases listed in *Vision 2025*, it would be appropriate for the SHM to harmonize its method of awarding contracts with that of the city.

#### **3.1.1.B. Recommendations**

**We recommend that the Société du Havre de Montréal, given the issues related to the governance of major projects and the current context of implementing the Quartier Bonaventure project, look into the possibility of harmonizing its policy for awarding contracts with that of the city in the spirit of a long-term mixed partnership.**

#### **3.1.1.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] "Submit an amendment to SHM's policy for awarding contracts at a future meeting of the SHM's Board of Directors with the goal of harmonizing to a greater extent this policy with that of the city." (Planned completion: September 2012)*

### **3.1.2. FOLLOW-UP OF THE COMPLETION OF CONTRACTS AWARDED BY THE SOCIÉTÉ DU HAVRE DE MONTRÉAL**

#### **3.1.2.A. Background and Findings**

Using the expectations defined in the agreements signed between the city and the SHM as our basis, we set out to determine whether the latter had fulfilled its obligations to provide the requested products and services as scheduled. To do this, we examined the status of expected results for contracts awarded by the SHM based on information obtained from the SHM along with its quarterly reports.

Table 5 presents all the contracts awarded by the SHM from 2007 to 2011, on the basis of their status as of December 19, 2011.

**Table 5—Status of the Contracts Awarded by the SHM from 2007 to 2011**

Years and headings	Status of awarded contracts*				
	Completed	TBD	On hold	Under way	Total
<b>2007–2008</b>					
<b>Preliminary and detailed design</b>					
Number of mandates	51	0	0	0	51
Total budget	\$4,920,320	–	–	–	\$4,920,320
Actual expenditure	\$4,807,828	–	–	–	\$4,807,828
<b>2009–2011</b>					
<b>Final plans and specifications</b>					
Number of mandates	30	4	2	11	47
Total budget	\$397,358	\$449,243	\$128,239	\$9,888,997	\$10,863,837
Actual expenditure	\$373,774	–	\$4,625	\$3,472,918	\$3,851,317
<b>Total from 2007 to 2011</b>					
Number of mandates	81	4	2	11	98
Total budget	\$5,317,678	\$449,243	\$128,239	\$9,888,997	\$15,784,157
% total budget	33.7%	2.8%	0.8%	62.7%	100.0%
Actual expenditure	\$5,181,602	–	\$4,625	\$3,472,918	\$8,659,145
Variance or remaining balance	\$136,076	\$449,243	\$123,614	\$6,416,079	\$7,125,012

\* Definition of statuses:

- **Completed:** project finished
- **TBD (to be determined):** project relating mainly to contracts that are completed by the city's business units.
- **On hold:** project awaiting a decision to proceed.
- **Under way:** project on its way to completion.

Source: SHM.

Based on our analysis of the contracts awarded by SHM from 2007 to 2011 and the 2008 and 2009 follow-up reports, we were able to conclude that 81 contracts were completed for a total of \$5,181,602 and 11 contracts are on-going.

Among the contracts under way, three were major, totalling \$9,651,847, or 61.1% of the total budget. These contracts were specifically intended to prepare final plans and specifications, the reconfiguration work between rue Brennan and rue Saint-Jacques and the Dalhousie corridor and for technical assistance for project management and road engineering.

According to an earlier agreement, the respective delivery dates for the final plans and specifications were September 9, 2009, for rue Brennan and rue Saint-Jacques, and March 31, 2011 for the Dalhousie corridor. These documents were to comply with the

city's standards<sup>3</sup> regarding presentation of drawings, plans and specifications. Their final production was delayed to include the results of public consultations on the preliminary and detailed design. Consequently, the SHM failed to deliver the final plans and specifications within the dates set out in the agreements.

As shown in Table 6, the production of plans and specifications in the 2011 agreement was spread out over 2011, 2012 and 2013.

**Table 6—Planned Budget for the Production of Plans and Specifications**

	Total	Expenditure	Forecast		
		2008–2010	2011	2012	2013
2008 agreement and adjustment <sup>1</sup>	\$10,994,311	\$3,950,625	\$3,189,900	\$2,759,400	\$1,094,386
2009 agreement	\$2,596,630	\$553,797	\$1,500,000	\$542,833	
<b>Total</b>	<b>\$13,590,941</b>	<b>\$4,504,422</b>	<b>\$4,689,900</b>	<b>\$3,302,233</b>	<b>\$1,094,386</b>
			<b>\$9,086,519</b>		

<sup>1</sup> Original agreement: \$5,000,000. Adjustment of \$4,651,847, for a total of \$9,651,847 (before taxes), i.e., \$10,994,311 with taxes.

We were unable to determine all the work completed by SHM for the amounts paid from 2008 to 2010 (\$4,504,422).

Considering the following elements:

- resumption of production of the final plans and specifications for the Dalhousie corridor and the reconfiguration work between rue Brennan and rue Saint-Jacques in 2011
- changes to the remaining amount for completing the preparation of these final plans and specifications
- payments received for work completed as part of the production of plans and specifications

it is important for the Direction générale to precisely inventory the work completed and what remains to be done to finish preparing the plans and specifications under the 2008 and 2009 agreements.

<sup>3</sup> The city's standards required the production of specifications and standardized drawings that comply with the MicroStation computer system.

### 3.1.2.B. Recommendations

We recommend that the Direction générale formally establish an inventory, including the costs of work completed by the Société du Havre de Montréal under agreements signed in 2008 and 2009 covering the final plans and specifications of the reconfiguration work between rue Brennan and rue Saint-Jacques, and the Dalhousie corridor.

### 3.1.2.C. Action Plan of the Relevant Business Unit

[TRANSLATION] “Require that an inventory of work completed by the SHM under the agreements signed in 2008 and 2009 be integrated into the accountability report that is produced. This inventory should include a section on the costs of the work.” (**Planned completion: May 2012**)

## 3.2. BONAVENTURE MIXED PROJECT OFFICE

The city and the SHM will work through the BMPO to complete Phase 1 of Bonaventure Expressway transformation. The 2011 agreement provides for the city and the SHM to jointly set up this project office and for the SHM to oversee its operations in exchange for annual professional fees of \$750,000 for the duration of the five-year agreement. The agreement also sets out the following elements for the governance and management of Phase 1:

- formation of a management committee made up of two representatives designated by the city manager and one SHM representative
- co-supervision of the BMPO by a city administrative sponsor and an SHM administrative sponsor

Finally, the work planned for Phase 1 will be carried out according to the standards and practices that apply in the city, in compliance with the *Cities and Towns Act*, and the acts arising from it, and with the *Charter of Ville de Montréal* and the *Cadre de gouvernance des projets et des programmes de gestion d'actifs municipaux*.

### 3.2.1. ORGANIZATIONAL AND OPERATIONAL STRUCTURE

#### 3.2.1.A. Background and Findings

The BMPO was established under the 2011 agreement. Its organizational chart appears in Appendix 4.2. As provided for under the agreement, this office consists of a management committee made up of a manager from the Direction générale and the manager of the Direction des travaux publics (DTP) acting on behalf of the city, and the president and CEO of SHM, acting on the latter's behalf. The BMPO is managed jointly by two joint managers, i.e., a DTP engineer and an SHM project manager.

The BMPO reports to the management committee, which in turn reports to the associate city manager in charge of the Service du développement et des opérations. The BMPO has set up a technical management committee, made up essentially of two members of the management committee, two joint managers and a professional from the SHM.

The BMPO determines what it needs overall for its activities and projects. It then draws on SHM resources within the budget allocated under the agreement (\$750,000 /year) and the resources of the DTP when its expertise is required, as well as on external firms to execute the work. The acquisition of other resources must be submitted to the city's decision-making and supply process.

The BMPO's operating budget comes mainly from transfers of funds for loans of city resources and from budgets provided under the agreement for the use of SHM resources. Infrastructure and other work executed by the DTP or external firms is funded by the city's TCEP.

While the responsibilities of the key people assigned to the BMPO to complete Phase 1 were described in Appendices B and C of the agreement, the BMPO has detailed and added descriptions of tasks for all the anticipated responsibilities and activities. A procedures manual is currently being prepared.

After examining this document, we concluded the two joint managers complement each other when sharing responsibilities and tasks in the BMPO, mainly in activities with internal and external partners and designated staff under their direction.

This complementarity is not limited. In fact, the co-supervisors can replace each other, with the exception of the following responsibilities that they assume on behalf of their original employer:

- City representative: responsibility for the project on behalf of the city, from the initial study stages up to complete delivery of the project and role of planning officer for the DTP.
- SHM representative: liaison between the BMPO and the SHM on matters under the responsibility of the SHM.

The procedures manual has not been approved by the management committee. Some elements of the manual, in particular the heading related to project management and the appendix describing roles and responsibilities, require significant modifications:

- Description of the governance of the BMPO, including the current decision-making process (Direction générale associée, management committee, project co-supervisors, and the technical management committee acting in a technical assistance capacity).
- Update of cost estimates for Phase 1 to keep track of modifications made to the preliminary and detailed design. The estimates cited in the manual date from the preliminary and detailed design report submitted in 2008.
- Update of project organizational charts.
- Determination that incumbents (joint managers) correspond to the job descriptions of the project team.
- Determination that incumbents (project managers, graphic artist, secretary, documentation manager) correspond to the job descriptions of the support team.

#### **3.2.1.B. Recommendations**

**We recommend that the Direction générale associée – Service du développement et des opérations ensure that the Bonaventure Mixed Project Office makes the necessary changes to the procedures manual so that it accurately reflects the**

current structure and operations, and that it submit this manual for approval to the management committee.

#### 3.2.1.C. Action Plan of the Relevant Business Unit

[TRANSLATION] “Ask the joint managers of the BMPO to:

- *make the necessary changes to the procedures manual so that it accurately reflects the current structure and operations*
- *submit this manual for approval to the management committee.” (Planned completion: August 2012)*

### 3.2.2. PROJECT GOVERNANCE

#### 3.2.2.A. Background and Findings

We noted that representation of the SHM and city on the management committee can be explained by the fact that this committee must oversee project management by taking into account the instructions and strategic orientations of the whole project as it relates to other projects under way and essentially to the subsequent phases of Vision 2025.

On the other hand, the dual nature of the project coordination raises questions. The fact is that we are faced with two entities that are “associated or in partnership” to complete Phase 1 but that have different statuses: the city is the client that ensures funding and the SHM executes a mandate.

Previous organizational charts, in which the SHM assumed completion of the mandates, did not represent this dual nature of co-supervision even if the city’s major resources were involved or used in a supporting role.

This leads us to ask the following questions:

- Since, according to the information obtained, the city’s representative assumes the role of joint manager with full responsibility for Phase 1,<sup>4</sup> do we really need two joint managers?

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<sup>4</sup> This responsibility is clearly defined in the DTP’s initiatives following decision-making summary 1101009003.

- In the event of a conflict situation, might this model confuse the decision-making process, e.g., different understanding of mutual agreements, choice of operating procedures or management or support of resources under the SHM's responsibility?
- Does this model make it possible to evaluate the contribution of the SHM to BMPO operations, according to the expectations defined in the agreement with the city?

This project coordination model is generally found in cases where two entities share the project's risks within a partnership, which is not the case for the BMPO.

#### **3.2.2.B. Recommendations**

**We recommend that the Direction générale associée – Service du développement et des opérations ensure that all coordination measures have been planned in order to mitigate any eventual conflicts that could compromise the smooth functioning of the BMPO.**

#### **3.2.2.C. Action Plan of the Relevant Business Unit**

*[TRANSLATION] "Continue to give the management committee (two-thirds of which is made up of city representatives) the power to make final decisions in the case of a diverging opinion between the city and the SHM." (Completed)*

### **3.2.3. PLANNING, EXECUTION, MONITORING AND CONTROL**

#### **3.2.3.A. Background and Findings**

Phase 1 work for transforming the Bonaventure Expressway is spread over five years. The BMPO has planned the work to be executed and completed in each year. All activities and projects have been grouped into work items to facilitate planning and scheduling. Schedules were prepared based on the level of action required:

- General five-year timeline
- More precise annual schedule that includes items to be completed every year
- A schedule for individual work items that corresponds to the schedule in the contractor's bid for the call for tenders to allow daily monitoring of the work

For information purposes, the number of work items per year for Phase 1 is:

- 2011: 3 items
- 2012: 7 items
- 2013: 9 items
- 2014: 11 items
- 2015: 10 items

Based on this plan, the BMPO chooses the appropriate contractor to execute the work items or entrusts them to the DTP. The BMPO calls on the services of the DTP to complete Phase 1 projects using work request forms (WRF), which describe in detail the services required. The DTP acts as an “engineering firm” for the BMPO, as it does for the other business units of the city that are, in fact, its “clients.” The DTP carries out the projects entrusted exclusively to it when the funding or budget accompanies them. The projects are thus funded from the same TCEP envelope specified for Phase 1.

At its weekly meeting, the BMPO technical management committee monitors various projects and work items, addresses the project’s technical questions, follows up on planning, schedules and costs and determines the progress of the project. The management committee then monitors progress, validates and approves requests for payment and provides direction for the work at its weekly meeting.

Monitoring the work carried out by the DTP is the responsibility of the business officer, who monitors the WRFs within the context of the service agreement reached with the BMPO. A report documents each WRF given to the DTP. Accountability for each of the WRFs under way is submitted by the DTP via a quarterly report showing the evolution of cost commitments and the progress of the WRFs.

Table 7 shows Phase 1 monitoring, based on the executing bodies and results set out in the 2011 agreement.

**Table 7—Main Phase 1 Project Controls**

BMPO control bodies	Executing body	2011 agreement component	Control process
BMPO management committee  Technical management committee  (SHM and the city)	SHM	Plans and specifications for contracts prior to 2010	<ul style="list-style-type: none"> <li>• Billing by firms</li> <li>• Approval by the SHM</li> <li>• Payment by the SHM</li> <li>• SHM accountability based on the 2008 and 2009 agreements (\$5.6 M and \$2.6 M)</li> </ul>
		Plans and specifications as of March 2011	<ul style="list-style-type: none"> <li>• Billing by firms</li> <li>• Approval by the SHM</li> <li>• Technical approval by the DTP</li> <li>• Payment by the SHM</li> <li>• SHM accountability based on the 2011 agreement</li> </ul>
	SHM	BMPO operations (\$750,000)	<ul style="list-style-type: none"> <li>• Billing by the SHM</li> <li>• Approval by the city</li> <li>• Payment by the city</li> <li>• SHM accountability</li> </ul>
	DTP	Mandates given as per WRFs (TCEP funding)	<ul style="list-style-type: none"> <li>• Billing by firms</li> <li>• Approval by the DTP</li> <li>• DTP accountability report</li> <li>• Approval by the BMPO</li> <li>• Entry in the TCEP</li> </ul>
	External suppliers	Work assigned by the BMPO (complementary studies and others)	<ul style="list-style-type: none"> <li>• Billing by firms</li> <li>• Approval by the BMPO</li> <li>• Payment by the BMPO</li> <li>• BMPO accountability</li> </ul>

On the basis of information obtained during out meetings with staff from the BMPO and DTP, as well as a brief review of the processes and documentation supporting the completion of Phase 1, we concluded that the BMPO, which is in its first year of operation, is implementing control processes (see Table 7) to comply with those of the city, as well as interim reports to monitor the progress of projects and work items.

As part of the work that it carries out for the BMPO, the DTP provides validation and technical control of compliance with plans and specifications, as well as staff supervision and support to execute the work. The DTP is currently changing the control processes and documentation that will be used to monitor projects assigned by the BMPO.

The BMPO also produces a score card that was being prepared at the time of our audit. The score card shows the progress for each of the projects and work items, based on

the project stages. The example of the score card that we looked at indicated the stages that had been completed by adding a completion date to know where the project was in the decision-making and supply process (approval date for a call for tenders, date of receipt of the executive committee and municipal and borough council resolutions, issue date for the call for tenders, date for awarding the contract, and start date for the work).

The reports produced to date are at the preparation stage and focus on monitoring actual costs versus allocated budgets. These reports deserve improvement and the incorporation of indicators tied to schedules and compliance with standards and agreements (e.g., meeting schedules, flagging and explaining delays and proposing corrective actions).

#### **3.2.3.B. Recommendations**

**We recommend that the Direction générale associée – Service du développement et des opérations ensure that the Bonaventure Mixed Project Office completes the design and implementation of project control and monitoring processes and prepare reports that incorporate efficiency indicators to support them.**

**We also recommend that the Direction des travaux publics complete the design and implementation of project control and monitoring processes and prepare reports that incorporate efficiency indicators to support them.**

#### **3.2.3.C. Action Plan of the Relevant Business Unit**

- **DIRECTION GÉNÉRALE ASSOCIÉE – SERVICE DU DÉVELOPPEMENT ET DES OPÉRATIONS**

*[TRANSLATION] “Ask the BMPO joint managers to:*

- *finalize project control and monitoring processes as well as reports that incorporate efficiency indicators to support them*
- *submit for approval these processes and reports to the management committee.” (Planned completion: June 2012)*

- **DIRECTION DES TRAVAUX PUBLICS**

*[TRANSLATION] “Updating and implementing project control and monitoring processes will be carried out, among other ways, by hiring business managers who*

*will be responsible for project planning and monitoring from the preliminary stage to the final completion of the work (accountability). (Planned completion: March 2013)*

*Updating the management reports is under way. These reports will provide indicators of actual dates versus targeted dates and allow for strict monitoring. (Planned completion: March 2013)*

*A management report is already in place; however, several more improvements, including performance indicators, will be integrated into the report during 2012 and 2013. This is an ongoing process.” (Planned completion: March 2013)*

### 3.3. ACCOUNTABILITY

#### 3.3.A. Background and Findings

Under the 2011 agreement, accountability for Phase 1 for transforming the Bonaventure Expressway would include:

- Application of accountability methods specified in prior approved agreements with the SHM for producing final plans and specifications between rue Brennan and rue Saint-Jacques and the Dalhousie corridor.
- Production of an annual report by the SHM, under its new expanded mandate,<sup>5</sup> giving the status of work completed and the progress of projects initiated, as well as a copy of its audited financial statements. The first report will be submitted in March 2012.
- Completion of Phase 1 by the BMPO to comply with the city’s standards and practices and the *Cadre de gouvernance des projets et des programmes de gestion d’actifs municipaux*.

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<sup>5</sup> At the time of its creation, the SHM’s mandate was to propose the outline of a coordinated plan for the Harbourfront and surrounding urban spaces, along with an implementation and funding strategy. Since 2011, the contribution of the SHM to BMPO operations, updating Montréal Harbourfront’s Vision 2025, participation in defining the urban redevelopment concept for the extended Bonaventure sector, application of the urban project implementation strategy and promotion of investments in the “Quartier Bonaventure” have been added.

Including the SHM's prior and future obligations in the 2011 agreement allows the city to have control over Phase 1 projects and other actions planned as part of the SHM's expanded mandate.

We noted that the SHM is in the process of preparing an annual accountability report that will be submitted in March 2012, in accordance with the 2011 agreement.

In our opinion, this report should, at the very minimum:

- Review activity progress and results from previous years, especially for plans and specifications previously produced and those of the current year (2011).
- Report on the progress of activities completed during 2011 under the expanded mandate.
- Establish the progress of projects in relation to schedules and costs.
- Indicate the next steps and situate them in the overall planning of Phase 1.
- Indicate the major strategic decisions that the administration must take.

The BMPO must also produce an overall accountability report integrating information from the SHM report and the DTP accountability report for the work that it executes for the BMPO as well as information from the other business units that carry out projects for the BMPO (Service de l'eau, Commission des services électriques de Montréal, and others), if applicable.

### **3.3.B. Recommendations**

**We recommend that the Direction générale ensure that prior accountability obligations have been met:**

- **Report quarterly on the progress of the mandates.**
- **Comply with city standards for presenting drawings, plans and specifications and all other required documents.**

**We also recommend that the Direction générale ensure that the 2012 report meets the expectations expressed in the 2011 agreement:**

- **Report on the status of work completed under the expanded mandate.**
- **Submit Société du Havre de Montréal audited financial reports.**

### 3.3.C. Action Plan of the Relevant Business Unit

[TRANSLATION] “Ask the BMPO joint managers to:

- *complete all accountability documents stipulated in the agreements reached between the city and SHM for the Bonaventure Expressway project*
- *submit for approval these documents to the management committee.” (Planned completion: May 2012)*

[TRANSLATION] “Require:

- *the SHM’s 2011 activity report (which will be submitted in 2012) to contain a status of the work completed under its expanded mandate*
- *the SHM to submit its audited financial statements for the 2011–2012 fiscal year to the city.” (Planned completion: September 2012)*

#### 4. APPENDICES

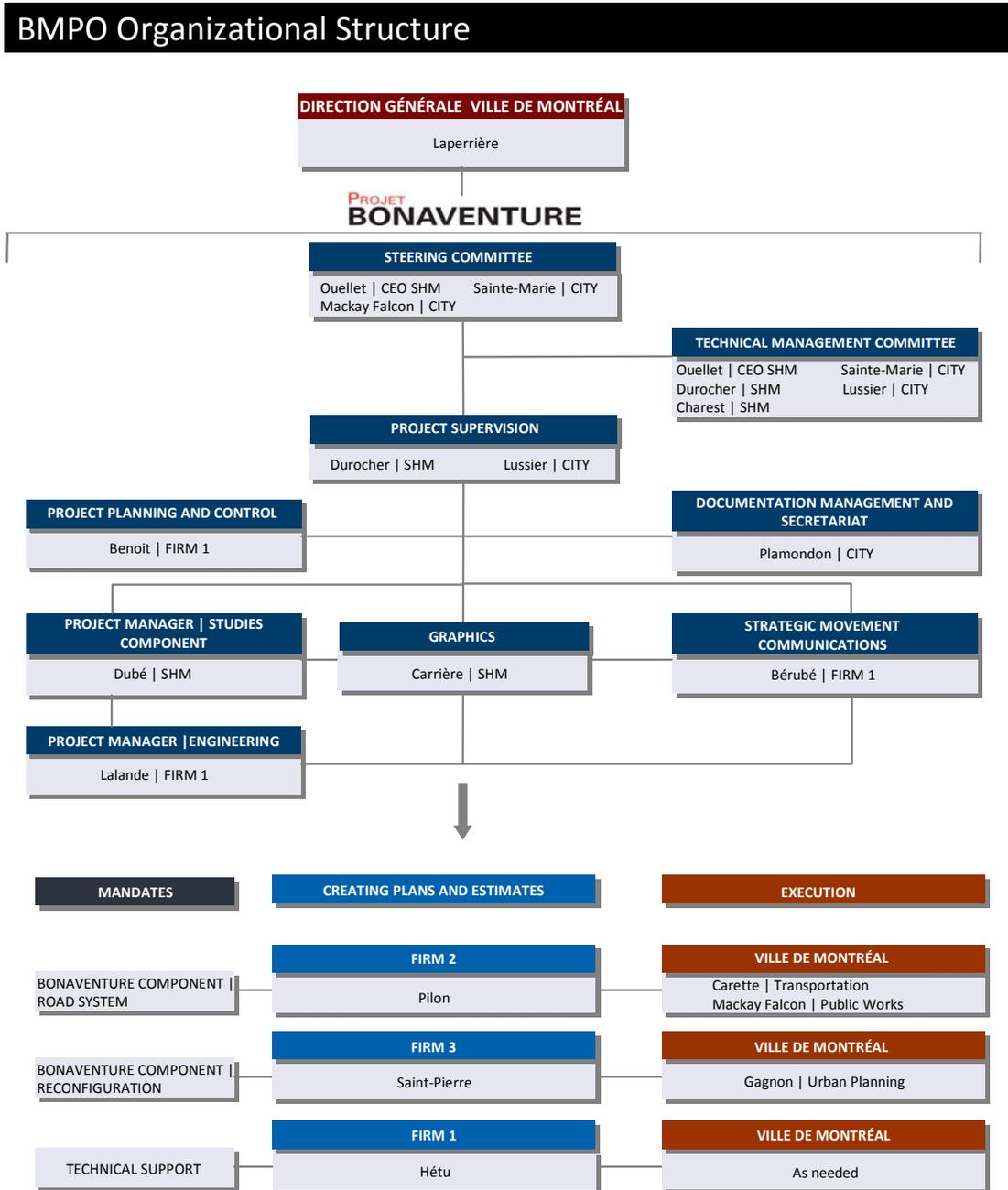
##### 4.1. AGREEMENTS REACHED BETWEEN THE CITY AND THE SOCIÉTÉ DU HAVRE DE MONTRÉAL SINCE 2003

**Table A—City Contributions  
(In Thousands of Dollars)**

Resolution No.	Subject	2003	2004	2005	2006	2007	2008	2009	2011
CE03 0670	Loan of staff and equipment purchase	\$256.1							
CE04 1413	Renewal of the loan of staff and financial contribution to complete the work		\$219.7 \$40.3						
CE05 0277	Loan of staff			\$70.0					
CE05 0277	Financial contribution for the study assessing economic benefits			\$125.0					
CE06 1703	Financial contribution for a study into the archaeological potential				\$50.0				
CE06 1874	Financial contribution for a study on aspects of real estate development, economic benefits and cost estimates				\$150.0				
CE07 1145	Financial contribution for a study – traffic component					\$50.0			
CE07 1410	Professional services to create the preliminary and detailed design of Phase 1 of Bonaventure Expressway transformation (rue Saint-Jacques and rue Brennan)					\$7,173.2			
CE07 1411	Promotion of Montréal Harbourfront development and its access plan					\$98.0			
CE08 1025	Preparation of final plans and specifications of Bonaventure Expressway transformation between rue Brennan and rue Saint-Jacques						\$5,643.8		
CE08 1247	Professional services – Incorporating the Griffintown project into traffic studies						\$73.4		
CE09 1680	Preparation of final plans and specifications – Dalhousie corridor reserve bus lane							\$2,596.6	
CE11 0136	2011–2015 agreement on the SHM mandate: <ul style="list-style-type: none"> <li>• Preparation of final plans and specifications of Bonaventure Expressway transformation between rue Brennan and rue Saint-Jacques (final stage)</li> <li>• Professional services for BMPO operations</li> <li>• Plans and specifications for the Dalhousie corridor (adjustment of QST)</li> <li>• Professional fees to update and implement Vision 2025</li> </ul>								\$5,350.6 \$4,303.7 \$24.1 \$500.0
<b>Subtotal</b>		<b>\$256.1</b>	<b>\$260.0</b>	<b>\$195.0</b>	<b>\$200.0</b>	<b>\$7,321.2</b>	<b>\$5,717.1</b>	<b>\$2,596.6</b>	<b>\$10,178.3</b>
Other undocumented contributions			\$181.8		\$217.2				
<b>Total city contributions (2003–2011 agreements)</b>		<b>\$256.1</b>	<b>\$441.8</b>	<b>\$195.0</b>	<b>\$417.2</b>	<b>\$7,321.2</b>	<b>\$5,717.1</b>	<b>\$2,596.6</b>	<b>\$10,178.3</b>
						<b>\$27,123.3</b>			

Source: Agreements signed between the city and the SHM.

## 4.2. ORGANIZATIONAL STRUCTURE OF THE BONAVENTURE MIXED PROJECT OFFICE





# V.12. Physical Security Management



**Vérificateur général**  
de la Ville de Montréal



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## V.12. PHYSICAL SECURITY MANAGEMENT

### 1. INTRODUCTION

The Ville de Montréal (the city) and the bodies it controls own a number of important, valuable assets located, stored or kept in various municipal buildings and facilities. Given how important these items are, adequate physical security measures must be put into place to protect these buildings and facilities against acts of terrorism, theft and sabotage.

Physical security comprises three levels of protection: outer perimeter, inner perimeter and building interior.

The outer perimeter refers to the outside limits of a property, excluding the actual building. It can include such areas as parking lots. The goal in securing the outer perimeter is to control access and make sure that only authorized individuals enter a property. Various approaches can be taken in this regard, from a simple lock on a gate to a fully staffed security checkpoint.

The inner perimeter refers to such things as doors, windows and walls through which an individual can enter a building. Securing the inner perimeter involves preventing intruders from entering the building interior. This is achieved through such security devices as door locks, access cards and alarm systems.

The last level of physical security—the building interior—also needs to be protected. Adequate interior security makes it possible to control the comings and goings of employees, consultants, visitors and others and ensure that unauthorized individuals do not have access to sensitive areas, such as server rooms, communications centres and offices where confidential information is kept.

To be reasonably assured of the quality of the physical controls in place to protect the city's assets, we decided to assess physical security management during our audit.

## 2. AUDIT SCOPE

The main purpose of our audit of physical security management was to provide an independent review of the effectiveness of the controls that have been put in place and thus determine whether the physical security of buildings occupied by city employees is appropriate and adequate.

Our approach was developed following our risk analysis of city buildings and their context.

We based our approach and our audit criteria on industry best practices and developed our audit program after consulting several relevant publications.

We performed our audit tests in the presence of officials from the relevant business units and, when applicable, representatives of the security companies used by the city. We interviewed these individuals and took a comprehensive tour of the audited facilities.

Following our risk analysis, we focused our audit on a total of 17 sites involving seven business units. Given their sensitive nature, the list of these sites will remain confidential.

The physical security management audit concentrated on controls related to:

- physical security governance
- access perimeter
- access authentication and control
- surveillance and detection equipment
- environmental protection

The following elements were excluded from our audit:

- disaster management and business continuity procedures
- emergency equipment of a medical nature
- insurance policies
- contractual agreements

### 3. FINDINGS AND RECOMMENDATIONS

In this section, we will outline the main deficiencies observed in the various business units and sites we audited. For confidentiality purposes, we will not disclose the details and results of the physical security management tests that we conducted. A special audit report was nevertheless submitted confidentially to the relevant business units, which corroborated the findings and recommendations pertaining specifically to them. Each of the units has committed to putting the corrective measures in place.

We assessed the observed deficiencies based on three impact levels, as indicated in Table 1.

**Table 1—Description of Impact Levels**

Level of impact	Definition
Critical	Direct consequence on public safety or health that may endanger the health of individuals.
High	Although there is less of a threat to public health or safety at this level, the presence of many high-value assets or highly confidential and strategic information implies that an intrusion would severely damage the city's operations and reputation.
Moderate	Given the presence of some high-value assets or certain confidential or strategic information, an intrusion would interfere moderately with the city's operations.

#### 3.1. PHYSICAL SECURITY GOVERNANCE

##### 3.1.1. UNMONITORED USE OF ACCESS CARDS AND KEYS

###### 3.1.1.A. Background and Findings

It is important to adopt a structured system in an organization to ensure that the various departments operate the same way in response to identified business risks. In the context of this particular audit, a structured system would help reduce physical security-related risk to an acceptable level.

For example, a well-structured building access card system would include requirements related to several factors:

- requests for access cards
- changes in access cards
- review of cardholders
- deactivation of access cards

Eight of the 17 sites we audited had no structured system in place to control access cards and keys.

In our opinion, the impact level of this situation is moderate, exposing the city to the following risks and potential consequences:

- Security considerations related to access card management may not be followed fully in every municipal building. As a result, unauthorized individuals may gain access to premises where they can commit unlawful acts or access confidential information.
- Given the lack of management procedures for controlling the use of keys, it is possible that unauthorized individuals have possession of keys that let them enter sensitive or high-risk areas or premises.

#### **3.1.1.B. Recommendations**

**We recommend that the relevant business units develop a structured system to help ensure the appropriate management of access cards and keys.**

## **3.2. ACCESS PERIMETER**

### **3.2.1. VALUABLE OR CRITICAL ASSETS VISIBLE FROM THE OUTSIDE**

#### **3.2.1.A. Background and Findings**

In accordance with industry best practices, all valuable or critical assets found within a building must be hidden from public view, both from the inside and from the outside.

In 2 of the 17 sites we audited, however, we noted that:

- The exterior windows of a warehouse where valuable assets were being stored were not opaque. The public could therefore clearly see the contents from the outside.
- The exterior windows of a room containing confidential information were fitted with curtains, but these curtains were not shut. As a result, it was possible to see the contents of the room from the outside and even read the labels on the boxes closest to the windows.

In our opinion, the **impact level of this situation is high**, exposing the city to the following risks and potential consequences: ill-intentioned individuals seeing some of the contents in these rooms through a ground-floor window could quickly and easily deduce that there are valuable assets or confidential information on the premises. Based on these observations, they could make plans to commit theft or perpetrate other acts that target these sensitive or critical areas.

#### **3.2.1.B. Recommendations**

**We recommend that the relevant business units undertake measures to prevent valuable or critical assets from being visible from the outside.**

### **3.2.2. EXTERIOR DOORS LEFT UNLOCKED OR AJAR**

#### **3.2.2.A. Background and Findings**

A building's exterior doors are the last line of defence and protection against intrusion from an outside source. There are two main types of exterior doors:

- Doors that are used to go in and out of various parts of a building. These types of doors should be equipped with locking mechanisms, such as an access card reader, and kept locked at all times to prevent unauthorized individuals from entering the premises.
- Doors that are used as emergency exits during an evacuation. Although best industry practices dictate that these doors allow egress to the outside at all times, at the same time they must not allow entry to the interior.

In 2 of the 17 sites we audited, some 30 exterior doors were unlocked or ajar.

In our opinion, the **impact level of this situation is high**, exposing the city to the following risks and potential consequences:

- Unauthorized individuals who enter a building through an unlocked door will be gaining access to the assets found on the premises and may use this access for illicit purposes.
- Should theft or other illegal acts be committed, it would be impossible to determine who had been on the premises at the time.

#### **3.2.2.B. Recommendations**

**We recommend that the relevant business units impress upon their employees the importance of not leaving doors unlocked or ajar.**

### **3.2.3. NO PARTITIONS TO PREVENT PHYSICAL ACCESS**

#### **3.2.3.A. Background and Findings**

According to best industry practices, floors and rooms that are not intended for public use should be closed off and protected by some form of access control mechanism. These mechanisms include glass partitions and doors installed in the hallways running between offices or near staircases and elevators. These glass doors should be equipped with an access-card reader and kept locked at all times.

In 1 of the 17 sites we audited, we found that, once we were on certain floors, we had unrestricted access to offices, as there were no access control mechanisms in place whatsoever.

In our opinion, the **impact level of this situation is high**, exposing the city to the following risks and potential consequences: ill-intentioned individuals could access various floors via the staircases and walk around the premises unhindered, free to commit illegal actions or cause harm to building occupants.

#### **3.2.3.B. Recommendations**

**We recommend that the relevant business unit install partitions near staircases and elevator doors to control access to the floors where required.**

### **3.2.4. UNLOCKED ELECTRICAL AND MECHANICAL ROOMS**

#### **3.2.4.A. Background and Findings**

Electrical and mechanical rooms contain transformers, generators and other high-voltage equipment. Industry best practices dictate that all electrical rooms be locked to restrict access to authorized individuals and, specifically, to avoid accidents due to electrical discharge.

In 5 of the 17 sites we audited, electrical or mechanical rooms were not locked.

In our opinion, the impact level of this situation is moderate, exposing the city to the following risks and potential consequences:

- Unauthorized individuals who enter an electrical or mechanical room would be exposed to the risk of electrocution and severe, life-threatening injury.
- If the electrical equipment were to be sabotaged or shut down, it could disrupt building operations.

#### **3.2.4.B. Recommendations**

**We recommend that the relevant business units ensure that electrical and mechanical rooms remain locked at all times and that only authorized individuals have access to these facilities.**

### **3.2.5. UNPROTECTED TELECOMMUNICATIONS EQUIPMENT**

#### **3.2.5.A. Background and Findings**

According to industry best practices, telecommunications equipment must be sufficiently protected to prevent unauthorized individuals from accidentally or deliberately damaging the many wires and cables found there.

Generally speaking, telecommunications equipment is housed in an IT or network room or in a secure cabinet if the surrounding facilities do not offer adequate protection.

In 1 of the 17 sites we audited, the telecommunications equipment was located in a maintenance storage room. It was affixed to a wall and devoid of any form of protection.

In our opinion, the impact level of this situation is moderate, exposing the city to the following risks and potential consequences: unauthorized individuals could advertently or inadvertently damage hundreds of cables, thereby interfering with or even completely disrupting telecommunications services.

#### **3.2.5.B. Recommendations**

**We recommend that the relevant business unit ensure that telecommunications equipment is housed in a secure cabinet that remains locked at all times and is accessible only to authorized individuals.**

### **3.2.6. ROOM IDENTIFICATION SIGNS**

#### **3.2.6.A. Background and Findings**

The main goal of room identification signs in a public or private building is to help visitors find where they are going. Common signs might read something like “Customer Service,” “Samples Room,” “Cafeteria,” “Reception” and “Payments.” Industry best practices specify, however, that facilities of a sensitive or critical nature should not bear identifying signage.

In 3 of the 17 sites we audited, some 25 sensitive or critical areas were clearly identified with information signs or nameplates on the door.

In our opinion, the impact level of this situation is moderate, exposing the city to the following risks and potential consequences: ill-intentioned individuals could quickly and easily determine the purpose of certain rooms and, based on these observations, make plans to commit theft or perpetrate other acts that target these sensitive or critical areas.

### **3.2.6.B. Recommendations**

**We recommend that the relevant business units remove identification signs from all rooms where sensitive or critical operations are located.**

## **3.2.7. LACK OF SECURITY GUARDS**

### **3.2.7.A. Background and Findings**

Security guards screen incoming visitors by checking their identity and verifying the reason for their visit. The very presence of security guards can also help deter potential intruders. Moreover, security guards are trained to respond swiftly and decisively to threats.

In 2 of the 17 sites we audited, there were no security guards in the building lobby.

In our opinion, the impact level of this situation is moderate, exposing the city to the following risks and potential consequences:

- Lack of this deterrent could increase the likelihood of attempted intrusions.
- Without a security guard, it is difficult to ensure an effective response should a visitor become aggressive.

### **3.2.7.B. Recommendations**

**We recommend that the relevant business units implement the appropriate security measures, including the use of an on-site security guard.**

## **3.2.8. LACK OF SECURITY PATROL REPORTING SYSTEM**

### **3.2.8.A. Background and Findings**

A reporting system is used by security companies to ensure guards check all sensitive and critical areas during their routine patrols. The system includes security logs that record the name of the security guard on duty, as well as the date and time key areas are checked.

In 3 of the 17 sites we audited, a security reporting system was not being used.

In our opinion, the impact level of this situation is moderate. Without a reporting system in place, business units cannot be assured that security guards are checking all of the required elements and sensitive and critical areas during their routine patrols.

#### **3.2.8.B. Recommendations**

**We recommend that the relevant business units require security companies to use a reporting system during guards' routine patrols.**

### **3.2.9. UNPROTECTED SECURITY GUARD STATION**

#### **3.2.9.A. Background and Findings**

Security guard stations are generally located on the ground floor of a building, near the main entrance. Security guards are permanently stationed there to control access to the premises.

Based on industry best practices, the portion of the security guard station that is accessible by the public should be equipped with a structure that protects against acts of intrusion or aggression.

In 1 of the 17 sites we audited, the portion of the security guard station that is accessible by the public was not adequately protected.

In our opinion, the impact level of this situation is moderate, exposing the city to the following risks and potential consequences:

- Security guards are vulnerable to attack via a projectile or other weapon (e.g., a firearm or a knife).
- Anybody could enter the security guard station and physically assault the guards.

#### **3.2.9.B. Recommendations**

**We recommend that the relevant business unit install a protective structure around the portion of the security guard station that is accessible by the public to deter potential intruders and attackers.**

### 3.2.10. UNPROTECTED BASEMENT WINDOWS

#### 3.2.10.A. Background and Findings

According to industry best practices, basement windows should be fitted with protective grilles or other security devices to prevent unauthorized access.

In 1 of the 17 sites we audited, three of the seven basement windows were not equipped with security grilles.

In our opinion, the impact level of this situation is moderate, exposing the city to the following risks and potential consequences: intruders could enter the building via these windows and commit vandalism or other criminal acts.

#### 3.2.10.B. Recommendations

**We recommend that the relevant business unit install security grilles on the three unprotected basement windows.**

### 3.3. IDENTITY AUTHENTICATION AND ACCESS CONTROL

#### 3.3.1. LACK OF A KEYHOLDER/CARDHOLDER REVIEW PROCESS

##### 3.3.1.A. Background and Findings

Numerous keys and access cards are used to secure areas in municipal buildings. It is very important that the list of keyholders and cardholders be reviewed on a regular basis to ensure that only authorized individuals have access to locked facilities. A review process makes it possible to:

- develop an exhaustive inventory of keys and access cards
- determine which keys and access cards have been lost or stolen and take the necessary action to change or reprogram the affected locks or access cards
- recover keys and access cards from individuals whose roles and responsibilities do not justify or no longer justify their having them

In 11 of the 17 sites we audited, there was no keyholder/cardholder review process in place.

In our opinion, the **impact level of this situation is high**, exposing the city to the following risks and potential consequences:

- inability to establish an accurate list of the keys in circulation and the names of the people to whom they have been issued
- ability of unauthorized individuals to access restricted premises and sabotage the facilities, steal material or confidential information or commit other criminal acts

#### **3.3.1.B. Recommendations**

**We recommend that the relevant business units:**

- **implement an ongoing keyholder/cardholder review process**
- **replace or modify locks for which keys have been lost or stolen, depending on the level of risk involved**
- **recover keys and access cards from those individuals whose roles and responsibilities no longer require them to access the corresponding restricted areas**
- **keep an up-to-date inventory of all keys and access cards**

### **3.3.2. UNJUSTIFIED ACCESS RIGHTS TO CERTAIN SENSITIVE PREMISES**

#### **3.3.2.A. Background and Findings**

Access to various municipal buildings and premises is controlled by access card readers. This system makes it possible to manage access rights with a high degree of accuracy and ensure these rights are granted solely to authorized personnel.

In 3 of the 17 sites we audited, access rights had been granted to individuals whose roles and responsibilities did not justify it. In some cases, this included access to sensitive premises.

In our opinion, the **impact level of this situation is high**, exposing the city to the following risks and potential consequences:

- access by unauthorized individuals to restricted premises and assets
- unavailability of assets and breach of data confidentiality

#### **3.3.2.B. Recommendations**

**We recommend that the relevant business units deactivate unjustified access rights for those cardholders whose roles and responsibilities no longer require them to be so entitled.**

### **3.3.3. DUPLICATE ENTRIES IN ACCESS CARD MANAGEMENT SYSTEM**

#### **3.3.3.A. Background and Findings**

An access card management system is used to control physical access to municipal buildings and premises.

In 5 of the 17 sites we audited, a number of employees were recorded in the access card management system twice. These employees had been assigned two user accounts for which the access rights were identical or conflicting.

In our opinion, the impact level of this situation is moderate, exposing the city to the following risks and potential consequences: in the event an employee's access rights are modified or revoked, these changes might be made in one of the accounts but not the other. As a result, the employee would retain rights to which he or she was no longer entitled.

#### **3.3.3.B. Recommendations**

**We recommend that the relevant business unit delete duplicate cardholder records.**

### 3.3.4. IT AND NETWORK ROOMS WITHOUT ACCESS CARD READERS

#### 3.3.4.A. Background and Findings

In accordance with industry best practices, and to control access to IT and telecommunications rooms, the doors to these facilities must be equipped with locking systems and access card readers. The system makes it possible to use cardholder information to keep a chronological log of incoming and outgoing IT room users. In the event of a theft or other incident, this information would help determine who was in the area at the time and identify the perpetrator.

In 3 of the 17 sites we audited, the IT or network rooms were not equipped with an access card reader.

In our opinion, the impact level of this situation is moderate, exposing the city to the following risks and potential consequences:

- inability to identify individuals present during an act of sabotage, theft or other wrongdoing
- ability of an unauthorized individual to gain access to network rooms and equipment and install a device to hack into the building's system and steal data
- loss of availability, integrity and confidentiality of the data processed by and stored on network servers and facilities

#### 3.3.4.B. Recommendations

**We recommend that the relevant business units install locks and access card readers on all IT and network room doors.**

### 3.3.5. DEFECTIVE ACCESS CARD READERS

#### 3.3.5.A. Background and Findings

As we indicated earlier, access card readers make it possible to ensure that access to municipal buildings is secure. If these readers are out of order, the city has to resort to using keys, which makes it impossible to effectively monitor the comings and goings of occupants and visitors.

In 1 of the 17 sites we audited, seven access card readers were defective. It is important to note, however, that the doors in question were still locked.

In our opinion, the impact level of this situation is moderate, exposing the city to the following risks and potential consequences: inability to identify individuals who have entered and exited the premises, in the event of sabotage, theft or other criminal acts.

#### **3.3.5.B. Recommendations**

**We recommend that the relevant business unit ensure the defective access card readers are operating properly.**

### **3.3.6. CODE-OPERATED LOCKS**

#### **3.3.6.A. Background and Findings**

Before the advent of access card systems, code-operated locks were used to control access to sensitive and critical areas. Each lock was programmed with a single access code, and this same code was provided to several authorized individuals. This system could not be used, however, to accurately identify who was on the premises and when. Although the code could be reprogrammed regularly, this was not a routine practice in most cases.

In 3 of the 17 sites we audited, several inside doors were equipped with code-operated locks. Some of these codes had remained the same for roughly 15 years.

In our opinion, the impact level of this situation is moderate, exposing the city to the following risks and potential consequences:

- Although code-operated locks are more secure than traditional key-operated locks, they cannot ensure that access to a given area will be restricted exclusively to authorized individuals. Because the codes are not changed on a regular basis, they are known to numerous individuals who do not need access to these premises to fulfill their duties.

- If material or strategic information is stolen or another act of wrongdoing is committed, it would not be possible to determine who was on the premises at the time.

#### **3.3.6.B. Recommendations**

**We recommend that the relevant business units replace code-operating locks with access card systems.**

### **3.4. SURVEILLANCE AND DETECTION EQUIPMENT**

#### **3.4.1. DEFECTIVE, POORLY POSITIONED AND OUTDATED SURVEILLANCE CAMERAS**

##### **3.4.1.A. Background and Findings**

A surveillance camera system consists of several cameras strategically located along the outside and inside perimeters of a building to monitor individuals at entry and exit points. The images captured by these cameras are recorded and archived digitally using electronic media such as DVDs or hard drives.

The main goals of a surveillance camera system are to act as a deterrent to potential perpetrators, easily identify the individuals involved in incidents and check for false alarms.

##### **DEFECTIVE CAMERAS AND CAMERAS NOT PROPERLY POSITIONED TO COVER SENSITIVE AREAS**

During our audit, we noted the following problems:

- In 1 of the 17 sites we audited, 72% of surveillance cameras were non-operational.
- In 1 of the 17 sites we audited, two blind spots prevented the surveillance cameras from recording incidents that occurred in two sensitive areas.
- In 5 of the 17 sites we audited, none of the sensitive areas were being monitored by surveillance cameras.

In our opinion, the **impact level of this situation is high**, exposing the city to the following risks and potential consequences:

- Outside-perimeter surveillance of incoming and outgoing visitors cannot be conducted in a way that covers all the sensitive access points on site and within the different buildings and rooms.
- Should an incident occur, it would be difficult, even impossible, to identify the perpetrators.

### **ANALOG VIDEO SURVEILLANCE SYSTEM**

In 2 of the 17 sites we audited, the video surveillance system feed was being recorded on VHS cassettes, an outdated technology.

In our opinion, the impact level of this situation is moderate, exposing the city to the following risks and potential consequences:

- growing difficulty in finding VHS tapes for recording video feeds
- cost of VHS recording and archiving is higher than digital media solutions (DVDs, hard disk, etc.)
- difficulty in searching through recorded footage and identifying perpetrators, given the much lower image quality of analog VHS images compared with digital recordings

#### **3.4.1.B. Recommendations**

**We recommend that the relevant business units:**

- **repair defective surveillance cameras and ensure all cameras remain operational**
- **adjust camera positioning to avoid blind spots**
- **install surveillance cameras in a way that ensures that all sensitive and critical areas are covered**

**We also recommend that the relevant business units upgrade their video surveillance recording systems from analog to digital.**

### 3.4.2. ABSENT OR DISCONNECTED INTRUSION ALARM SYSTEMS

#### 3.4.2.A. Background and Findings

Intrusion alarm systems are installed at a number of points, including fences, doors and windows that are relatively easy to access from the outside.

If a gate, door or window is opened, tampered with or broken, an alarm is immediately sent to a surveillance centre to alert security guards. This enables them to take swift action to check whether the alarm is genuine and, if so, to try to thwart the attempted intrusion.

Two of the 17 sites we audited were not equipped with an intrusion alarm system.

In 2 of the 17 sites we audited, an intrusion alarm system was installed but was not connected.

In our opinion, the impact level of this situation is moderate, exposing the city to the following risks and potential consequences: ill-intentioned individuals could access the premises and, because the property is not equipped with an alarm system, they could do so without the system alerting the security guards that an intrusion was in progress. Consequently, the guards would not be able to take timely action to deal with the perpetrators.

#### 3.4.2.B. Recommendations

**We recommend that the relevant business units:**

- **look into the possibility of installing intrusion alarm systems to protect their valuable assets**
- **connect the two alarm systems that are already installed but not operational**

### 3.5. ENVIRONMENTAL PROTECTION

#### 3.5.1. LACK OF FIRE DETECTORS IN IT ROOMS

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

Fire and smoke detectors installed in IT rooms make it possible to identify problems and immediately advise fire response teams of an incident. This helps contain a fire before servers, network equipment and data are destroyed.

In 1 of the 17 sites we audited, one IT room was not equipped with a smoke and fire detector.

In our opinion, the impact level of this situation is moderate, exposing the city to the following risks and potential consequences: slower response time, which could result in the destruction of servers, data and network equipment in the IT room.

##### **3.5.1.B. Recommendations**

**We recommend that the relevant business unit install a fire detection system in the IT room.**



# V.13. Outsourcing Project for Telecommunications Services–Follow-Up



**Vérificateur général**  
de la Ville de Montréal



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## LIST OF ACRONYMS

CET	Centre d'expertise en télécommunications	SPVM	Service de police de la Ville de Montréal
CSC	Centre de sécurité civile	SSIM	Service de sécurité incendie de Montréal
DSI	Direction des systèmes d'information	STI	Service des technologies de l'information
ICMD	inventory and configuration management database	TCEP	three-year capital expenditures program
JIC	joint issue-solving committee	UPC	uninterruptible power supply
OPP	operational process and procedure		

## V.13. OUTSOURCING PROJECT FOR TELECOMMUNICATIONS SERVICES—FOLLOW-UP

### 1. INTRODUCTION

In January 2008, the urban agglomeration council of the Ville de Montréal (the city) awarded TELUS Québec (TELUS) a 7-year contract for landline telephone services (\$42 million) and one 10-year contract for data transmission services (\$57 million). Bell Mobility was also awarded a 4-year cellular telephone services contract (\$9 million). Each of these contracts also included a 20% contingency reserve totalling \$18 million. Once these contracts were awarded, TELUS was to assume responsibility for landline telephone services as of October 31, 2008 and data transmission services as of November 30, 2008.

These contracts were the culmination of a strategic planning process that began in 2003, when municipal authorities concluded that the existing networks' limited capacity was insufficient to support the city's growing needs, there was an insufficient reliability level for critical applications and there was a high degree of equipment obsolescence. The purpose of the new contracts, which went to calls for tenders in 2007, was to ensure the availability and support the development of the city's high-performance networks at a minimum cost to the city. The adopted strategy was in line with the city's outsourcing philosophy, under which the city retains the responsibilities of "planner-user," while transferring operational responsibilities to the winning bidder.

The decision-making summary on the contract awards stated that the effort to outsource telecommunications services (the project) was among the objectives targeted in the city-wide review of activities, services, operations and programs (RASOP). One of these objectives was to optimize use of the city's telecommunications networks and the decision-making summary specified that these contracts would result in savings of some \$50 million over a 10-year period. These savings were associated for the most part with the deployment of landline telephony and data transmission services, as outlined in the contracts awarded to TELUS, and were largely predicated on the

widespread transfer of landline telephony to IP telephony<sup>1</sup> and a reduction in expected investment.

### **2009–2010 AUDIT**

In October 2009, nearly a year after the transfer of control as specified in the contracts, we began our audit, which at the outset focused primarily on the administration of the outsourcing contracts and the monitoring procedures that had been instituted. As we observed that there had been a significant delay in the project, we shifted our focus to identifying the causes of the delays and the challenges associated with the operational phase, which was to begin in 2011. We excluded the cellular telephone services contract from the scope of our audit.

We completed our audit in February 2010, and our findings were published in our 2009 annual report in May 2010. The report revealed that the delays were largely attributable to deficiencies in the process of defining needs, inconsistencies in the outsourcing strategy, divergent positions in the interpretation of the specifications and a major reorganization of the TELUS and city teams involved in the project. As a result, there were several repercussions related to the transfer of services, contract management, financial commitments and the objectives of the outsourcing strategy. A joint issue-solving committee (JIC) was therefore set up to recommend solutions to the disagreements between the city and TELUS.

We made 19 recommendations in our report, particularly to strengthen project governance, help resolve the differences between the parties, ensure sound reporting on the strategic and financial goals in the decision-making summary and ensure the continuity of critical services under the purview of the city.

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<sup>1</sup> Internet Protocol telephony.

**PROJECT PROGRESS**

A) MIGRATION STATUS

In our 2009 audit, the migration process was considerably behind schedule. The process is now, for all intents and purposes, complete, with a few exceptions. The main units where migrations have yet to be carried out are listed in Table 1.

**Table 1—Migration Remaining**

Category	Target quantity	Status indicated in 2009 report	Status as of November 28, 2011	Planned completion
<b>Réseau Accès Montréal</b>				
IP telephone lines	400	0%	0%	March 2012
<b>Service de police de la Ville de Montréal (SPVM)</b>				
Centrex telephone lines	2,615	0%	0%	April 2012
Links – Data transmission	99	0%	19%	June 2012
<b>Service de sécurité incendie de Montréal (SSIM)</b>				
Centrex telephone lines	622	0%	6%	February 2012
IP telephone lines	290	0%	58%	June 2012

B) CHANGING NEEDS AND INVENTORIES

Although the migration to TELUS is not completely finalized, we can use the information we have to compare the needs indicated in the initial specifications with those we confirmed at the time of our follow-up (see Table 2).

**Table 2—Changing Needs**

	Based on specifications	Based on due diligence	Situation as of October 28, 2011 <sup>1</sup>
Centrex telephone lines	1,500	6,284	8,553
IP telephone lines	15,000	12,918	6,299
Centrex telephone lines (further investigation required) <sup>2</sup>	0	0	725
<b>TOTAL – Telephone lines</b>	<b>16,500</b>	<b>19,202</b>	<b>15,577</b>
<b>TOTAL – Network outlets</b>	<b>9,555</b>	<b>12,918</b>	<b>14,316</b>

<sup>1</sup> According to the Service des technologies de l'information (STI), the number of telephone lines remained fairly stable in November 2011. The number of network outlets, however, could go as high as 15,000.

<sup>2</sup> Lines that require further investigation to determine current use.

C) PROBLEM-SOLVING

In our 2009 report, we indicated that several factors had contributed to the delay in implementing the transition plans and that a joint TELUS-city committee had been set up to iron out the problems. During this follow-up, we noted that most of the issues had been resolved, except for a few of a financial nature.

**Table 3—Issues**

	Based on 2009 report	Situation as of November 2011
Issues raised	16	20
Issues resolved	3	17
Issues unresolved	13	3 <sup>1</sup>

<sup>1</sup> Unresolved issues are being handled by a new joint committee focusing on financial matters.

D) SERVICE QUALITY AND RELIABILITY

In the appendices of its contract specifications, the city had included a list that described and set the levels of service that TELUS was required to provide.

However, more than three years after the telephony and data transmission contracts were awarded, TELUS has yet to deliver the management reports and score cards that would allow the city to evaluate the quality of the services provided compared with the required levels of service.

Moreover, several major interruptions<sup>2</sup> in IP telephony and voice mail services in 2010 and 2011 have cast doubt on the stability of these solutions.

## 2. AUDIT SCOPE

In our 2009 report, we indicated that, given the strategic importance of this project in providing services to the public and the magnitude of the corresponding financial impacts, we intended to monitor the measures taken in response to our recommendations very closely.

Consequently, at the close of 2010, we sought to determine how rigorously these recommendations had been followed and whether they had helped address the problems that had been identified. We therefore focused our efforts on nine recommendations we considered to be “major,” given their significant impact on strategic objectives, the authorized financial framework and the continuity of telecommunications operations. The remaining recommendations were examined according to the standard follow-up procedures.

This follow-up should answer these questions:

- Did the units involved make satisfactory progress in implementing these recommendations?
- Are there still obstacles hindering progress in telecommunication migration and governance?
- Have any new major problems emerged since our initial audit?

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<sup>2</sup> Translation of the French expression *panne majeure*, which is defined in the document *Processus et procédures opérationnels – Gestion des incidents*.

The nine major recommendations we identified dealt with:

- prioritization of outsourcing objectives
- project governance
- financial framework
- contract management framework
- network continuity and evolution
- disaster recovery plans
- emergency action plan

In addition to these recommendations, we looked into an issue related to management of the security aspect of the project, which will be addressed in section 3.8.

For reasons beyond our control, we were forced to suspend our follow-up activities in spring 2011 and resume them in fall 2011.

To evaluate the measures taken by the units, we obtained their own evaluations of the progress made in actions resulting from our recommendations, in accordance with the standard reporting process for all of our reports. The information we received indicated that three of the nine recommendations were considered to be completed. The other six were expected to be finalized by the time we resumed our follow-up in fall 2011.

To corroborate this information and evaluate the progress made in the issues identified in our report, we obtained relevant information and documents and interviewed key stakeholders at the STI, the Service des finances and the Service des affaires juridiques et de l'évaluation foncière.

The results of our follow-up are based on the situation as it stood on November 30, 2011. Any subsequent changes or improvements have not been taken into consideration in this report.

Our conclusions are based on the same evaluation criteria as the ones we used in our 2009 audit. However, neither the work we did nor the resulting report constitutes a new audit or a comprehensive follow-up.

### 3. FOLLOW-UP ON MAJOR RECOMMENDATIONS AND NEW FINDING

#### 3.1. PRIORITIZATION OF OUTSOURCING OBJECTIVES

##### 3.1.A. Original Recommendations from the 2009 Auditor General's Report

1. *We recommend that the Direction générale determine which outsourcing objectives shall be prioritized.*
2. *We further recommend that the Direction des systèmes d'information of the Service des immeubles et des systèmes d'information [now the STI]:*
  - *ensure that both parties understand and acknowledge these objectives;*
  - *take the necessary measures to incorporate them in the resolution of issues affecting network migration and contract management.*

##### 3.1.B. Findings

The renewal of the city's telecommunications contracts stemmed from a strategic planning process initiated in 2003. The strategy selected at the end of the process was outsourcing, under which the city aimed to retain its responsibilities as a "planner-user" while transferring operational responsibilities for telecommunications services to the winning bidder.

In 2009, we noted that various factors had contributed to create a certain amount of confusion concerning the outsourcing strategy. This confusion exacerbated the problems and undermined the internal consistency required to implement effective governance. We therefore felt it to be critical to update the objectives, prioritize them and incorporate them into the decision-making process. These recommendations were also shared by the Direction générale, which acknowledged that they were in line with the city's new policies on major projects and programs.

To implement the second recommendation, the STI introduced various mechanisms that made it possible to bring the parties together and ensured a greater degree of internal consistency. Consequently, the decision-making process, the structure of the Centre d'expertise en télécommunications (CET) and the coordination mechanisms between the city and TELUS, and particularly those developed by the JIC, helped build

consensus on the manner in which contracts are interpreted and responsibilities shared. The migration process therefore resumed and progressed at a steady pace. Strides were also made in the development of the governance structure to be implemented at the end of the process.

The STI also held meetings to brief stakeholders on introducing the user-payer principle to its client units. Not only did these meetings help clarify the roles of the parties involved, but they also made it easier to achieve a strategic objective, i.e., optimizing the use of the city's telecommunications services by fostering user accountability and empowerment.

However, the strategic objectives that originally led to the decision to outsource telecommunications services were not reviewed or prioritized by the Direction générale. The Direction générale had planned to submit them in December 2010 but has not yet done so. The strategic plan that was developed before the contracts were awarded has therefore never been formalized and is fast becoming outdated.

### **3.1.C. Conclusions**

After we issued our recommendations, the STI diligently proceeded to clarify its contract management objectives. It approached the matter pragmatically, attempting to overcome roadblocks and minimize financial repercussions for both parties. As a result, several of the issues identified in our 2009 report were resolved, the migration process moved forward at a steady pace and a greater degree of internal consistency was achieved. Although these efforts did not take into account the outsourcing priorities endorsed by the Direction générale, **we consider the implementation of Recommendation #2 to be complete.**

However, since the strategic objectives have not been updated or prioritized, it is impossible to tell whether the resulting consensus and decisions adhere to a strategic, consistent vision of the city's telecommunications services. Some decisions, especially those involving security matters, as we will see later, and the existence of other unresolved issues cast doubt on the city and TELUS's planned approach to sharing responsibilities and risks.

Although the Direction générale did not follow through with Recommendation #1 as it had planned, we feel that this is no longer relevant to resolving the issues and we will therefore exclude it from future follow-ups. However, we reiterate that the STI, in conjunction with the Direction générale, must update the city's telecommunications vision and set specific objectives before drafting the specifications for the next call for tenders.

## 3.2. PROJECT GOVERNANCE

### 3.2.A. Original Recommendations from the 2009 Auditor General's Report

3. *We recommend that the Direction générale establish a governance framework that will formalize the frequency and content of reports, especially with respect to financial structure, high priority issues and meeting the objectives sought by outsourcing telecommunications services.*
4. *We also recommend that the Direction des systèmes d'information of the Service des immeubles et des systèmes d'information [now the STI] update the major risks and issues pertaining to the ability to manage the migration effort and the awarded contracts, as well as the mitigation tools that already exist or that will be established in accordance with a precise schedule.*

### 3.2.B. Findings

In our 2009 report, we assessed the extent to which the project's governance framework enjoyed:

- a clear vision at all levels of the organization
- accountability and leadership that facilitate efficient decision-making
- sufficiently available resources, expertise and managerial information
- a process for oversight and learning that can guide activities toward the targeted objectives

In accordance with the supervisory model developed and distributed by the Canadian Institute of Chartered Accountants (CICA) and consistent with the Direction générale's work on the *Cadre de gouvernance des projets et des programmes de gestion d'actifs*

*municipaux*, we felt these conditions were essential to achieving project objectives efficiently and effectively.

Beyond the problems linked to the clarity of the vision and objectives that we discussed earlier, we pointed out the need to tighten up the decision-making structure, improve risk assessment and control, prepare action plans to mitigate these risks and report to authorities.

Although the STI conducted a risk assessment exercise within the CET and designed a project monitoring and oversight system based on score cards and a register of issues, these elements had not been incorporated into the formal monitoring and reporting structure when our report was issued in 2009. To achieve this goal, we felt that the STI needed to have the necessary resources and reach an agreement with the Direction générale on a formal, simple and effective means of monitoring and reporting.

In response to Recommendation #3, the Direction générale committed to submitting an decision-making summary to the executive committee to formalize the reporting process. Initially, this summary was to have been produced in December 2010. However, with the executive committee's attention focused on city budget cuts and the emergence of several uncertainties related to the development of the financial framework, the decision-making summary had still not been submitted as of the end of our follow-up.

As for the STI, it has strengthened its internal monitoring and reporting capabilities. A management score card report displaying the status of the migration has been regularly submitted to the department head. The same approach has been taken to track the JIC's activities. This has helped promote effective decision-making in line with target objectives. However, beyond the standard budget process, reporting to the Direction générale and authorities remains limited and has not been incorporated into the new *Cadre de gouvernance des projets et des programmes de gestion d'actifs municipaux*.

In response to Recommendation #4, the STI, in conjunction with TELUS, has conducted various risk analyses at certain stages of the migration process, especially within

departments whose operations are deemed critical, e.g., the SPVM, the SSIM, drinking water treatment plants and the wastewater treatment plant. We did not perform a detailed check of the quality of these analyses, but they appear to us to be relevant and thorough. The STI has not updated or monitored the risks that had been identified by the CET in 2009. The STI considers that the purpose of this exercise was first and foremost to promote a greater understanding of the project within the unit and that other mechanisms would subsequently be introduced to enable it to effectively track the main project risks.

### 3.2.C. Conclusions

**We consider that the implementation of Recommendation #3 has not been completed and we will continue to monitor it.** As we will see later in this report, the project's financial framework is still in development. We therefore feel it would be preferable to wait for the migration process to be finalized before getting into the framework specifics. In other words, it is reasonable that the decision-making summary that the Direction générale had originally planned on developing has still not been submitted. However, we do feel that it would have at least been possible to formalize the frequency and content of the accountability process to be submitted to the authorities.

Developing a score card that monitors the main risks of the migration process, contract administration and financial commitments would still be worthwhile, and we reiterate that it should be incorporated into the accountability process. It would make it possible to track budgets more carefully and thus understand the residual risks that the city agrees to assume. Accordingly, the STI has begun considering the qualitative and quantitative aspects that should be included in its reports to its clients and to the Direction générale.

Although the STI has not updated all of the risks and issues it identified in 2009, we consider that the **implementation of Recommendation #4 meets the desired objectives**, i.e., the ability to manage the migration and administer outsourced contracts. **We therefore consider that it has been completed.** However, we feel that the integrated management of the risks associated with the entire outsourcing project,

not just contract administration, should be pursued, especially in response to Recommendation #3.

### 3.3. THE PROJECT'S FINANCIAL FRAMEWORK

#### 3.3.A. Original Recommendations from the 2009 Auditor General's Report

5. *We recommend that the Direction des systèmes d'information of Service des immeubles et des systèmes d'information [now the STI], in conjunction with the Service des finances, complete the financial [framework]. Upon completion, it should request the assistance of the Direction générale in presenting this [framework] to the municipal authorities for approval.*

#### 3.3.B. Findings

In our 2009 report, we indicated that no financing package had been prepared before the contracts were awarded and that the \$50-million savings estimate was unsubstantiated. The decision-making summary had stipulated that the savings would be generated primarily by landline telephony services and were largely predicated on the use of IP telephony.

In addition, we reported that we were not able to obtain documents supporting the distribution of contract-related expenses between the three-year capital expenditures program (TCEP) and the operating budget. The decision-making summary indicated that \$33 million in expenses would be allocated to the TCEP and the rest to the operating budget.

We also reported that following the appointment of a new head of the DSI (now the STI), a draft financial framework for the project was being developed.

Our analysis of this framework demonstrated that the forecast project costs already equalled the budget initially authorized by the authorities, including the 20% contingency reserve for the delivery of additional goods and services.

Based on these findings, we recommended that the DSI and the Service des finances complete the financial framework for the project and then, in conjunction with the Direction générale, present it to the municipal authorities for approval.

During our follow-up, we discovered that the financial framework is still incomplete and so was never presented to the municipal authorities for approval.

There are several factors that explain the STI's delay in completing the financial framework. In our 2009 report we indicated that a JIC had been set up and mandated to come up with solutions to the disagreements between the city and TELUS. We felt that the resolution of these issues stood to have major consequences on the project's financial framework. Some of these issues are still being discussed by the JIC.

We found that most of these issues have been resolved, but discussions are ongoing between the city and TELUS via a new committee, whose mandate is focused exclusively on settling problems of a financial nature.

There is another factor that must be taken into consideration. As mentioned in our 2009 report, the city does not have a complete, up-to-date inventory of all its telephone lines and network outlets along with their locations. As a result, the city has had to establish an inventory of its telephone lines and network outlets as the various migration operations have been carried out. Because the migration process is not yet completed, the city's final inventory is unknown, thereby causing further delays in the completion of the financial framework.

Recommendation #5 stated that the financial framework should be completed in conjunction with the Service des finances. In this regard, the Service des finances insisted on obtaining a financial framework that could be used to compare previous contract costs and costs associated with new contracts, with a view to calculating the resulting savings. However, the Service des finances was unable to compile all telecommunication service costs incurred before the contracts were awarded. As a result, it is impossible to show that the new contracts have yielded the savings announced in the decision-making summary.

We understand that the Service des finances did not think it was the right time to be actively involved in the development of the financial framework and preferred to review the framework only once the migration process had been completed and the final inventories had been established. However, the Service des finances did confirm to us that they would report on the financial framework to authorities.

Given that the financial framework has not been finalized, we cannot evaluate whether it is comprehensive in scope or whether the authorized budget is sufficient. In addition, because this is a follow-up exercise and not a detailed audit, we did not perform an exhaustive review of all of the factors that might influence the financial framework. Furthermore, in order to ensure Recommendation #5 is still relevant, we examined the changes in the main findings indicated in our 2009 report that led us to make the recommendation in the first place. The next part of the report will therefore explore the elements that were already identified and that were expected to change:

- IP telephony migration target
- underestimation of the number of network outlets
- CET operating expenses
- contract awarded to the city's former service supplier

### **IP TELEPHONY MIGRATION TARGET**

As mentioned above, the decision-making summary on the contract awarded indicated that the main cost savings would involve landline telephony and were largely predicated on the use of IP telephony.

To date, 6,989<sup>3</sup> IP lines are operational, compared with the initial forecast of 15,000 lines, as stated in the contract specifications. The result is a negative variance of 8,011 lines (53%).

The impact of this negative variance is that the city will have to assume an additional cost of \$7.48 million (before taxes) for the remaining term of the contract, i.e., four

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<sup>3</sup> Figure calculated by adding the number of IP telephone lines at Réseau Accès Montréal (400), the SSIM (290) and others listed in Table 2 (6,299).

years, because according to the initial forecasts, the migration was supposed to have been completed after the third year of the contract. However, with 8,011 fewer lines, the city will not have to purchase the equivalent number of IP telephones, the estimated cost of which would be \$1.15 million (before taxes). This amount would have been allocated to the TCEP.

There are various reasons why the target in the decision-making summary could not be met. As Table 4 shows, IP telephony becomes beneficial from an economic perspective only when an IP telephone is coupled with a workstation. However, as we mentioned in our 2009 report, not all telephones can actually be migrated to IP telephony. If they cannot be coupled with a workstation, migration is not possible. This is the case, for example, for telephones in waiting rooms or conference rooms and those where restricted workstation access precludes this possibility.

**Table 4—Telephony Charges**

Monthly charge	TELUS Centrex	TELUS IP telephony (with workstation)	TELUS IP telephony (without workstation)
Line <sup>1</sup>	\$28.13	\$8.70	\$8.70
Network outlet	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$19.00</u>
Total – Cost of telephone	\$28.13	\$8.70	\$27.70

<sup>1</sup> Includes voice mail.

The presence of telephones that cannot be migrated to IP telephony does not explain in and of itself why the CET has not been able to achieve the deployment target established in the specifications. The IP telephony deployment strategy the DSI established at the time did not take into account the unique characteristics and operational limitations specific to an organization as complex as the city.

In this context, it is not surprising that several of the city's units have not been able to comply with this strategy, including:

- SPVM
- Centre d'urgence 911
- paramunicipal corporations and associated bodies

**In the case of the SPVM**, it is important to recall that the specifications indicated that landline telephony services, including the migration to IP telephony and data transmission services, needed to be available for the SPVM based on a per-outlet service model.

In this regard, we pointed out that there was a considerable financial risk involved if the SPVM did not subscribe to the per-outlet service model. As we suspected, security policies that govern the SPVM, including those issued by the Royal Canadian Mounted Police and the Sûreté du Québec, prevent major components of the SPVM's telecommunications network from being operated or managed outside of its security perimeter.

As a result of this situation, the per-outlet service model was not selected, and the SPVM will continue to manage and assume the costs of its own network, including the costs of maintaining custom connections.

**In the case of the Centre d'urgence 911**, we mentioned in our 2009 report that a disagreement persisted on how to handle so-called "administrative" telephone lines used by 911 operators to communicate with the emergency response network.

A subsequent risk and impact analysis on how the 911 situation should be handled showed that technical considerations associated with the existing operational model require that the lines used to communicate with the emergency response network continue to use Centrex technology and be serviced by the former supplier.

The city will therefore endeavour to reach a private agreement with its former supplier in order to maintain this service. This agreement was not in the original plan.

**In the case of paramunicipal corporations and associated bodies**, we indicated in our 2009 report that a problem had been detected during due diligence following an analysis of the telephone line inventory report that the city provided during the call for tenders. This analysis showed that a large number of Centrex lines belonged to associated bodies or paramunicipal corporations rather than to the city itself.

When the former supplier of telephone services refused to transfer these lines on the grounds that they did not belong to the city, letters were sent to the associated bodies and paramunicipal corporations to obtain their agreement.

During our follow-up, we noted that 458 Centrex lines belong to bodies and corporations that have chosen to adhere to the contract. These lines cannot be migrated to IP telephony because the bodies and corporations do not belong to the city data transmission network, which is a prerequisite condition to any such operation.

### **UNDERESTIMATION OF THE NUMBER OF NETWORK OUTLETS**

We noticed an inconsistency in the requirements outlined by the city in the specifications. The city requested the migration of 15,000 Centrex lines to IP telephony, but it indicated that only 9,555 network outlets were required. The problem is that every IP line requires the use of a network outlet. We mentioned in our report that this oversight would increase project costs by a substantial margin. Incidentally, TELUS had also noted this variance during due diligence and requested that additional network outlets be added in order to meet city requirements.

We also found that the number of outlets indicated in the specifications had been underestimated, as a large number of computer peripherals (printers, photocopiers, etc.), which require a network outlet to operate, had been omitted.

As part of the negotiations held by the JIC, it was decided that the final number of network outlets required by the city would be determined following the city's planned streamlining operation. The operation did in fact lead to a significant reduction in the number of network outlets, but it also confirmed our finding that the city had drastically underestimated its needs in its specifications.

As Table 2 shows, the number of network outlets is currently 14,316, and this could climb to 15,000. We estimate that the city will therefore have to assume an extra expense of \$12.7 million (before taxes) over the duration of the contract.

### **OPERATING EXPENSES FOR THE CENTRE D'EXPERTISE EN TÉLÉCOMMUNICATIONS (CET)**

In our 2009 report, we indicated that there were no funds allocated for CET operating expenses in the initial project budget. The executive committee subsequently authorized an additional \$5.7 million to be credited to the project's TCEP account to fund CET operations during the migration phase.

The operating expenses attributed to the CET's TCEP account between 2008 and 2011 amount to \$7.3 million. Over and above these expenses will be the costs related to the permanent structure of the CET, which was being set up during our follow-up activities.

Our estimates put the total cost of this permanent structure at least \$10.5 million over the remaining term of the contracts. This amount takes into account the 14 permanent positions that were confirmed in the STI operating budget for 2012 but excludes the other positions anticipated in the new CET organizational structure.

Total CET operating expenses will therefore be \$17.8 million. However, management expenses for CET operations will be at least 16.5% of the value of the awarded contracts. We consider this to be a reasonable percentage under the circumstances, given that this is a transformation project and that it is common practice with IT projects to earmark 15% of the value of a contract for management expenses.

### **CONTRACT AWARDED TO THE CITY'S FORMER SERVICE SUPPLIER**

As we indicated earlier, owing to technical constraints, not only must the lines used by the Centre d'urgence 911 to communicate with the emergency response network continue to use Centrex technology, they must also continue to be serviced by the city's former supplier.

Because there is currently no contract in place with the former supplier, it now charges a monthly rate that is twice what the city paid previously for these lines.

In addition, the city indicated in its data transmission service specifications that the cost of the copper cables used for security and telemetry applications would continue to be supervised by the city. In the decision-making record submitted to elected officials when the contracts were awarded, however, there was no mention of city costs for maintaining these connections. Moreover, as is the case for the lines used by the Centre d'urgence 911 to communicate with the emergency response network, the service continued to be provided by the former supplier, even though the supplier no longer had a contract with the city.

In an attempt to rectify the situation, the CET entered into negotiations with the former supplier, and an agreement seems imminent. Based on the information we obtained, the city is planning to award its former supplier a contract valued at \$1.8 million per year (before taxes) for as long as these services need to be maintained.

We will now discuss certain findings made after our 2009 report that have had or may have significant repercussions on the financial framework:

- Streamlining needs (Operation Housekeeping)
- Repercussions of unused services
- TCEP
- Benchmarking

#### **STREAMLINING NEEDS (OPERATION HOUSEKEEPING)**

As previously stated, it was decided that the final number of network outlets required by the city would be established once the city had completed its planned streamlining operation.

As a result of this streamlining, commonly referred to as Operation Housekeeping, 472 telephone lines were disconnected, representing total savings of \$637,000 (before taxes) over the remaining duration of the contract. In addition, 5,120 unused or unnecessary network outlets were disabled, thereby generating \$14 million in savings (before taxes).

Moreover, we noted that the lack of an up-to-date inventory meant that, for several years, the city has been paying for telephone lines and network outlets it no longer needed. Operation Housekeeping has therefore helped optimize telecommunications facilities and cut down on costs the city would have had to pay under the terms of its outsourcing contracts. We would like to stress that this is a concrete example of one of the strategic objectives of the outsourcing project that falls outside of the scope of contract awarding criteria but that nevertheless has a significant impact on the financial framework. This underscores the importance of regularly updating, prioritizing and reporting on project objectives, as we pointed out in sections 3.1 and 3.2.

### **REPERCUSSIONS OF UNUSED SERVICES**

In its data transmission specifications, the city indicated its desire to take advantage of recent technological advances.

Among other things, the city mentioned its wish to provide wireless data transmission using Wi-Fi technology to connect to its local network.

Although this service is included in the specifications, a disagreement arose in the interpretation of the specification clauses pertaining to the deployment of Wi-Fi hotspots. At the time this report was written, we were not in a position to assess the financial impacts of this situation.

Given this finding and taking into account previous deployment experiences, we believe there is a risk that new financial consequences may arise when previously unused services are deployed. This impact will need to be clarified when the financial framework is being developed.

### **THREE-YEAR CAPITAL EXPENDITURES PROGRAM**

As mentioned earlier, we indicated in our 2009 report that we were not able to obtain documentation to establish the amount that had been allocated to the TCEP.

During this follow-up, we analyzed the variances in this account and concluded that the total authorized credits grew from \$33 million to \$39.3 million. The increase is in large part attributable to the capitalization of the CET's \$5.7-million operating expenses.

The use of these credits corresponds to \$17.6 million in expenses and \$635,000 in commitments, primarily associated with:

- CET operating expenses for 2008 through 2011
- installation expenses for new network outlets
- cost of acquiring IP telephones
- expenses of taking over network outlets from TELUS

We feel that, based on the nature of the expenses recorded to date, the fact that the use of these credits has been strictly limited to capitalizable expenses and the migration status, the \$21-million balance that is currently available in the account is too high, considering the anticipated project expenses. It will therefore be necessary to establish in the financial framework whether the TCEP should be reduced accordingly, either by recommending a reduction in the authorized funds or by proposing that they be transferred to the operating budget.

## **BENCHMARKING**

In order to ensure bid prices are in line with market prices, the city's specifications contain a clause that indicates that once a year, on the anniversary date of the contract, it is entitled to request an external comparative cost analysis of services provided. With this clause, the city wanted to ensure it could benefit from a reduction in costs in the event market prices fell below the winning bidder's prices, particularly as a result of declining technology prices.

A benchmarking clause in these types of contracts is clearly a good idea. However, it can present a number of application challenges. For one, a disagreement arose between the city and TELUS about the scope of the first benchmarking operation in 2011 and how binding the benchmarking firm's recommendations would be in relation to the unit prices indicated in the contract.

Consequently, the city may not gain the additional assurance it initially hoped to have when it incorporated this benchmarking clause into the specifications.

### 3.3.C. Conclusions

**We consider that implementation of Recommendation #5 has not been completed.**

Delay in completing the financial framework can be mainly explained by the difficulty of establishing reliable projections for project costs before the migration and takeover process is complete, especially as the STI's current management has encountered a number of stumbling blocks and challenges resulting from several major flaws in the telecommunications services outsourcing project from the outset. Moreover, the STI was required to devote a great deal of effort to developing the structure of the framework and compiling data with limited resources and minimal support from the Service des finances.

Our follow-up also confirmed the findings contained in our 2009 report on the main drivers of cost increases as well as decreases in estimated savings. These include significant variances in the quantities listed in contract price schedules, parties' differing interpretations of contract specifications and the omission of management expenses, in particular expenses related to the CET.

Other factors that have had or may have significant repercussions on the financial framework have emerged since our 2009 audit. The needs streaming operation initiated by the STI led to a substantial reduction in costs that would have otherwise been payable under the terms of the contracts. The potential activation of as-yet unused services could have the opposite effect in terms of spending, and the difficulties in applying the benchmarking clause may prevent the city from enjoying guaranteed competitive pricing throughout the duration of the contracts. Lastly, the surplus in the TCEP account will in all likelihood be re-credited to the operating budgets of the business units.

**We realize that it is preferable to wait for the migration and takeover process to be completed before finalizing the financial framework. However, the outline for**

**this framework can be established in the meantime.** We believe that this outline must encompass all cost factors associated with authorities' adoption of the decision-making summary for the telecommunications services outsourcing project so the use of authorized funds can be carefully tracked and reported.

These factors include services that were initially charged under the terms of the contracts, requests for changes and additions to these services, issue-solving costs, services provided by third-party suppliers initially included in the outsourcing project and management expenses for the project.

### 3.4. MANAGEMENT FRAMEWORK FOR CONTRACTS

#### 3.4.A. Original Recommendations from the 2009 Auditor General's Report

6. *We recommend that the Direction des systèmes d'information of the Service des immeubles et des systèmes d'information [now the STI] immediately develop its management framework to manage outsourcing contracts in the operational phase. Specifically, it should:*
- *identify activities to undertake, according to the nature and objectives of these contracts;*
  - *identify gaps between the skills needed to undertake these operations and the available resources;*
  - *identify and design the controls to be instituted to ensure compliance with the service levels, security requirements and billing rules for services provided to client units;*
  - *establish, in conjunction with the Service des finances, the operating budget for this organizational framework and incorporate it into the corresponding financial framework.*

#### 3.4.B. Findings

As the migration toward the new service supplier was still in progress at the time of our follow-up, the temporary structure of the CET was still in place.

However, some work has been done on setting up the organizational structure for those who will eventually take over from the temporary CET. As a result, the permanent CET should gradually become active in early 2012, as migration operations progress.

At the time of our follow-up, 14 permanent positions had been confirmed in the 2012 budget. In addition, the permanent CET structure includes five temporary positions to ensure oversight, prepare future calls for tenders and support the problem-solving process. This structure also includes various matrix-type positions that will be funded by the other STI divisions as a result of the city's recovery of firewall rule management (see section 3.8 for further details). However, we understand that the CET's final organizational structure had not been defined at the time of our follow-up, owing in part to the budget cuts imposed on the STI for 2012.

In our 2009 report, we indicated that implementing a new management framework would require the development or acquisition of new expertise, since it would entail changing from a method of managing operations to a method of managing outsourcing contracts. We believe that the STI's commitment and efforts in terms of the migration and rollout of the new management framework will be key to raising the level of outsourcing knowledge among in-house resources, thereby reducing the risks associated with lack of expertise.

Moreover, efforts have been undertaken, in conjunction with TELUS, to review the current governance model, transforming it to a "post-implementation" model, which will involve revamping existing committees and creating new ones, including:

- Performance Management Committee, whose mission will be to ensure that operational results are consistent with performance and continuous improvement objectives
- Contract Oversight Committee, whose mission will be to ensure compliance with contractual provisions and requirements and to update contract terms to better meet the city's changing needs
- Network and Telephony Evolution Committee, whose mission will be to guide technological advancements, track and advise on technology-related developments and monitor network and telephony architecture, including security

Implementation of the governance model had not yet started at the time of our follow-up.

The city also indicated in its contract specifications that it wished to review its operational processes, based on ITSM<sup>4</sup> IT service management best practices. Accordingly, the specifications contained a non-exhaustive list of processes that the winning bidder was required to include in the services it delivers to the city.

TELUS, in conjunction with the city, therefore developed a compendium of operational processes and procedures (OPPs), including the 15 OPPs that will be used in the post-implementation phase.

The development of the 15 OPPs did, however, require a major commitment of city resources and experienced repeated delays. At the time of our follow-up, 14 of the 15 OPPs had been approved by the city, and from our understanding, some of these were only partially implemented because of ongoing modifications.

The city also wanted TELUS to provide metrics, reports and score cards to ensure that the required levels of service were being respected. However, TELUS has yet to produce tools that correspond to the requirements outlined in the specifications. As a result, the city has not been able to effectively administer its telephony and data transmission contracts since they were awarded.

The city had also asked TELUS to set up an inventory and configuration management database (ICMD) accessible to key city employees in real time and updated regularly by TELUS. This database is an essential element in ensuring the effectiveness of the 15 OPPs to be used in the post-implementation phase.

Among the functions of the database are:

- provide benchmarking information to assist with evaluation, change planning and deployment, and production
- help manage capacity

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<sup>4</sup> Information Technology Service Management.

- help incident and problem resolution
- evaluate the impacts of incidents and problems to determine which services or clients are affected
- improve management of communications and resources to be implemented when an incident occurs
- play a key role in terms of managing TELUS's invoices for services provided to the various city units, in accordance with the terms of the telephony and data transmission contracts

We noted, however, that TELUS has not yet produced a database that meets the criteria set out in the city's specifications.

In our 2009 report, we also indicated that the city wished to set up a model that would enable it to pass on telecommunications costs to its business units based on a shared services centre (SSC) model. However, inadequate definition of the billing model in the specifications caused the city and TELUS to interpret this need differently. As a result, TELUS did not submit a billing model consistent with the city's requirements, and this delayed implementation of the user-payer model.

During our follow-up, we noted that in early 2011 TELUS set up an online tool to give client units access to their billing details. However, ongoing misunderstandings occurred between the city and TELUS about the required deliverables for this tool, in particular those related to:

- a feature that allows users to approve invoiced items
- the possibility of developing various access profiles within the same client unit
- the possibility of viewing network outlet invoicing details for each client unit

Given the delays and other obstacles encountered by TELUS in meeting these needs, the CET was required to engage in the labour-intensive task of manually sorting through the details for each network outlet on a unit-by-unit basis so that it could use this information to implement the user-payer model. The user-payer model needed to be rolled out for 2012, because the STI's budget will no longer have the required budgets.

Considering the above, the STI decided to withhold amounts for per-outlet service (network outlets) from its monthly payments, since TELUS had not provided the management tools as required in the specifications.

We are concerned about the sustainability of this tool once the current contracts have expired, given the efforts the city has invested in its implementation and the fact that the tool is administered by TELUS rather than city.

#### **3.4.C. Conclusions**

**We consider that the actions that have been undertaken to implement the processes and the organizational structure for contract management purposes are in line with Recommendation #6.**

**We also consider that STI efforts to identify skill-related gaps are in line with Recommendation #6.** The STI will have to pay careful attention to safeguarding the expertise acquired in this regard, given the anticipated staff departures in the coming months.

**However, since TELUS has not yet provided the management tools required in the contract specifications, and since the permanent CET's budget authorizations are not yet completed or incorporated into the financial framework, we do not consider that Recommendation #6 has been completed.**

### **3.5. CONTINUITY AND EVOLUTION OF THE NETWORK**

#### **3.5.A. Original Recommendations from the 2009 Auditor General's Report**

- 7. We recommend that the Direction des systèmes d'information of the Service des immeubles et des systèmes d'information [now the STI] institute a process for watching and monitoring the evolution of the network and related equipment to ensure their survivability.*

### 3.5.B. Findings

As we mentioned in our 2009 annual report:

*“The specifications included in the outsourcing contracts state that the city wishes to have an evolving network that will meet its current and future needs. The winning bidder is responsible for installing, maintaining and replacing the network’s equipment at the bidder’s own expense for the duration of the contract and ensuring that the city owns the equipment even if it is housed at the bidder’s facilities.”*

We also mentioned that the winning bidder would become the principal contractor for the network’s management and evolution. In this respect, our report emphasized the necessity for the city to have monitoring ability to maintain a current inventory of installed or replaced equipment and develop a detailed protocol for the transfer of assets when contracts end. We also pointed out, however, that these mechanisms had not yet been implemented.

In response to this need, the specifications required the supplier to maintain an up-to-date ICMD of installed and replaced equipment, which the city could access in real time. However, our follow-up showed that TELUS has still not provided city representatives with access to any such ICMD.

We should point out, though, that TELUS recently, in an endeavour to comply with these requirements, submitted Excel files containing the list of city equipment managed by TELUS as well as the services used by the city. We do not feel these files are sufficient to meet the requirements outlined in the city’s specifications, i.e., an up-to-date, real-time database with detailed information on equipment updates. Without this information, the reports produced by TELUS will likely be of little use.

Because TELUS has failed to deliver a ICMD, the CET has been forced to develop an in-house database to monitor network outlet management.

The Network and Telephony Development Committee will also have to track technology-related developments and monitor network and telephony architecture. At the time this report was written, this committee had not yet begun its work.

### 3.5.C. Conclusions

Although some actions have been taken to implement the required processes, **we consider that Recommendation #7 has not been completed**, given the lack of a ICMD, which is an essential component.

## 3.6. DISASTER RECOVERY PLANS

### 3.6.A. Original Recommendations from the 2009 Auditor General's Report

8. *We recommend that the Direction des systèmes d'information of the Service des immeubles et des systèmes d'information [now the STI] obtain from TELUS Québec the required disaster recovery plan as per the specifications and a promise that this plan [can] be tested annually.*

### 3.6.B. Findings

As we mentioned in our 2009 annual report, *“the winning bidder must demonstrate that it has the facilities and disaster recovery plan to ensure 24/7 operation of the telecommunications and telephony services that the city requires.”* However, at that point, the city had not obtained the disaster recovery plans as indicated in the specifications, and there were no tests to be checked. By the end of our follow-up, there was still no evidence of either.

Moreover, in order to minimize the need to resort to a disaster recovery plan, the city must also adopt an operational continuity plan that includes mitigation measures to be instituted for critical operations.

In a previous audit report, we recommended that a guideline on this issue be produced and adopted by the Direction générale. In response to this recommendation, the city's Comité de sécurité de l'information developed a guideline on IT service continuity management. This was submitted to the Direction générale for approval in April 2009, but it has yet to be ratified.

The lack of a guideline in this regard has done little to foster awareness among the administrative units about the necessity of adopting a continuity plan for their IT services.

In the past, the Centrex landline services provided by the previous supplier had always been considered secure and reliable because they ensured continuity of service during a power outage. However, the migration of the city's telephony system to TELUS's technology solutions could have an impact on the continuity of this service, especially given that IP telephony service is dependent on the data transmission network.

In order to help city units assess the consequences related to the migration to TELUS's technology solutions and enable them to identify critical functions for continuity planning purposes, the CET has prepared a supporting document that outlines risks involved in migrating to TELUS systems and IP technology:

- For Centrex telephony services
  - There is no redundancy for the city's TELUS equipment deployed at the local level.
  - The Centrex equipment deployed at the local level by TELUS can operate on a stand-alone basis in the event of an extended power outage, but only for a limited time, and this time can vary.
- For IP telephony
  - IP telephony is highly vulnerable to power outages or serious interruptions in the data transmission network.
  - There are many more potential points of system failure (e.g., network outlets, local switches, links serving the city's sites).
  - The CET does not have any metrics or background information on the frequency or duration of data transmission infrastructure downtime, or the operational repercussions of a slowdown or deterioration in service.

According to this document, the units must develop a business continuity plan to be in a position to fulfill their needs in the event of an interruption affecting their telephony or data transmission systems. This plan should strike a balance between the risk of an

incident and its potential operational consequences and the costs related to the deployment of a continuity solution.

However, this document was not circulated to the various units prior to their migration. The choice of technology solutions offered by TELUS, especially in terms of migrating to IP telephony, was presented more from an angle of cost-effectiveness than one of risks of system failure or interruption in telephone services.

Based on these findings, we sought out additional information on the migration process for activities and administrative units we considered to be critical.

We therefore focused on:

- SSIM
- SPVM
- Centre d'urgence 911

In response to SSIM requests, the CET issued an addendum to the risk and incidence analysis that had been produced. According to this addendum, the SSIM can, after an evaluation, retain its Centrex copper pairs for sites hosting critical business functions related to operational continuity.

The SPVM did not express any particular need in terms of the continuity of its telephony service. However, it is important to note that the SPVM decided not to adhere to the “per-outlet service” model, which means that it will not be migrating to an IP telephony system.

Moreover, both the SSIM and SPVM are equipped with radiocommunication devices, which minimizes the impact of an interruption in telephone service on their operational activities.

As for the Centre d'urgence 911, all lines used to route emergency calls to 911 were excluded from the call for tenders, in accordance with the law. In addition, it was decided for compatibility purposes that “administrative” lines used by 911 operators to

communicate with the emergency response network would continue to be managed by the former supplier.

Throughout this section, we have discussed the risks involved in IP telephony, including the fact that service is dependent on the availability of the data transmission network. Activity reports issued by TELUS for August, September and October show a high number of electrical-related incidents that affected the data transmission network. However, there is no information in these reports on the scope or duration of these incidents.

One of the methods used to compensate for electrical failures is to equip network devices with an uninterruptible power supply (UPS). A UPS, usually a combined battery and inverter, provides the electricity required to power the equipment it is connected to and protect it against voltage fluctuations from the electrical distribution network.

This problem was an issue for the city and TELUS. TELUS has agreed to study the effect of power outages on service availability. In the event of recurring outages, power fluctuations or electrical surges that compromise equipment or service, TELUS may install UPSs. In such a scenario, the UPSs would be supplied, installed and maintained by TELUS. Based on the information we obtained, TELUS has not yet carried out this study.

Lastly, IP telephony and voice message solutions must meet the performance requirements outlined in the specifications, i.e., provide a very high availability ( $\geq 99.99\%$ ).

The stability of these solutions is a point of concern for us. There were four major service interruptions in the IP telephony system in 2011, and five major interruptions in the voice mail system (two in 2010 and three in 2011). We consider an interruption to be major when the users in a city department are affected.

### 3.6.C. Conclusions

Based on our follow-up, **we consider that Recommendation #8 has not been completed**, in that TELUS has not demonstrated it has disaster recovery plans in place that comply with the requirements in the contract specifications and **the city has not received confirmation that disaster recovery plan tests can be checked annually**.

In terms of operational continuity, we do not feel that the CET has done enough to educate the administrative units about the new risks involved in migrating the city's telephone service to TELUS's technology solutions. This is especially important given that one of the project objectives is to encourage accountability and empowerment among client units.

However, our follow-up did confirm that migration-related risks of certain activities we deemed critical were less of a cause of concern than we had originally thought, given the decisions made by the business units in question.

## 3.7. EMERGENCY ACTION PLAN

### 3.7.A. Original Recommendations from the 2009 Auditor General's Report

9. *We recommend that the Direction des systèmes d'information of the Service des immeubles et des systèmes d'information [now the STI], together with the Centre de sécurité civile, set up a coordination plan in conjunction with TELUS Québec to avoid any delays in the execution of the plan for emergency measures when needed.*

### 3.7.B. Findings

In response to Recommendation #9, the STI produced a document entitled *[TRANSLATION] Centre de services – Telecommunications Emergency Measures*, which contains the processes adhered to by the Centre de services (CS) and emergency measures escalation lists for all stakeholders who could potentially be affected.

This document was validated by the Centre de sécurité civile (CSC). There is still a “grey” zone, however, that could cause delays in the execution of the emergency action plan. Given the respective service areas of the STI and TELUS, the latter being defined by its outsourcing contracts, it seems that the CET can step in only when the central departments or the boroughs of the former Ville de Montréal are involved, whereas the CSC is responsible for coordinating emergency measures for the entire island, including the reconstituted municipalities and the boroughs created from the former suburban municipalities.

When the emergency action plan is executed, the CSC delegates emergency response tasks to various stakeholders, including the STI, which is responsible for computer and telecommunications support. Since the municipal demergers, however, although the STI has retained the responsibility for certain agglomeration-oriented activities, it no longer has the power to step in where the reconstituted municipalities and former suburban municipalities are concerned.

This could potentially interfere with the smooth execution of the emergency action plan in certain circumstances, e.g., if a related municipality is involved.

### **3.7.C. Conclusions**

**We consider that Recommendation #9 has been completed, since an emergency escalation procedure within the scope of TELUS contracts.**

We nevertheless reiterate the importance of holding a surprise drill to verify the effectiveness of the system.

**As for the problem of the STI’s limited power to respond to requests made by the CSC, although this issue exceeds the scope of this mandate, we feel that this situation should be looked into by the Direction générale in conjunction with the authorities concerned, in order to prevent any misunderstandings that could compromise the effective execution of the emergency action plan.**

### 3.8. MANAGEMENT OF PROJECT SECURITY

#### 3.8.A. Findings

In our 2009 report, we referred to an issue related to TELUS's taking charge of data transmission contract security aspects. An agreement was concluded by the TELUS-city steering committee in November 2010 in this regard. Given how significant the impacts associated with the resolution of this issue are, we decided to include it in this follow-up operation.

Diverging positions and interpretations of the two parties' responsibilities emerged at the due diligence phase. On one hand, the city stated in its specifications that the winning bidder would be the main entity in charge of operational security, thereby confirming the city's intention to outsource its network security management functions. On the other hand, TELUS raised the issue that the specifications were not sufficiently explicit in this regard and that there was room for interpretation. Specifically, TELUS maintained that setting and changing firewall rules had not been requested by the city, and this added functionality would require an amendment to the contract that it assessed at \$4.7 million.

A second element also came into play. During the question-and-answer session following the launch of the call for tenders, the city indicated that it had nine firewall servers that were to be taken over by the winning bidder. However, due diligence revealed the city actually had 18 servers. This difference alone cost the city an estimated \$1.6 million.

As a result, the main focus of these negotiations became financial, as this excerpt from the agreement indicates: *[TRANSLATION] "All adjustments shall be carried out without any extra disbursements between the two parties."* Under the terms of this agreement, TELUS committed to provide guidance in the form of security specialists to assist the city in maintaining and developing its firewall architecture. The agreement also indicated that TELUS is responsible for the management of all of the city's firewall servers, including:

- monitoring operations

- server and software upgrades
- smooth running of the software and operating system

However, the city agreed to take back responsibility for setting and changing firewall rules and for maintaining the necessary staff to carry out these tasks. In assuming this responsibility, we feel that the city became mired down in the daily management of an activity (the means) it sought to outsource. This decision could have far-reaching consequences, since it also means that the city potentially accepts responsibility in the event of a security-related incident or the non-compliance with levels of service in which security rules may be involved. Penalties and redress considerations could become more complicated as a result.

In addition, the city is still responsible for documenting and approving security architecture. The city, however, does not possess any documentation in this regard, which means that security problems are handled on a case-by-case basis, with no overall perspective and no assurance of consistency in the way subsequent incidents are handled.

In order to ensure that all consequences of the agreement had been considered, the city hired an external firm in June 2011 to analyze the feasibility of sharing operational tasks with TELUS.

The firm's report confirmed that this approach is feasible, but it indicated that the city was exposing itself to security risks, because the firewall rules had been developed with a client service mindset rather than in the context of a strategy aimed at safeguarding the integrity of the city's information systems and protecting its assets.

The firm stated that this situation led to a less-than-optimal approach to managing firewall rules, the direct consequence of which was the introduction of a large number of individual rules (more than 2,700), which is two to three times more than what is generally found in an environment of this type.

The STI has acknowledged the problem, given it due consideration and initiated a process to retain the services of a firm specializing in corporate governance and management controls related to information security.

### 3.8.B. Conclusions

We are strongly in favour of the STI decision to hire a firm to review the governance and management aspects of information security.

**Moreover, given the security-related responsibilities the city is now required to deal with, we feel that the STI should immediately establish a network security architecture to address the problems associated with the management of firewall rules, among other things.**

## 4. OVERALL CONCLUSIONS

Table 5 summarizes the status of the nine major recommendations as of the end of our follow-up.

**Table 5—Status of Major Recommendations**

Recommendation	Under way	Completed
1. Prioritization of outsourcing objectives – Elements under the Direction générale’s purview		*
2. Prioritization of outsourcing objectives – Elements under the STI’s purview		✓
3. Project governance – Elements under the Direction générale’s purview	✓	
4. Project governance – Elements under the STI’s purview		✓
5. Project’s financial framework	✓	
6. Management framework for contracts	✓	
7. Continuity and evolution of the network	✓	
8. Disaster recovery plans	✓	
9. Emergency action plan		✓

\* Withdrawn; not carried out on a timely basis.

There has been significant delay in implementing these recommendations, which should have been completed by the time we resumed our follow-up in the fall of 2011. From our

perspective, this delay is attributable in part to the fact that the STI has encountered a number of stumbling blocks and challenges resulting from several major flaws in the telecommunications services outsourcing project from the outset. In addition, TELUS has still not produced all of the management tools and deliverables required in the contract specifications so that the city can measure the quality of the services provided, be reassured about the soundness of the disaster recovery plans in place and monitor network developments. These points are all essential to the successful implementation of recommendations #5, #6, #7 and #8.

We did find, however, that the STI has made great strides in rectifying the situation we encountered during our 2009 audit and we consider their progress to be satisfactory in many regards.

We feel that three key issues must be resolved to ensure the effective management of the outsourcing project for telecommunications services.

First, from a governance point of view, without a current prioritized list of strategic objectives, it is impossible to determine whether the consensus and decisions embraced by the JIC are in line with a strategic, consistent vision of telecommunications services within the city. We therefore believe that there is still a significant risk that telecommunications services cannot be optimized from a financial or operational perspective, which will be particularly worrisome when the current contracts expire and it is time to prepare the next set of specifications.

Further to the governance issue, the fact that the Direction générale has not implemented a formal framework for reporting to authorities, combined with the difficulties associated with developing the financial framework, means that municipal authorities are only partially aware of how the more than \$100 million authorized for this project is being used. Similarly, they are only partially aware of the status of the corresponding issues and risks.

Given the various cost increases that have arisen because of variances in the quantities indicated in the contract specifications, it is troubling that the elected officials who

authorize these funds are still uninformed as to their use three years after these contracts came into effect.

Finally, so long as TELUS does not produce the management tools and disaster recovery plans required in the contract specifications, we feel that the city is not in a position to ensure the compliance of the outsourced contracts or the efficient, cost-effective delivery of its telecommunications services.

## 5. COMMENTS FROM THE BUSINESS UNITS

### 5.1. SERVICE DES TECHNOLOGIES DE L'INFORMATION

*[TRANSLATION] “We reviewed the [TRANSLATION] Outsourcing Project for Telecommunications Services—Follow-Up Audit Report. Although, overall, we agree with the contents of this report, we would like to take advantage of this opportunity to make a few comments.*

*These comments are not intended to contradict the findings of the report, simply to slightly amend them and provide additional information to shed further light on the context of the telecommunications services implementation project.*

**Reference: Introduction, D) Service Quality and Reliability:**

*‘ . . . several major interruptions in IP telephony and voice mail services in 2010 and 2011 have cast doubt on the stability of these solutions.’*

*Our work on the infrastructure system in 2011 has improved the situation compared with 2010. And some important upgrades were made in early 2012, which lead us to believe that these solutions will be much more stable in future.*

**Reference: The Project's Financial Framework, section 3.3:**

We reviewed the initial financial framework to monitor the items that may modify it, including:

- initial scope of the contract, compared with the modified scope (central departments, boroughs, select paramunicipal corporations)
- user-payer principle for each of the services included in the contract
- separation of operating and capital expenses
- separation of city units and associated bodies
- reassessment of projections based on updated inventories
- refunds for third-party expenses from TELUS

In addition, in March 2012, we updated the financial framework for the contracts, based on the most recent inventories, and revised usage projections. As a result, we feel that the authorized budget is sufficient for the wireline services contract, with a favourable variance of more than \$5 million. However, for the data transmission contract, there is an unfavourable variance of almost \$3 million, which can largely be attributed to the underestimation of the number of outlets in the contract specifications and the SPVM's custom connections.

Service des finances management, in its response to the auditor general and the city manager, will include CET labour costs in the financial framework for the contracts.

Should services that are included in the specifications but are as yet unused be introduced at a later date, it will not automatically lead to disputes and financial repercussions. Most of the impacts of the delayed implementation of a new service will revolve around the need to update the services outlined in the specifications to account for recent technological advances.

An initial benchmarking operation was completed in December 2011. Based on the items included in the process, the city was able to confirm that most of the bid prices currently in effect meet the requirements in the contract, i.e., are not more than 15% higher than the reference market. For those items that do exceed the 15% mark, the city will obtain a slight reduction in price (evaluated at \$1,688 per month).

**Reference: Disaster Recovery Plans, section 3.6:**

*Section 3.6 refers to a high number of incidents related to power supply that have affected the data transmission network, although no information on their scope or duration is provided. Despite the lack of detailed information about these incidents, the city can appreciate the number of electrical-related incidents and their repercussions. The city has made TELUS responsible for systematically reporting incidents of this nature. As soon as an incident affects a building, TELUS is to record the resulting information for each piece of equipment. For example, for a power outage that occurred at 4101, rue Sherbrooke Est, TELUS reported 18 incidents, since the outage affected 18 separate pieces of equipment (switches, severs, etc.). Furthermore, many short-lived outages have minimal repercussions on the network and do not compromise quality of service.”*

## **5.2. DIRECTION GÉNÉRALE**

*[TRANSLATION] “We had the opportunity to talk to the head of the STI about the [TRANSLATION] Outsourcing Project for Telecommunications Services—Follow-Up Audit Report. He told us that by and large he agreed with your analysis and mentioned he had shared his comments with you.*

*Concerning the two recommendations you made to the Direction générale, we would like to reiterate that the adoption of the Cadre de gouvernance des projets et des programmes de gestion d’actifs municipaux, which the STI is implementing diligently, is designed to promote a clear understanding of the projects’ goals and the rigorous governance of each initiative.*

*As for the city’s optimization projects, the executive committee is aware of the objectives and savings telecommunications contracts pursue and, in March 2011, mandated the STI to continue setup operations, including those related to IP telephony. We therefore feel that the municipal administration is adhering to the management approach as implemented.*

*As you mention in your follow-up report, the head of the STI has ensured that the various city units have a clear understanding of the aims of the telecommunications contracts and agree to abide by them.*

*This issue has been brought up at the city manager's committee meeting on several occasions, and the STI has submitted various communications to department and borough administrations, as well as those responsible for telephony and data transmission services, to help ensure these objectives are met.*

*As for reporting, we can confirm that the head of the STI has submitted regular reports on the status of the project to the Direction générale and on more than one occasion to the executive committee.”*

### **5.3. SERVICE DES FINANCES**

**Reference: The Project's Financial Framework, section 3.3:**

*[TRANSLATION] “We will work with the STI to finalize the financial framework, based on the most recent information. Once this framework has been completed, it will be presented to the city manager, with whom the terms and schedule for presenting it to authorities will be decided.”*

## **6. COMMENTS FROM THE AUDITOR GENERAL**

**We noted that the comments made by the Direction générale, the STI and the Service des finances indicate their agreement with the contents of our audit follow-up report, which focused on the situation as of November 30, 2011.**

**However, in order to avoid any ambiguity in the understanding of the financial framework for the outsourcing project for telecommunications services, it is important to make the following clarifications, given the above-mentioned comments in this regard by the STI. In its comments, the STI confirmed:**

***“In addition, in March 2012, we updated the financial framework for the contracts, based on the most recent inventories, and revised usage***

*projections. As a result, we feel that the authorized budget is sufficient for the wireline services contract, with a favourable variance of more than \$5 million. However, for the data transmission contract, there is an unfavourable variance of almost \$3 million, which can largely be attributed to the underestimation of the number of outlets in the contract specifications and the SPVM's custom connections."*

We understand that the cost projections in these contracts put estimated net savings at \$2 million. It is important to stress, however, that these savings include the use of the 20% contingency reserve for additional goods and services outlined in the authorized budget, which can be broken down as follows:

Table 6—Authorized Budget<sup>1</sup>

Contract	Amount (including taxes)	20% contingency reserve (including taxes)	Total (including taxes)
Data transmission	\$47,483,284	\$9,496,656	\$56,979,940
Wireline telephony	\$35,000,790	\$7,000,158	\$42,000,948
<b>Total</b>	<b>\$82,484,074</b>	<b>\$16,496,814</b>	<b>\$98,980,888</b>

<sup>1</sup> Excluding cellular telephone services.

The STI also commented that:

*"Service des finances management, in its response to the auditor general and the city manager, will include the CET labour costs in the financial framework for the contracts."*

As we pointed out in our follow-up report, the outline for the financial framework must encompass all cost factors associated with authorities' adoption of the decision-making summary for the telecommunications services outsourcing project so the use of authorized funds can be carefully tracked and reported.

These factors include services that were initially charged under the terms of the contracts, requests for changes and additions to these services, issue-solving costs, services provided by third-party suppliers initially included in the outsourcing project and management expenses for the project.

In conclusion, based on the STI's updated contract cost projections and other factors such as \$17.8 million for the CET, which must be taken into account in the financial framework, we feel the budget as initially authorized will clearly be insufficient to cover the project costs.

# VI. Appendices



Vérificateur général  
de la Ville de Montréal



# VI.1. Appendix 1– Excerpts from the *Cities and Towns Act*



**Vérificateur général**  
de la Ville de Montréal



## VI. APPENDICES

### VI.1. APPENDIX 1—EXCERPTS FROM THE *CITIES AND TOWNS ACT*

R.S.Q., chapter C-19  
Updated to December 31, 2011

#### IV.1. — *Chief auditor*

2001, c. 25, s. 15.

Chief auditor. **107.1.** The council of every municipality having 100,000 inhabitants or more shall have an officer called the chief auditor.

2001, c. 25, s. 15.

Term. **107.2.** The chief auditor shall, by a resolution approved by a two-thirds majority of the votes of the members of the council, be appointed for a term of seven years. The term may not be renewed.

2001, c. 25, s. 15.

Ineligibility. **107.3.** In no case may the following persons act as chief auditor:  
(1) a member of the council of the municipality and, where applicable, of a borough council;  
(2) the associate of a member mentioned in subparagraph 1;  
(3) a person who, personally or through an associate, has any direct or indirect interest in a contract with the municipality or a legal person referred to in paragraph 2 of section 107.7.

Disclosure of interest. The chief auditor shall disclose in every report produced any situation that could cause a conflict between the chief auditor's personal interest and duties of office.

2001, c. 25, s. 15.

Inability or vacancy. **107.4.** If the chief auditor is unable to act, or if the office of chief auditor is vacant, the council shall,  
(1) not later than at the sitting following the inability to act or the vacancy, designate a person qualified to replace the chief auditor, for a period of not more than 180 days;

- (2) not later than at the sitting following the inability or the vacancy, or not later than at the sitting following the expiry of the period fixed under paragraph 1, appoint a new chief auditor in accordance with section 107.2.

2001, c. 25, s. 15.

Expenses. **107.5.** The budget of the municipality shall include an appropriation to provide for payment of a sum to the chief auditor to cover the expenses relating to the exercise of the chief auditor's duties.

Amount of appropriation. Subject to the third paragraph, the appropriation must be equal to or greater than the product obtained by multiplying the total of the other appropriations provided for in the budget for operating expenses by

- (1) 0.17% where the total of those appropriations is less than \$100,000,000;
- (2) 0.16% where the total of those appropriations is at least \$100,000,000 and less than \$200,000,000;
- (3) 0.15% where the total of those appropriations is at least \$200,000,000 and less than \$400,000,000;
- (4) 0.14% where the total of those appropriations is at least \$400,000,000 and less than \$600,000,000;
- (5) 0.13% where the total of those appropriations is at least \$600,000,000 and less than \$800,000,000;
- (6) 0.12% where the total of those appropriations is at least \$800,000,000 and less than \$1,000,000,000;
- (7) 0.11% where the total of those appropriations is at least \$1,000,000,000.

Exception. Where the budget of the municipality provides for appropriations for operating expenses related to the operation of a system of production, transmission or distribution of electric power, 50% only of those appropriations shall be taken into account in establishing the total of the appropriations referred to in the second paragraph.

2001, c. 25, s. 15; 2001, c. 68, s. 5.

Duties. **107.6.** The chief auditor is responsible for the application of the municipality's policies and standards relating to the management of the human, material and financial resources assigned to auditing.

2001, c. 25, s. 15.

Duties. **107.7.** The chief auditor shall audit the accounts and affairs

- (1) of the municipality;
- (2) of every legal person
  - (a) that is part of the reporting entity defined in the municipality's financial statements;

- (b) of which the municipality or a mandatary of the municipality appoints more than 50% of the members of the board of directors; or
- (c) of which the municipality or a mandatary of the municipality holds more than 50% of the outstanding voting shares or units.

2001, c. 25, s. 15; 2010, c. 18, s. 20.

Audit.	<p><b>107.8.</b> The audit of the affairs and accounts of the municipality and of any legal person referred to in paragraph 2 of section 107.7 comprises, to the extent considered appropriate by the chief auditor, financial auditing, auditing for compliance of their operations with the Acts, regulations, policies and directives, and auditing for value-for-money.</p>
Audit.	<p>The audit must not call into question the merits of the policies and objectives of the municipality or legal persons referred to in paragraph 2 of section 107.7.</p>
Documents and information.	<p>The chief auditor in the performance of his duties is authorized</p> <ul style="list-style-type: none"> <li>(1) to examine any document concerning the affairs and accounts relating to the objects of the audit;</li> <li>(2) to require from any employee of the municipality or any legal person referred to in paragraph 2 of section 107.7 all information, reports and explanations the chief auditor considers necessary.</li> </ul> <p>2001, c. 25, s. 15; 2001, c. 68, s. 6.</p>
Audit.	<p><b>107.9.</b> Any legal person receiving an annual subsidy from the municipality of at least \$100,000 is required to have its financial statements audited.</p>
Copy.	<p>The auditor of a legal person not referred to in paragraph 2 of section 107.7 that receives an annual subsidy from the municipality of at least \$100,000 shall transmit to the chief auditor a copy of</p> <ul style="list-style-type: none"> <li>(1) the annual financial statements of the legal person;</li> <li>(2) the auditor's report on the statements;</li> <li>(3) any other report summarizing the auditor's findings and recommendations to the board of directors or the officers of the legal person.</li> </ul>
Documents and information.	<p>That auditor shall also, on the request of the chief auditor,</p> <ul style="list-style-type: none"> <li>(1) place at the disposal of the chief auditor any document relating to the auditor's audit and its results;</li> <li>(2) provide all information and explanations the chief auditor considers necessary concerning the auditor's audit and its results.</li> </ul>

Additional audit.	<p>Where the chief auditor considers that the information, explanations and documents provided by an auditor under the second paragraph are insufficient, the chief auditor may conduct such additional audit as he considers necessary.</p> <p>2001, c. 25, s. 15.</p>
Audit.	<p><b>107.10.</b> The chief auditor may conduct an audit of the accounts or documents of any person having received financial assistance from the municipality or from a legal person referred to in paragraph 2 of section 107.7, as regards the use made of such assistance.</p>
Accounts and documents.	<p>The municipality and the person having received the financial assistance are required to furnish to or place at the disposal of the chief auditor any accounts and documents that the chief auditor considers relevant to the performance of the chief auditor's duties.</p>
Information.	<p>The chief auditor is authorized to require from any officer or employee of the municipality or from any person having received financial assistance any information, reports and explanations the chief auditor considers necessary to the performance of the chief auditor's duties.</p> <p>2001, c. 25, s. 15.</p>
Audit.	<p><b>107.11.</b> The chief auditor may conduct an audit of the pension plan or pension fund of a pension committee of a municipality or a legal person referred to in paragraph 2 of section 107.7 where the committee requests the chief auditor to do so with the approval of the council.</p> <p>2001, c. 25, s. 15.</p>
Duties.	<p><b>107.12.</b> The chief auditor shall, every time the council so requests, investigate and report on any matter within the competence of the chief auditor. In no case, however, may the investigation take precedence over the primary responsibilities of the chief auditor.</p> <p>2001, c. 25, s. 15.</p>
Report.	<p><b>107.13.</b> Not later than 31 August each year, the chief auditor shall transmit to the mayor, to be filed with the council at the first regular sitting following its receipt, a report presenting the results of the audit for the fiscal year ending on the previous 31 December and indicate any fact or irregularity the chief auditor considers expedient to mention, in particular in relation to</p> <ul style="list-style-type: none"> <li>(1) control of revenue including assessment and collection;</li> <li>(2) control of expenditure, including authorization, and compliance with appropriations;</li> <li>(3) control of assets and liabilities including related authorizations;</li> </ul>

- (4) accounting for operations and related statements;
- (5) control and safeguard of property owned or administered;
- (6) acquisition and utilization of resources without sufficient regard to economy or efficiency;
- (7) implementation of satisfactory procedures to measure and report effectiveness in cases where it is reasonable to do so.

Report. The chief auditor may also, at any time, transmit to the mayor or the chair of the board of directors of a legal person described in paragraph 2 of section 107.7 a report of the findings and recommendations that, in the opinion of the chief auditor, warrant being brought to the attention of the council or the board of directors, as applicable, before the transmission of the chief auditor's annual report. The mayor or the chair of the board of directors must file the report with the council or board, as applicable, at the first regular sitting or meeting following its receipt.

Copy of report. If the chief auditor transmits a report to the chair of the board of directors of a legal person described in paragraph 2 of section 107.7, the chief auditor must also transmit a copy of the report to the mayor of the municipality, to be filed with the council at the first regular sitting following its receipt.

2001, c. 25, s. 15; 2010, c. 18, s. 21.

Report. **107.14.** The chief auditor shall report to the council on the audit of the financial statements of the municipality and the statement fixing the aggregate taxation rate.

Report. In the report, which shall be transmitted to the treasurer, the chief auditor shall state, in particular, whether

- (1) the financial statements faithfully represent the municipality's financial position on 31 December and the results of its operations for the fiscal year ending on that date;
- (2) the effective aggregate taxation rate was fixed in accordance with Division III of Chapter XVIII.1 of the *Act respecting municipal taxation* (chapter F-2.1).

2001, c. 25, s. 15; 2006, c. 31, s. 16; 2010, c. 18, s. 22.

Report. **107.15.** The chief auditor shall report to the boards of directors of the legal persons referred to in paragraph 2 of section 107.7 on the audit of the financial statements before the expiry of the time within which they are to produce their financial statements.

Report.	In the report, the chief auditor shall state, in particular, whether the financial statements faithfully represent their financial position and the results of their operations at the end of their fiscal year.  2001, c. 25, s. 15.
Testimony.	<b>107.16.</b> Notwithstanding any general law or special Act, neither the chief auditor nor the employees under the chief auditor's direction or the professionals under contract may be compelled to give testimony relating to any information obtained in the performance of their duties or to produce any document containing such information.
Immunity.	Neither the chief auditor nor the employees under the chief auditor's direction may be prosecuted by reason of any act they have done or failed to do in good faith in the performance of their duties.
Immunity.	No civil action may be instituted by reason of the publication of a report of the chief auditor prepared under this Act or of the publication in good faith of an extract or summary of such a report.
Immunity.	Except on a question of jurisdiction, no recourse under article 33 of the Code of Civil Procedure (chapter C-25) or extraordinary recourse within the meaning of that Code may be exercised nor any injunction granted against the chief auditor, the employees under the chief auditor's direction or the professionals under contract acting in their official capacity.
Annulment.	A judge of the Court of Appeal, on a motion, may summarily annul any proceeding instituted or decision rendered contrary to the provisions of the first paragraph.  2001, c. 25, s. 15.
Audit committee.	<b>107.17.</b> The council may establish an audit committee and determine its composition and powers.
Audit committee of the urban agglomeration of Montréal.	Despite the first paragraph, in the case of the urban agglomeration of Montréal, the council must establish an audit committee composed of not more than 10 members appointed on the proposal of the mayor of the central municipality. Two of the committee members must be council members representing the reconstituted municipalities. Those two members shall take part in deliberations and votes of the committee on any matter related to an urban agglomeration power.

Opinions and information of the committee. In addition to the other powers that may be entrusted to it, the committee established in the case of the urban agglomeration of Montréal shall submit opinions to the urban agglomeration council on the requests, findings and recommendations of the chief auditor concerning the urban agglomeration. It shall also inform the chief auditor of the interests and concerns of the urban agglomeration council with respect to the audit of the accounts and affairs of the central municipality. On an invitation by the committee, the chief auditor or a person designated by the chief auditor may attend a sitting and take part in deliberations.

2001, c. 25, s. 15; 2008, c. 19, s. 11; 2009, c. 26, s. 19.

### V. — *External auditor*

2001, c. 25, s. 16.

External auditors. **108.** The council shall appoint an external auditor for not more than three fiscal years, except in the case of a municipality with a population of 100,000 or more, where the external auditor shall be appointed for three fiscal years. At the end of the term, the external auditor shall remain in office until replaced or reappointed.

Information sent to the Minister. If the external auditor appointed for a fiscal year is not the external auditor in office for the preceding fiscal year, the clerk shall inform the Minister of Municipal Affairs, Regions and Land Occupancy of the name of the new external auditor as soon as possible after his appointment.

R. S. 1964, c. 193, s. 104; 1975, c. 66, s. 11; 1984, c. 38, s. 11; 1995, c. 34, s. 12; 1996, c. 27, s. 12; 1999, c. 43, s. 13; 2001, c. 25, s. 17; 2003, c. 19, s. 110, s. 250; 2005, c. 28, s. 196; 2009, c. 26, s. 109.

Vacancy. **108.1.** If the office of the external auditor becomes vacant before the expiry of his term, the council shall fill the vacancy as soon as possible.

1984, c. 38, s. 11; 2001, c. 25, s. 18; 2003, c. 19, s. 111.

Duties. **108.2.** Subject to section 108.2.1, the external auditor shall audit, for the fiscal year for which he was appointed, the financial statements, the statement fixing the aggregate taxation rate and any other document determined by the Minister of Municipal Affairs, Regions and Land Occupancy by regulation published in the *Gazette officielle du Québec*.

Report. The auditor shall make a report of his audit to the council. He shall state in his report, in particular, whether  
 (1) the financial statements faithfully represent the municipality's financial position on 31 December and the results of its operations for the fiscal year ending on that date;

(2) the effective aggregate taxation rate was fixed in accordance with Division III of Chapter XVIII.1 of the *Act respecting municipal taxation* (chapter F-2.1).

1984, c. 38, s. 11; 1996, c. 2, s. 209; 1999, c. 43, s. 13; 2001, c. 25, s. 19; 2003, c. 19, s. 250; 2005, c. 28, s. 196; 2006, c. 31, s. 17; 2009, c. 26, s. 109.

Duties.

**108.2.1.** In the case of a municipality having 100,000 inhabitants or more, the external auditor shall audit, for each fiscal year for which the external auditor has been appointed,

- (1) the accounts relating to the chief auditor;
- (2) the financial statements of the municipality and any document determined by the Minister of Municipal Affairs, Regions and Land Occupancy by regulation published in the *Gazette officielle du Québec*.

Report.

The external auditor shall make a report of the audit to the council. The external auditor shall state in the report on the financial statements, in particular, whether the financial statements faithfully represent the municipality's financial position on 31 December, and the results of its operations for the fiscal year ending on that date.

2001, c. 25, s. 20; 2001, c. 68, s. 7; 2003, c. 19, s. 250; 2005, c. 28, s. 196; 2009, c. 26, s. 109.

Report to the treasurer.

**108.3.** The external auditor shall transmit to the treasurer the report referred to in section 108.2 or, as the case may be, the report referred to in subparagraph 2 of the first paragraph of section 108.2.1.

Report to the council.

The report referred to in subparagraph 1 of the first paragraph of section 108.2.1 shall be transmitted to the council on the date determined by the council.

1984, c. 38, s. 11; 2001, c. 25, s. 21; 2010, c. 18, s. 23.

Audits.

**108.4.** The council may require any other audit it considers necessary, and require a report.

1984, c. 38, s. 11.

Access to books and information.

**108.4.1.** The external auditor shall have access to the books, accounts, securities, documents and vouchers and may require the employees of the municipality to furnish any information and explanations necessary for the performance of the external auditor's mandate.

2001, c. 25, s. 22.

Documents. **108.4.2.** The chief auditor shall place at the disposal of the external auditor all books, statements and other documents prepared or used by the chief auditor during the audit conducted under section 107.7 and that the external auditor considers necessary to carry out his mandate.

2001, c. 25, s. 22; 2005, c. 28, s. 49.

Ineligibility. **108.5.** In no case may the following persons act as external auditor of the municipality;

- (1) a member of the council of the municipality and, where applicable, of a borough council;
- (2) an officer or an employee of the municipality;
- (3) the associate of a person mentioned in paragraph 1 or 2;
- (4) a person who, during the fiscal year for which the audit is carried out, has, directly or indirectly, personally or through his associate, any participation, interest or commission in or under a contract with the municipality or in respect of such a contract, or who derives any benefit from the contract, unless his connection with the contract arises from the practice of his profession.

1984, c. 38, s. 11; 1996, c. 2, s. 209; 1999, c. 40, s. 51; 2001, c. 25, s. 23.

Partnership. **108.6.** The external auditor may be an individual or a partnership. The external auditor may entrust his employees with his work but his responsibility is then the same as if he had performed all the work personally.

1984, c. 38, s. 11; 1999, c. 40, s. 51; 2001, c. 25, s. 24.

## VII. — *Director general*

Status. **113.** The director general is the chief officer of the municipality.

Authority. The director general has authority over all the other officers and employees of the municipality, except the chief auditor, who reports directly to the council. With respect to an officer or employee whose duties are prescribed by law, the authority of the director general is exercised only within the framework of his duties as the administrator of human, material and financial resources of the municipality and may in no case hinder the carrying out of duties that are prescribed by law.

Suspension. The director general may suspend an officer or employee from his duties. He shall immediately make a report of the suspension to the council. The council shall decide the case of the suspended officer or employee, after inquiry.

R. S. 1964, c. 193, s. 109; 1968, c. 55, s. 5; 1983, c. 57, s. 50; 2001, c. 25, s. 27.



# **VI.2. Appendix 2– Employees of the Bureau du Vérificateur Général as of December 31, 2011**



**Vérificateur général**  
de la Ville de Montréal



## VI.2. APPENDIX 2—EMPLOYEES OF THE BUREAU DU VÉRIFICATEUR GÉNÉRAL AS OF DECEMBER 31, 2011

Management personnel	Support staff
<p><b>Auditor general</b> Jacques Bergeron, CA, MBA, M. Sc.</p> <p><b>Assistant auditors general</b> Robert Duquette, CA Denis Tremblay, CGA Serge Vaillancourt, FCGA</p> <p><b>Senior auditor</b> Marie-Ève Lemieux, CA, CA•EJC</p>	<p><b>Executive secretary</b> Josiane Mauriello</p> <p><b>Accounting analyst</b> France Benny</p> <p><b>Programmer</b> Yolaine Levasseur</p>
Audit professionals	
<p>François Arbez, CISSP, CISM, CGEIT, CISA Martine Beauregard, CGA Régent Bilodeau, CGA Johanne Boudreau, BAA Jacques Brisson, CA, CISA Maryse Brunetta, CGA Khadija Chaya, CMA, MBA Marie Cormier, CA Christian Élomo, MBA Chérif Ferah, MBA André Gagnon, CMA, CISA Lucie Gauthier, CGA Bernard Goyette, CGA, CMA</p>	<p>Jocelyne Laperrière, CA Éric Laviolette, CA Isabelle Léger, CA, CISA Chantal L'Heureux, CGA Joanne Major, CA Victor Marchand, CGA, CISA Jean-Charles Périgny, CA Philippe Pitre, CGA Michel Proulx, CGA Ronel Rocher, CGA Pierre Rochon, MBA André Sergerie, CA André St-Pierre, CGA*</p>

\* On union leave.

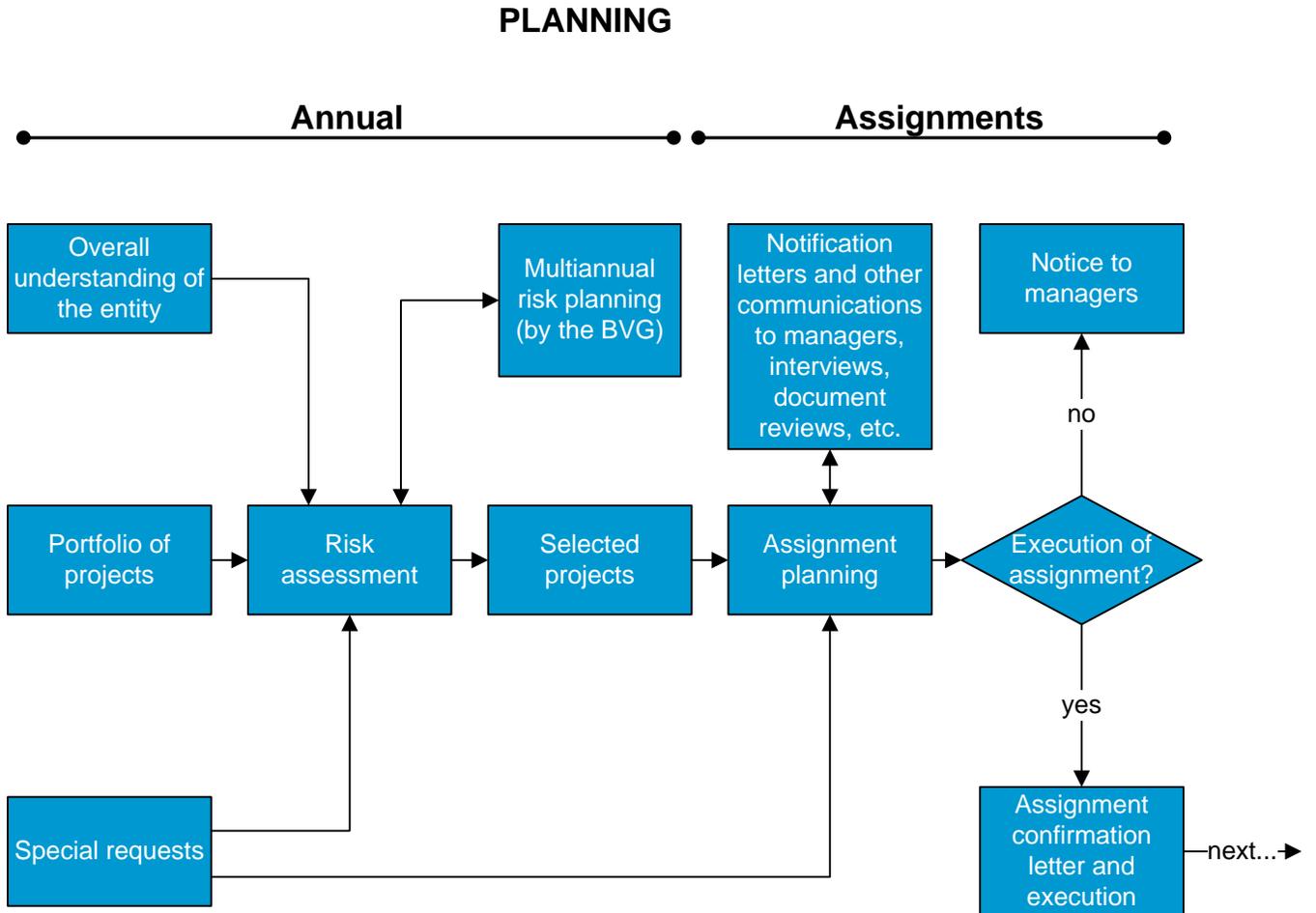


# **VI.3. Appendix 3– Information Flow Charts – Value-for-Money and Information Technology Audit**

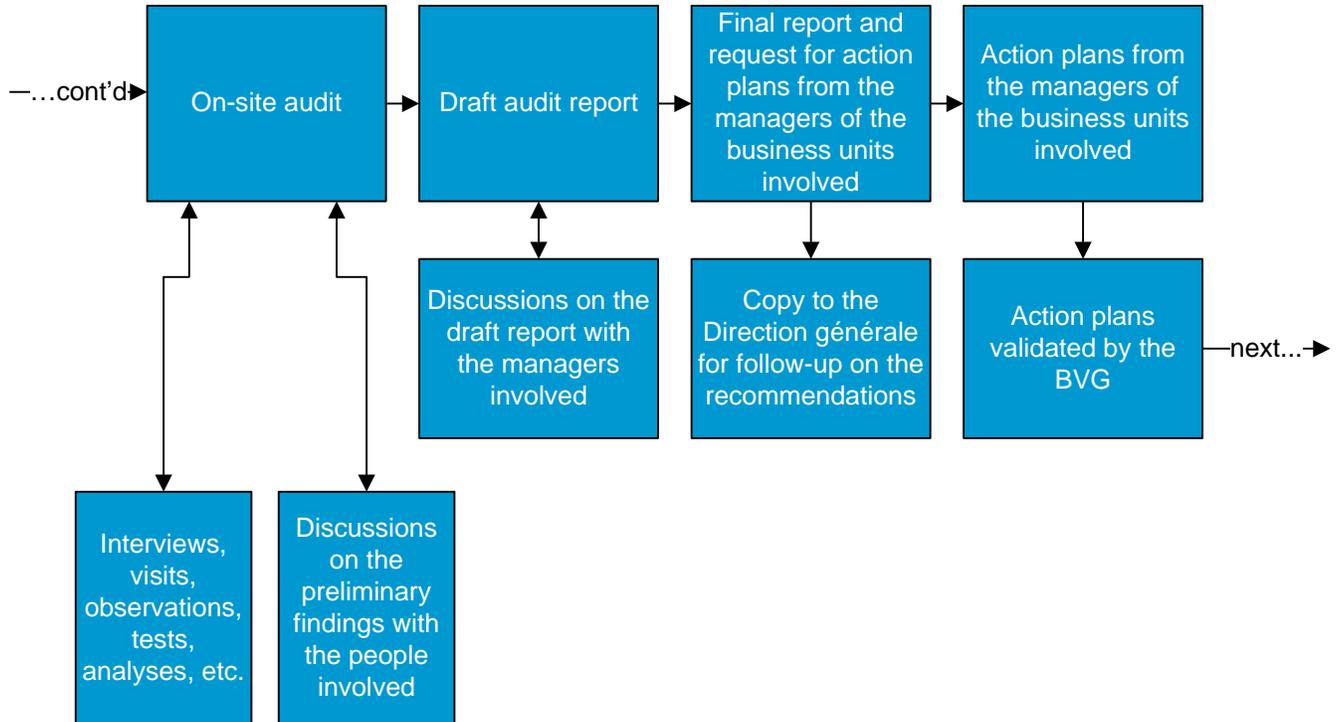




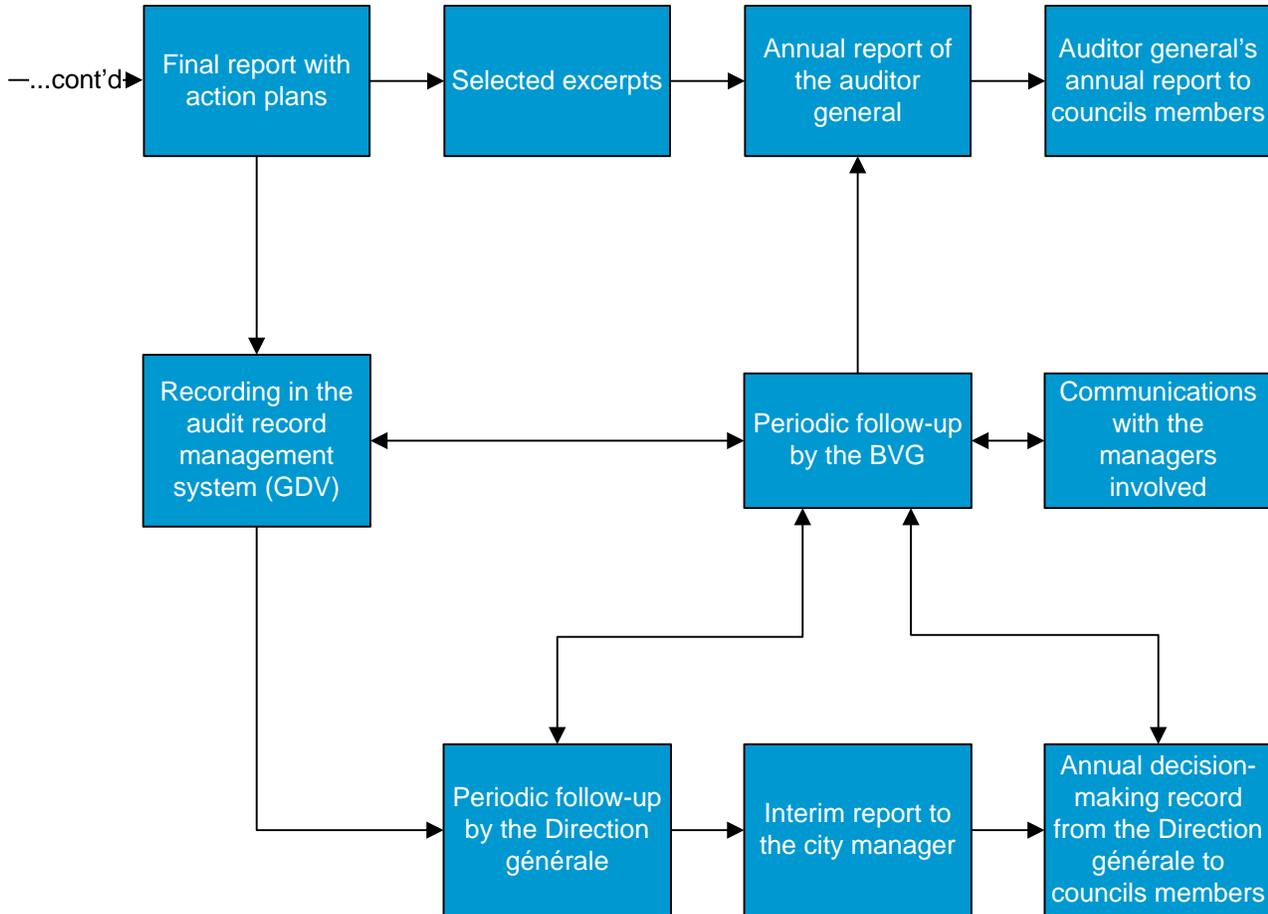
## VI.3. APPENDIX 3—INFORMATION FLOW CHARTS— VALUE-FOR-MONEY AND INFORMATION TECHNOLOGY AUDIT



### AUDITING AND REPORTS



**ANNUAL REPORT AND FOLLOW-UPS**





# **VI.4. Appendix 4– Accounts Statement of the Auditor General**



**Vérificateur général**  
de la Ville de Montréal



## **VI.4. APPENDIX 4—ACCOUNTS STATEMENT OF THE AUDITOR GENERAL**

As this report went to press, the audit of our accounts statement had not been completed given the delay in the appointment of our joint auditor by the authorities. Under the subparagraph 1 of the first paragraph of section 108.2.1 of the *Cities and Towns Act*, the joint auditor also serves as the auditor of these accounts.

