



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, 2015



**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, 2015

Legal Deposit – Second Quarter 2016
Bibliothèque et Archives nationales du Québec

ISSN 1925-6787 (print)
ISSN 1925-6795 (online)
(Original version: ISSN 1924-0317 [print],
ISSN 1925-6809 [online])

ISBN 978-2-7647-1421-8 (print)
ISBN 978-2-7647-1422-5 (online)
ISBN 978-2-7647-1430-0 (USB flash drive)
(Original version: ISBN 978-2-7647-1419-5 [print],
ISBN 978-2-7647-1420-1 [online],
ISBN 978-2-7647-1429-4 [USB flash drive])

Please note that this English report has been translated from the original French version. In case of doubt or difference of interpretation, the French version shall prevail over the English.

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.

This report is available on our website at:
bvgmtl.ca.

May 12, 2016

Mr. Denis Coderre
Mayor of the Ville de Montréal
275, rue Notre-Dame Est
Montréal, QC H2Y 1C6

**Subject: Auditor general of the Ville de Montréal's annual report for the year ended
December 31, 2015**

Dear Mr. Mayor,

Please find enclosed my last annual report, for the year ended December 31, 2015, as per Section 107.13 of the *Cities and Towns Act* (RSQ, chapter C-19), as well as the *Highlights* to be tabled at the next regular city council meeting on May 16, 2016 and the next urban agglomeration council meeting on May 19, 2016.

Yours truly,



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

Table of Contents

1. Comments from the Auditor General	7
1.1. Summary of Highlights and Related Issues (2009–2015)	11
1.2. Rate of Implementation of the Recommendations Issued by the Bureau du vérificateur général (BVG).....	31
1.3. Maintaining the Bureau du vérificateur général's Expertise.....	35
1.4. Independence of the Auditor General	39
1.5. Final Thoughts.....	43
2. Overview of the Bureau du vérificateur général	47
2.1. Workforce Status.....	49
2.2. Performance Indicators	53
3. Financial Statement Audits	63
3.1. Consolidated Financial Statements of Ville de Montréal	65
3.2. Financial Statements of Other Legal Entities Subject to the <i>Cities and Towns Act</i>	69
4. Value-for-Money and Information Technology Audit	73
4.1. Follow-Ups to Recommendations from Previous Years	75
4.2. Allocation of Financial Contributions.....	81
4.3. Authorization of the Autorité des marchés financiers	137
4.4. Framework Agreements for IT Professional Services (Service des technologies de l'information)	177
4.5. Information and Communications Technology Recovery Management.....	217
4.6. Energy Management	279
4.7. Acquisition Card Management.....	309
4.8. Real Estate Transaction Management (Service de la gestion et de la planification immobilière).....	337
4.9. Management of Construction and Renovation Work on Ville de Montréal Buildings.....	369
5. Appendices	431
5.1. Appendix 1 – Excerpts from the <i>Cities and Towns Act</i>	433
5.2. Appendix 2 – Employees of the Bureau du vérificateur général as of December 31, 2015	445
5.3. Appendix 3 – Information Flow Charts – Value-for-Money and Information Technology Audit.....	449
5.4. Appendix 4 – Accounts Statement of the Bureau du vérificateur général.....	455



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, 2015

Comments from the Auditor General

1



1. Comments from the Auditor General

This report will be my last, because my mandate will end on June 2 of this year. Under the circumstances, it seems appropriate to summarize the highlights of the value-for-money (VFM) and information technology (IT) audits that were conducted by the BVG during my seven-year term. I would also like to highlight the key measures that the municipal administration has taken or initiated as well as the measures it must keep in place in order to remedy the main deficiencies identified.

First of all, allow me to remind you briefly of the auditor general's role and mission. The auditor general assists city council in the execution of its governance duties by keeping it up to date on the diligent and optimal use of public funds by the municipal administration. By means of fully independent audits and the publication of reports that are available to the public, the auditor general plays a critical role in promoting the transparency and accountability of municipal operations.

For this purpose, the Bureau du vérificateur général's (BVG's) philosophy is to favour an audit strategy which attempts to:

- determine the major risks involved in achieving the objectives pursued and possible solutions for managing these risks;
- evaluate the performance of the city's major activities in terms of economics, efficiency and effectiveness;
- look for possible ways to improve public services or reduce their costs.

In addition to highlights of the audits conducted by the BVG during my mandate (section 1.1), I also think it is important to discuss the following matters of interest:

- 1.2 Rate of Implementation of the Recommendations Issued by the Bureau du vérificateur général;
- 1.3 Maintaining the Bureau du vérificateur général's Expertise;
- 1.4 Independence of the Auditor General;
- 1.5 Final Thoughts.



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, 2015

1.1

Summary of Highlights and Related Issues (2009–2015)



1.1. Summary of Highlights and Related Issues (2009–2015)

Over the seven years of my term, the BVG has conducted some 72 VFM and IT audits covering a vast range of the activities of the city and the bodies reporting to it. I would like to recall the main highlights of these audits, which I have grouped under the following topics:

- 1.1.A Water Meters;
- 1.1.B Telecommunications Services Outsourcing Project;
- 1.1.C Distribution of Contracts Awarded by Authorities to Contractors;
- 1.1.D Integrated Control System of the Montréal Metro (STM);
- 1.1.E Public Self-Serve Bicycle Project (BIXI);
- 1.1.F Implementation Plan for Infrastructure Work and Quality Control of Materials;
- 1.1.G Application of the *By-Law Concerning the Sanitation, Maintenance and Safety of Dwelling Units*;
- 1.1.H Fire Safety Cover Plan and Fire Hydrants;
- 1.1.I Physical and Logical Penetration Tests;
- 1.1.J Snow Clearing Contracts and Contracts for the Collection and Transportation of Residual Materials;
- 1.1.K Compliance with Laws and By-Laws;
- 1.1.L Information Technology Governance;
- 1.1.M Management of Financial Contributions;
- 1.1.N Business Continuity Management and Information and Communications Technology Recovery Management.

1.1.A. Water Meters

When I took up my duties on June 2, 2009, the Bureau du vérificateur général had been propelled to centre stage in municipal politics: city council had just awarded it a special sweeping mandate to audit the contracting of water meters in the Industrial, Commercial and Institutional (ICI) sectors and the optimization of the network. I assembled and supervised a team of professionals that included forensic accountants, lawyers and engineers with expertise in the water sector. During the summer of 2009, the audit turned into an investigation, raising questions that were brought to the attention of the Sûreté du Québec.

At my press conference that followed the publication of my special report on water meters, in September 2009, I ended with the words: “**Too big, too fast, too expensive.**” Among the key findings, it was revealed that:

- Administrative and legal rules had not been complied with;
- Elected officials sitting on city council and the urban agglomeration council had been misinformed;
- The municipal administration no longer had the human resources in its administrative structure to counterbalance private business;
- The initial project to install water meters was misrepresented, with elected officials not having all the information, and the cost surged from \$40 million to more than \$600 million;
- The city did not have the means to fight corruption and collusion;
- The city was not monitoring the cost of its projects;
- The contract-awarding process was not audited, as was originally planned. Significant irregularities were identified in both the bids and the awarding process;
- The project costs were too high;
- Nearly half of the water meters planned would never be installed.

These findings led to the following recommendations:

- *The city’s internal expertise in developing and managing complex projects needs to be reinforced as a counterweight to approaches and solutions proposed by external firms;*
- *Project management governance practices need to be reviewed.*

Besides cancelling the water meter contract, the municipal administration overhauled its administrative structure and adopted various measures to follow up on my recommendations, which included a review of procurement practices, the creation of the Bureau du contrôleur général and the implementation of a new “Cadre de gouvernance des projets et des programmes de gestion d’actifs municipaux” [TRANSLATION: governance framework for municipal asset management projects and programs].

Concerning this last point, there is still an ongoing need for the administration to deploy resources to ensure that all business units comply with this management framework in their implementation of municipal asset management projects and programs.

1.1.B. Telecommunications Services Outsourcing Project

This \$100 million project was supposed to ensure the availability and development of high-performance networks at the lowest cost for the city. The decision-making summary of the

contracts associated with this project alludes to savings of \$50 million over a span of 10 years, mainly through the major transfer of wireline telephony to IP telephony and a reduction in projected investments.

My 2009 audit of wireline telephony and data transmission contracts revealed deficiencies in the needs definition process, inconsistencies in the outsourcing strategy, discrepancies in the understanding of specifications and a major reorganization of the staff involved in the project, both at TELUS and at the city. This resulted in several issues related to the handling and management of the contracts, financial commitments and achieving the objectives of the outsourcing strategy. For this purpose, a joint issue resolution committee was set up at that time to resolve disputes between the city and TELUS. My audit also revealed troubling facts that were relayed to police authorities.

Moreover, at the end of a related audit conducted to follow up on the recommendations published in my 2014 Annual Report, I concluded that all but two issues had been resolved. These were important issues related to project governance: accountability reporting and the financial framework.

On the one hand, my 2014 report noted that “although a certain amount of accountability reporting has been done with the Direction générale and the executive committee, a formal and systematic process has yet to be defined and implemented.” Indeed, elements related to the achievement of goals and the monitoring of risks were essentially being performed on an ad hoc basis and authorities were receiving little information in this regard.

On the other hand, I noted that as of 2014, the financial framework for the project had still not been submitted to the authorities. This situation was of concern to us because it had already been established and recognized by the Service des technologies de l’information (STI) that by the end of the anticipated term of the telecommunications outsourcing project, November 2018, the projected costs would surpass the authorized financial framework by close to \$32 million.

Nevertheless, based on a legal opinion, the STI informed me that the contract would end when budget funds approved by authorities at the time it was awarded were used up. The city would therefore likely need to award a new data transmission contract in the fall of 2016, roughly two years before the expiry of the initially planned deadline.

This possibility meant that the contract-awarding process would have to be undertaken no later than the fall of 2015. It also meant adopting guidelines for telecommunications; developing a contract-awarding strategy; developing specifications; drafting a contract

proposal; launching a call for tenders; allowing a reasonable deadline for bidders to submit their tenders; and providing timeframes for reviewing the bids received, for submitting the recommendation to authorities—all the way up to the urban agglomeration council—, for approval, and for ensuring a smooth transition between the two contracts.

In June 2015, the STI submitted accountability reports on the financial framework of this project to the executive committee, expressing its intention to adopt a new strategic approach to telecommunications. I believe that this outsourcing project will be a learning experience for the city. The key challenge will be to implement an aggressive strategy to mitigate the aforementioned risks.

1.1.C. Distribution of Contracts Awarded by Authorities to Contractors

In my 2009 Annual Report, I discussed the distribution of contracts awarded to contractors from 2006 to 2009. An examination of the city's databases revealed that a sizeable proportion of the contracts awarded by borough councils, the executive committee, city council or the urban agglomeration council went to 21 contracting firms.

More specifically, for this period, I had examined in detail the distribution of contracts awarded to these 21 firms by the borough council of each of the 19 boroughs. In view of the results obtained, I shared my concerns that some boroughs were awarding a large share of their contracts to the same contractors within the group of 21 firms, even though contracts were awarded to the lowest compliant bidders. I had immediately recommended that the municipal administration continue the processes it had already undertaken to improve management and monitoring of the contract-awarding process by the city's various administrative units.

As part of my 2011 Annual Report, I followed up on the implementation of these processes. I noted at that time that the municipal administration had in fact expended a great deal of effort to review its methods and tighten the necessary controls. At the same time, there came into force a variety of legislative provisions governing the contract-awarding process used by municipal bodies.

This follow-up process also led me to appreciate the extent to which all the controls introduced by the municipal administration had helped reduce the concentration of contracts awarded to the same contractors. In short, the results of this follow-up led me to believe that the series of measures proposed by the municipal administration and the provincial legislator

to improve the management and monitoring of the contract-awarding process through the city's various administrative units is tending to yield positive results.

Since then, I noted that, at the city's request, the legislator had adopted several orders-in-council. The two most recent ones lowered to \$100,000 the expenditure threshold for contracts requiring the contractor to obtain authorization from the Autorité des marchés financiers (AMF) to enter into contracts for the construction of roads, sewers and water mains. These measures should help mitigate the risk of official misconduct.

Moreover, I can only commend city council's decision to create the Bureau de l'inspecteur général (BIG) in 2014. My office has worked closely with the BIG because of our mutual interests and the complementary nature of our respective mandates.

The challenge facing the municipal administration will be to ensure monitoring of compliance with all the laws and by-laws, as well as with the new conditions that will be imposed on contractors when contracts are awarded.

1.1.D. Integrated Control System of the Montréal Metro (STM)

In the special report I submitted in June 2011, I called attention to several significant problems in the management of this project to replace the integrated control system of the Montréal metro. This project was vital to the continuing operation of the metro, because the control centre that existed at that time was obsolete and the Société de transport de Montréal (STM) faced major obstacles in procuring replacement computer components. Our audit revealed an explosion of costs and delays relative to initial estimates. The projected cost soared to \$200 million, far above the initial estimate of just \$33 million. The anticipated project completion time was 3.5 times longer than initially planned. In the explanations given for these major discrepancies, the BVG noted departures from principles of sound project management and governance. The fields of software engineering and systems engineering were neglected. We also had major concerns about tests conducted on the integrated control system to ensure a high-quality solution and compliance with timelines.

In executing highly complex projects such as this one, the STM must be sure to conduct an in-depth risk analysis of each project, taking its unique characteristics into account, so that it can select the right project management tools and ensure that the project participants have the necessary expertise and skills. Rigorous formal project governance mechanisms will need to be put in place.

1.1.E. Public Self-Serve Bicycle Project (BIXI)

In the special report tabled in June 2011, I wanted to ensure that agreements among the Société en commandite Stationnement de Montréal (SCSM), the Société de vélos en libre-service (SVLS) and the city were compliant. I also wanted to assess the financial impacts of implementing and operating BIXI for the city as well as evaluate how governance and accountability reporting mechanisms impacted on management of the project.

My report brought to light several administrative and legal problems. One of these concerned the legal framework, which prohibited the SVLS from carrying out commercial activities, i.e., selling its concept of self-serve bicycles in other cities in Canada or abroad. The SVLS's commitment to divest itself of its international activities in fact became a condition for allowing the city to provide the SVLS with financial assistance.

With respect to financial impacts, I had reached the conclusion that the city was indirectly funding the SVLS's activities through the SCSM and that the SCSM's involvement could compromise the SVLS's ability to meet its commitments to the city. I also expressed doubts concerning the future cost-effectiveness of the SVLS and about the risk of a lack of cash flow at the time of asset renewal. Lastly, I discussed the impact of the funding structure, including the risk that any potential losses may have to be permanently absorbed by the city.

In September 2013, in a letter to the chair of SVLS's board of directors, I again expressed my concerns that the SVLS may not be able to continue its operations because of a lack of cash flow, and that, as a result, I was unable to express an opinion on the 2012 financial statements.

In January 2014, the city, which was then the SVLS's main creditor, declared its intention to seize the SVLS's assets. Incapable of raising funds, the SVLS had no other choice than to turn to the protection of the *Bankruptcy and Insolvency Act*, which it did on January 20, 2014.

1.1.F. Implementation Plan for Infrastructure Work and Quality Control of Materials

In my 2010 Annual Report, I called attention to the terrible condition of several bridges and tunnels under the city's responsibility. I noted that for several years, significant underinvestment had played a part in accelerating the deterioration of these infrastructures. In the action plan of the business unit concerned, it was noted that the recommendations of the Bureau du vérificateur général would be taken into account.

Moreover, in my 2012 Annual Report, I pointed out that a major underinvestment problem plagued the maintenance and replacement of secondary water and sewer system infrastructures. The same was true of the arterial road system. In both cases, underinvestment contributed to the accelerating deterioration of infrastructures, similarly to bridges and tunnels. At that time I noted that if nothing were done to correct the situation, the city could find itself in a critical position in which the ensuing backlog would be difficult and very costly to address. Once again, action plans were drafted by the city outlining pertinent corrective measures.

In my 2013 annual report, I discussed the activities undertaken to monitor the quality of materials used to replace and maintain infrastructures, including bridges, tunnels and road, water and sewer systems. Findings in this area led me to believe that construction work on the city's infrastructures may have been done without obtaining the assurance that the quality of the materials used was adequate and consistent with the city's needs. This was particularly worrisome in the existing context, with many of the city's infrastructures already in a state of disrepair.

I added that there is an undeniable link between the deteriorating condition of the city's infrastructures and the quality of the materials used and compliance of their installation. Even though this is not the only underlying cause of the precarious state of infrastructures, it is reasonable to conclude that the lack of quality control with regard to the materials used could be driving factors behind the poor condition of the city's infrastructures. Furthermore, it is disturbing to realize that past infrastructure investments may have been made without a comprehensive quality control process in place to ensure that the materials and installation adhered to strict standards.

Considering that, in the coming years, the city will need to make substantial investments in infrastructure renewal, it was important to implement sufficient controls to ensure the quality of the materials used and avoid squandering public funds on substandard work whose durability may be compromised as a result.

The city has announced substantial infrastructure investments since these annual reports were published. To improve the situation, the city created a 10-year capital expenditures program, the Programme montréalais d'immobilisation (PMI), raising the annual amounts of the three-year capital expenditures program (TCEP) from \$1.3 billion in 2014 to \$2.1 billion in 2024. The 2015–2017 TCEP calls for total investments of \$4.562 billion, an increase of more than 20% over the previous TCEP level. In addition to this increase, the Direction générale has set a goal of increasing the implementation rate for projects under the TCEP to

25% while ensuring that projects are executed at the lowest cost for the city. It should be noted, however, that the actual increase recorded in 2015 was about 5%.

Concerning quality control for materials used, I noted that since that time, under a quality assurance program that has been set up, mandates for quality control testing of materials are now assigned to external firms to ensure that work is executed in compliance with technical specifications.

Over the next few years, the city will face the challenge of boosting the implementation rate of projects under the TCEP and ensuring that projects are implemented in accordance with the quality standards demanded by the city while also ensuring sufficient investments to bring the maintenance deficit under control.

1.1.G. Application of the *By-Law Concerning the Sanitation, Maintenance and Safety of Dwelling Units*

The purpose of this audit, which was conducted in 2011 in four boroughs and at the office of the Direction de l'habitation, was to ensure that they had implemented appropriate measures for enforcement of the *By-Law Concerning the Sanitation, Maintenance and Safety of Dwelling Units* and the action plan that was adopted to support it so that they could achieve objectives related to minimum housing conditions for all and improvement of housing quality.

In order to channel responses towards the priorities and assess the effectiveness of measures taken, I recommended that the necessary steps be taken to establish a comprehensive overview of the location of problematic housing, to keep the overview up to date and to reassess the response strategy for the purpose of implementing a preventive inspection program. In addition, in order to ensure rigorous follow-up in the implementation of the corrective measures prescribed, I recommended that the necessary steps be taken to ensure that inspectors conduct a follow-up inspection immediately following the deadlines set for offenders and, finally, that reports be submitted to managers so that they can assess and track the lengths of response times following the deadlines set for offenders.

Since that time, I have noted that tools have been developed that provided business units with up-to-date knowledge of the condition of dwellings on their territory. In addition, in 2015, a \$400,000 budget was approved to add upgrades to the computer application used to ensure follow-up of inspection activities and to enable reports to be generated to meet needs.

Nevertheless, business units must remain proactive in exercising rigorous control over operations to ensure minimum sanitation conditions of dwellings on the city's territory.

1.1.H. Fire Safety Cover Plan and Fire Hydrants

Within the scope of my 2012 Annual Report, I conducted an audit of the Fire Safety Cover Plan (SCRSI) whose objective was to ensure, for the period from 2009 to 2012, that the SCRSI was developing in line with the implementation plan adopted by the urban agglomeration council and certified by the Ministère de la Sécurité publique (MSP).

The SCRSI's implementation was based on the following three components:

- Prevention;
- Emergency Response – Strike Force;
- Water Supply.

The audit revealed that the projected timeline for the SCRSI's implementation plan had not been complied with:

- 1st component – Prevention: the audit revealed a considerable delay in the development and implementation of the integrated fire prevention activities management system (SGIAP). The planned completion date of the project was postponed until 2014 without the MSP's approval.
- 2nd component – Emergency Response – Strike Force: my findings revealed that there were delays in the construction of fire stations 32 and 59.
- 3rd component – Water Supply: I found that the Service de sécurité incendie de Montréal (SIM) had not conducted any feasibility studies or done any cost estimates for projects aimed at solving the water supply problem for the western part of the island.

Failure to meet the SCRSI's initial timelines could potentially result in legal action that could challenge the city's exemption from liability (immunity) (under an urban agglomeration power).

As a follow-up to these findings, I recommended that the SIM:

- take the necessary steps to ensure compliance with the new timeline for delivery of SGIAP;
- take the necessary steps to ensure compliance with the timelines of construction projects for fire stations 32 and 59;
- ensure that projects aimed at solving the water supply problem are based on adequate feasibility studies and cost estimates.

In response to my recommendations, and as of the drafting of the current annual report, the SIM has implemented corrective measures that satisfy the recommendations. The SGIAP system is now operational, and fire stations 32 and 59 have been built. With respect to the water supply, fire hydrants have been added to the network.

One of the city's major challenges in this front-line public service will be to improve the efficiency of prevention activities by relying on the SGIAP system.

Along the same lines, in 2014 the BVG conducted an audit on fire hydrant maintenance. The purpose of this audit was to ensure that the Service de l'eau was able to assess the boroughs' compliance with established standards in terms of hydrant maintenance and that the SIM has accurate information on the condition of all fire hydrants and their available flow.

The key findings arising from this audit were that fire hydrant maintenance was not being carried out in accordance with good practices, that the SIM did not have a complete, accurate profile of the condition of fire hydrants on the territory of the island of Montréal, especially out-of-service fire hydrants, and that it had not defined problematic sectors, in terms of flow rates and pressures, that had an impact on fire protection on the agglomeration's territory.

In the follow-up conducted in 2015, I noted that implementation of the action plans established by business units is well under way. However, while the actions undertaken are on the right track, it is not possible to confirm that all the objectives have been achieved, especially with regard to the SIM's knowledge of the condition of fire hydrants with an impact on fire protection. It is expected that a large number of measures will be implemented along these lines in 2016.

1.1.I. Physical and Logical Penetration Tests

Throughout my seven-year term, I took to heart issues of security involving infrastructures that were critical to the city's mission and its public services. For this purpose, I conducted several physical and logical penetration tests.

The main purpose of physical penetration tests was to ensure that the monitoring mechanisms in place adequately protected physical access to the buildings housing the city's essential activities. The objective of the logical penetration tests was to test the security of critical IT environments to qualify their resistance to a certain level of cyber attacks from both outside and inside its networks.

As a result of these tests, significant weaknesses were brought to light. For example, for 74% of the sites targeted, my physical penetration tests were totally or partially successful. For obvious security reasons, I will cite no examples of the logical intrusion tests conducted. That is why I did not disclose any detailed results of the tests in my annual reports. Moreover, I want to stress that business units corrected the deficiencies identified.

The municipal administration faces the ongoing challenges of keeping security mechanisms in place and continuing to raise employee awareness.

1.1.J. Snow Clearing Contracts and Contracts for the Collection and Transportation of Residual Materials

The purpose of these audits was to identify the number and the amounts for all snow removal and residual material collection and transportation contracts awarded by the city's 19 boroughs.

The contracts in force for the period spanning from 2005 to 2013 totalled \$528 million for all snow removal operations (snow removal, transportation and disposal, and leasing of equipment) and \$504 million for the collection and transportation of waste materials (household waste and recyclable materials).

While I do not claim to have proved beyond the shadow of a doubt that bid rigging exists among contractors for the purpose of sharing these contracts, my audit brought to light a sufficient number of indicative factors to raise suspicions that such a practice may exist for snow removal operation contracts and to raise very strong suspicions that such a practice likely exists for contracts involving the collection and transportation of household waste and recyclable materials on the territories of different boroughs, to the detriment of obtaining the best prices for the services requested. There were many indications of collusion:

- Contracts were awarded constantly and continuously to a limited number of contractors;
- Throughout the nine-year audit period, some boroughs awarded contracts exclusively to a single contractor;
- Bids made by affiliated companies could promote bid-rigging.

Clearly, in a market in which there is open competition, such a situation would be improbable at the very least.

Of course, the various measures that the provincial government and the city have adopted over the past four years to tighten the contract-awarding rules are likely to eliminate these unfair practices or at least reduce their pervasiveness, but risks subsist nevertheless.

Concerned with the results of my audit, I recommended to the Direction générale that the city's various business units have a historical overview of the distribution and scope of contracts awarded not just on their own respective territories, but for all of Montréal as well.

I also recommended that the Direction générale forward these two audit reports to the Bureau de l'inspecteur général (BIG) to confirm or dispel my fears regarding the existence of cartel agreements in these two industry sectors.

In response to my recommendations, the Direction générale immediately forwarded the report to the BIG, which launched [TRANSLATION] "an extensive investigation into snow removal operations and practices in Montréal." This investigation confirmed my apprehensions, concluding that several schemes involving collusion and market manipulation existed in the snow removal industry. The BIG proceeded to report them to both the anti-corruption commissioner and the Competition Bureau of Canada, which is responsible for criminal investigations involving conspiracies among competitors and bid-rigging.

In addition, as part of the borough financing reform, city council declared that under section 85.5 of the *Charter of Ville de Montréal*, both snow disposal activities on the local road system and residual material removal, transportation and disposal activities were within its jurisdiction.

Also, as part of the process of reviewing and upgrading the snow removal process, city council declared that snow removal on the local road system was within its jurisdiction, and adopted a snow removal policy.

The major challenge lies in containing the costs of snow removal activities and residual material collection and transportation activities and making them operationally efficient.

1.1.K. Compliance with Laws and By-Laws

The purpose of these audits, conducted from 2013 to 2015, was to examine all of the measures that the business units concerned implemented in order to ensure compliance with certain laws and by-laws governing their activities and public services.

For these three years, my investigation into compliance with laws and by-laws focused on the following areas:

- The parks contribution;
- Hours of driving and rest of heavy vehicle drivers;
- Private security;
- Temporary occupancy of the public domain;
- Protection of buildings against sewer back-ups;
- Authorization to enter into a contract granted by the Autorité des marchés financiers (AMF).

Generally, my audits revealed several situations of non-compliance, about Laws and By-Laws which are mainly attributable to:

- misconceptions about the laws and by-laws;
- improper enforcement of the laws and by-laws;
- non-enforcement of the laws and by-laws;
- lack of monitoring mechanisms to ensure enforcement of the laws and by-laws;
- inconsistency in enforcing the laws and by-laws.

The situation is worrisome because such cases of non-compliance inevitably involve many risks, such as major financial losses, lawsuits, misappropriation of funds, a tarnished image of the city and even citizen dissatisfaction.

For the audits conducted in 2013 and 2014, I recommended that business units establish monitoring mechanisms to ensure that the laws and by-laws governing their areas of responsibility are enforced accordingly.

As a result of my recommendations, business units implemented corrective measures, even though some of the recommendations have yet to lead to corrective measures.

For the audit conducted in 2015, which concerned authorization to enter into a contract granted by the AMF, I noted that the cases of non-compliances observed could be attributed to practically the same causes as those cited above. Accordingly, the recommendations I made were quite similar overall.

Compliance with laws and by-laws is a major issue for the city, involving a wide range of risks. Since laws and by-laws are constantly changing in the world of municipal politics, the major challenge faced by the city in this area will be, first, to continue in its efforts to establish monitoring mechanisms aimed at ensuring compliance, and second, to ensure that it has knowledge of all laws and by-laws governing the city's activities.

1.1.L. Information Technology Governance

As part of my 2014 Annual Report, I audited the city's information technology (IT) governance for the purpose of determining whether the organizational structure and management processes in place ensured that IT efficiently and effectively supported the city's mission, strategies and objectives.

I noted at that time that the organizational structure and management processes currently in place did not ensure that information technology was contributing efficiently or effectively enough to the city's mission, strategies and objectives. At a time when authorities want to tighten the city's budget framework while relying on the strategic contribution of IT, I felt that deficiencies in this area posed major risks, including the risk that:

- available funds are not being allocated to projects that contribute the most to the city's strategic directions;
- IT operating and maintenance expenses are straining resources that could be assigned to more profitable, more proactive activities;
- IT infrastructures and applications quickly become obsolete, requiring major investments;
- the city does not make enough use of technological innovations that would help improve public services more effectively and efficiently;
- effective service levels do not meet the needs of business units, hampering them in the achievement of their own business objectives;
- IT skills are not aligned with future needs, which could create a dependence on external firms;
- authorities are not sufficiently informed of the IT risks to which the city is exposed and may be confronted with crisis situations.

I therefore made a comprehensive recommendation that the Direction générale ratify a scheduled plan outlining the timelines and responsibilities for adopting the following governance elements:

- IT strategic orientations;
- an STI master plan;
- an IT enterprise architecture;
- management frameworks and structure governing relations between the STI and business units, including the establishment of service levels and accountability and budgetary control mechanisms;
- the nature and frequency of reporting to the authorities, including setting and following up on performance targets and IT-related risks.

In response to this recommendation, I was sent a preliminary action plan outlining four priorities: 1) the appointment of a new director (CIO); 2) the adoption of a new STI structure, staffing and staff deployment in 2015; 3) the development of an IT enterprise architecture; and 4) the submission of a detailed action plan for the establishment of IT governance in January 2016.

At the time of writing the current report, I had discussions with the STI about the course of action that should be taken in order to implement this detailed plan. Naturally, the BVG will remain vigilant in this area and will possibly conduct various audits to evaluate the effectiveness of existing measures and the capacity of IT to adhere to the city's strategic orientations effectively and efficiently.

In my opinion, one of the major challenges facing the city, which launched a change initiative known as "Montréal, smart and digital city," will be to have sound IT governance that can provide it with the assurance that its IT investments are sources of added value.

1.1.M. Management of Financial Contributions

The purpose of audits completed in 2014 and 2015 was to ensure that the allocation of financial contributions to organizations was part of an objective, transparent process and to evaluate the extent to which business units monitored the contributions granted by authorities to ensure that the amounts granted were used for the intended purposes. I found that:

- Evidence intended to show that requests were reviewed and to justify financial contribution amounts was not always documented;
- Measurable objectives had not been established, making it difficult for business units to evaluate the results;
- Requirements for organizations were not always the same and sometimes failed to provide for important controls such as the mode of operation demonstrating the use of contributions, the obligation to provide audited financial statements and the recovery of amounts not used for the intended purposes;
- There are deficiencies in the follow-up work done to evaluate the achievement of results and the use of contributions for the intended purposes;
- Boroughs are unable to assess the added value of support provided to organizations.

Since boroughs manage public funds, I believe that action must be taken to establish rules for ensuring the objectivity and transparency of the process. I also believe that authorities must decide on support priorities so that measurable objectives can be set. Thereafter, only organizations that contribute to achieving these objectives must be supported.

In 2015, a task force was created by the table of culture, sports, leisure and social development managers to establish common guidelines for the boroughs and central departments concerned. The Direction générale has also started preparing a guide on the management of financial contributions.

One of the challenges in the next few years will be to evaluate the results obtained by organizations based on the objectives established by the city and whether the contributions made were used for their intended purposes. Another challenge will be to measure the added value generated by the support provided to organizations in connection with the city's priorities.

1.1.N. Business Continuity Management and Information and Communications Technology Recovery Management

As part of this annual report, I am presenting my audit of information and communications technology recovery management, which is the logical continuation of the audit I conducted last year on business continuity management. The dual purpose of these audits was to determine whether the city was taking the necessary steps to deal with the risk of a major disaster that could:

- disrupt its operations, so that it can ensure the continuity of operations considered critical;
- affect its information and telecommunications systems, so that it can ensure adequate ICT recovery.

The business continuity audit focused on the Direction générale, the Direction de l'eau potable of the Service de l'eau, the Service de sécurité incendie de Montréal (SIM), the Service des technologies de l'information (STI) and the Service de Police de la Ville de Montréal (SPVM), while the ICT recovery audit focused on the STI, the SIM, the SPVM and the Direction de l'eau potable (DEP) and the Direction de l'épuration des eaux usées (DÉEU) of the Service de l'eau.

Business Continuity Management

While the city has emergency management measures in place enabling it to react to a major event with a direct impact on its residents, I concluded that it did not have the necessary measures in place to deal with the risk of a disaster disrupting its operations, especially essential activities. In fact, our audit did not reveal evidence of business continuity programs within either the Direction générale or some of the most critical business units: the DEP, the

STI and the SIM. However, the SIM's communications centre has an operational recovery plan that was covered in our audit of ICT recovery management.

I concluded that the SPVM did not have the necessary measures in place to address the risk of a disaster for all its business functions categorized as having their "services covered" in the event of a disaster. Indeed, the SPVM has business continuity plans only for the 9-1-1 Emergency Centre, the Centre de commandement et de traitement de l'information and its operational centres. Each of the SPVM's PDQs (neighbourhood police stations) can be relieved by the others as a result of their numbers and proximity.

If a disaster were to affect essential operations, there is no doubt that the city would resort to improvising its responses. As a result, it is unlikely that critical activities could be recovered in a timely manner. Essential public services would be difficult to maintain.

Based on my findings, I recommended that the Direction générale develop specific business continuity management frameworks as well as a business continuity structure for the city. In response, the Direction générale mandated the Centre de sécurité civile to handle the business continuity management program for the entire city. The Centre will deal first with the SPVM, the SIM, the Service de l'eau and the STI, and then with the city's other departments. As part of the follow-up work for preparing the current report, a three-year plan for 2016 to 2018 was developed by the Centre de sécurité civile, and the staffing process, which involved the hiring of a professional certified in business continuity, was in the process of being finalized.

ICT Recovery Management

Overall, the city does not have an ICT recovery program for dealing with the risk of a major disaster affecting the information and telecommunications systems that support the city's critical activities.

However, adequate ICT recovery measures are in place for the SIM's RAO (computer-assisted dispatch) system and the SPVM's 9-1-1 Emergency Centre systems, while the DEP and the DÉEU of the Service de l'eau have embarked on a procedure for their in-plant activities.

The city entrusted the STI with the mission of maintaining and supporting the modernization of the city's key technological services. The recovery program is an essential component of sound ICT management.

Based on the results of my audit, I believe that the STI is not performing its ICT recovery function. The STI has not:

- adopted a structured, common approach to ICT recovery management;
- integrated ICT recovery into its major incident management process;
- conducted risk and impact analyses for all of its activities;
- adequately documented ICT recovery strategies and plans;
- systematically performed ICT recovery exercises, with the exception of the centralized IBM environment. In this case, the exercises performed are too limited to permit effective validation of recovery processes.

If a disaster were to affect essential operations, there is no doubt that the city would resort to improvising its responses. Further, many ICT systems and infrastructures on which the city's critical activities depend could likely not be recovered in a timely manner.

Based on my findings, I made the key recommendation that the STI develop corporate frameworks, establish the management structure and place at business units' disposal municipal ICT recovery tools so that it can assist the various departments in their ICT recovery operations. The STI and the other business units audited responded favourably to our recommendations.

Given the complexity of the specific activities of the city's business units (industrial operations for the Service de l'eau, policing for the SPVM), the city will be faced with the challenge of introducing a business continuity and ICT recovery program that provides business units with a standardized problem solving procedure in the event of a disaster that reduces the time for resuming critical operations.



**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, 2015

1.2

**Rate of
Implementation
of the
Recommendations
Issued by the
Bureau du
vérificateur général
(BVG)**



1.2. Rate of Implementation of the Recommendations Issued by the Bureau du vérificateur général (BVG)

The BVG’s policy is to follow up on the recommendations during the year that follows their publication in the annual report. For a given year, the cycle of following up on recommendations normally extends at most over a three-year horizon. Indeed, the BVG considers it reasonable for 100% of the recommendations issued to be implemented within this three-year period, except under very special circumstances where certain recommendations are followed up over an additional year or two.

In 2013, the city’s Direction générale set new performance targets for implementing the BVG’s recommendations. The targets for 2012 and the years thereafter are as follows:

- 70% of the recommendations issued must have been implemented by the end of the first year after they were issued;
- 90% of the recommendations issued must have been implemented by the end of the second year after they were issued.

The table below presents the results of the follow-up to our recommendations for the first three years of our follow-up work.

**Table 1 – Percentage of Recommendations Resolved
at the End of Our Follow-Up Work**

Recommendations for the year	1st year of follow-up (target 70%)	2nd year of follow-up (target 90%)	3rd year of follow-up
2012	43%	65%	79%
2013	44%	67%	N/A
2014	35%	N/A	N/A

In my annual reports for both 2013 and 2014, I indicated that the proportion of recommendations considered “completed” by the end of the first year after they were issued was well below the 70% target set by the Direction générale—43% for the recommendations issued in 2012 and 44% for those issued in 2013.

In light of this finding, I recommended in my 2013 annual report that the Direction générale make business units aware of the importance of implementing the BVG’s recommendations within one year, in most cases, and that this be reflected in the action plans submitted. In my

2014 annual report, I reiterated how important it was for the Direction générale to take the necessary steps to ensure that business units honour the commitments they made regarding action plans that were adopted in order to ensure implementation of the auditor general's recommendations.

However, after the follow-up audit conducted in April 2016, I noted that the situation had not improved. First, only a small percentage (35%) of the recommendations made in 2014, which were in their first year of follow-up following their publication, had the status of "completed." Furthermore, the recommendations made in 2013, which were in their second year of follow-up, and the recommendations that were made in 2012, which were in their third year of follow-up, fell short of the expected implementation target ("completed" status) of 90%, at 67% and 79% respectively. Clearly the situation is deteriorating.

However, at the city council meeting held on December 15, 2014, the president of the executive committee declared that the ultimate goal was to respond to 100% of the issues raised by the auditor general and to attempt to do so by order of priority. Furthermore, he mentioned that he would submit a work plan in response to the priorities.

That being said, the results obtained show that some business units are becoming slack about promptly implementing the recommendations addressed to them. In this context, I maintain that the aforementioned targets of 70% and 90% remain valid interim indicators for the purpose of assessing the overall extent to which the municipal administration is progressing towards the implementation of 100% of the recommendations within a three-year horizon. Indeed, indicators can help the administration more easily identify cases of non-compliance so that it can obtain explanations and ultimately channel decision-making towards necessary corrective action. While we are aware that various other priorities can influence the order in which business units fulfil their commitments, the situation nevertheless reveals a high risk that many of our recommendations will not be implemented during our three-year tracking cycle, unless aggressive remedial action is taken.

As with previous years, I believe that remedial action must be taken as promptly as possible and that business units must be made aware of the importance of implementing the auditor general's recommendations in accordance with the commitments they made in the action plans to ensure the implementation of the recommendations that were addressed to them.



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, 2015

1.3

Maintaining the Bureau du vérificateur général's Expertise



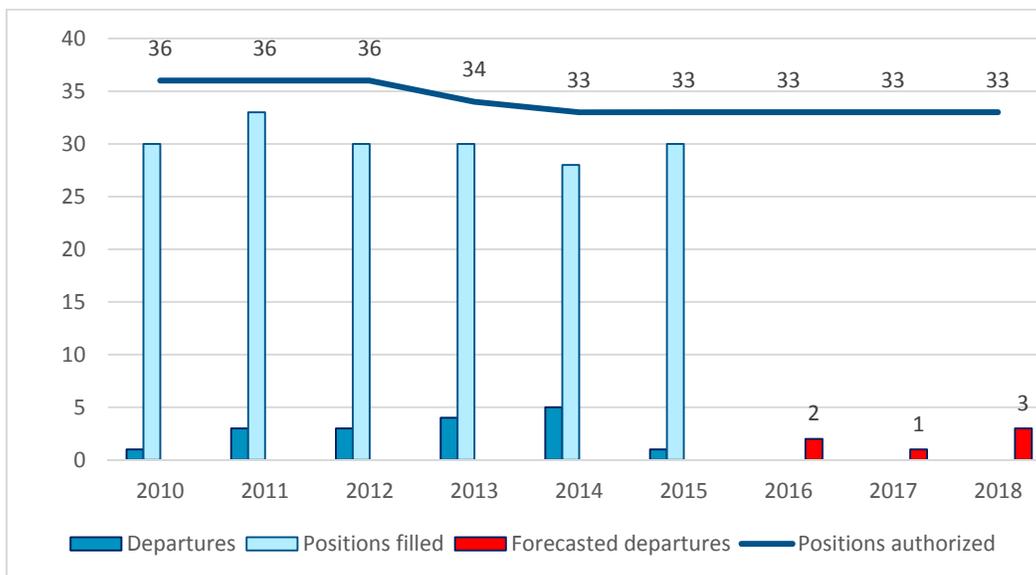
1.3. Maintaining the Bureau du vérificateur général's Expertise

The BVG's credibility and power of influence undoubtedly depend first and foremost on the expertise of its human resources. Given the scope of my mandate and the fact that my report is made public, my staff must have not only an extensive knowledge of various fields but also exceptional auditing skills.

For this purpose, the BVG's philosophy is, first, to have at its disposal internally, insofar as possible, a core of experienced professionals who collectively possess expertise on the city's different spheres of professional activities in the areas covered by my mandate: the financial audit, the value-for-money audit and regulatory compliance. Second, the BVG's philosophy is to hire external resources to meet its ad hoc needs in terms of highly specialized expertise or to even out the workload during the peak period during which it audits financial statements of the city and its reporting entities.

As I have mentioned repeatedly in previous annual reports, attracting and retaining competent resources is an ongoing challenge for the BVG. In fact, the evolution and forecasting of the BVG's workforce from 2010 to 2018 (Figure 1) eloquently illustrate that maintaining our expertise on an ongoing basis is no easy task.

Figure 1 – Evolution and Forecasting of BVG Workforce from 2010 to 2018



Indeed, we note that positions were vacant at the end of every year from 2010 to 2015. Furthermore, as I pointed out in my annual report last year, there is reason for serious concern regarding the situation over the next three years, given that:

- Three positions were vacant as of December 31, 2015;
- Six departures are planned, including three of the four members of the BVG's management team, by the end of 2018;
- The most recent hiring campaigns produced disappointing results, and in the case of the value-for-money field, even disastrous.

Although I successfully obtained the creation of senior professional positions in 2009, and even though the BVG, together with the Service des ressources humaines, examined different possibilities to mitigate the risk of losing expertise, it has become obvious that these measures did not yield the expected results.

In fact, the qualified staff that the BVG requires is difficult to find and in high demand in the private sector and with other public entities. The hiring campaigns conducted in 2015 drew a very limited number of applicants who satisfied the requirements for the position and almost none in the case of the value-for-money field.

This situation seriously threatens our ability to play our role as watchdog of the city's public finances on behalf of the elected officials and citizens of Montréal. Nonetheless, we must continue our efforts to hire qualified employees who are in line with our very high expectations.

I therefore intend to once again ask for the support of the Service des ressources humaines to help the BVG find solutions to the complex issue of maintaining its expertise. As a result of our discussions on the eve of the publication of this report, the Service des ressources humaines committed to examining a variety of possible solutions and clearing the way for my successor to pursue the mission.



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, 2015

1.4

Independence of the Auditor General



1.4. Independence of the Auditor General

The auditor general's ability to fulfil the duties of the position depends largely on the provision of sufficient financial resources and appropriate expertise in terms of human resources as well as the ability to enjoy the autonomy required to ensure her or his independence. These notions are governed by section 107 of the *Cities and Towns Act (CTA)*.

Section 107.5 of the *CTA* deals with the matter of budget appropriations that the municipality must grant to the auditor general ("chief auditor" in the *CTA*) to cover expenses relating to the exercise of the her or his duties. As a result of arguments that were first advanced by my predecessor and which I continued to make to authorities within the scope of my 2009, 2010 and 2011 annual reports, in favour of having the city change the basis for calculating the appropriations allocated to me so that I would have the necessary financial resources to carry out my duties, I won the case in 2012. Since that time, I have considered the budget appropriations allocated to me and the basis for calculating them to be appropriate.

Under the previous heading, I mentioned that attracting and retaining qualified and experienced resources remains a major challenge for the BVG.

Concerning the matter of the autonomy that must be granted to the auditor general, section 107.6 of the *CTA* provides as follows:

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.

In a notice to the auditor general concerning the management of the human resources of that office, in June 2004, the Director of Legal Affairs reaffirmed her position:

[TRANSLATION] The independence granted to the auditor general under the Act is incompatible with a discretionary review of decisions made by that person. The auditor general therefore has the authority to make all decisions concerning management of the human resources assigned to the audit.

This interpretation confirms those that I obtained to the effect that, in concrete terms, this means that, unofficially, through the effect of section 107.6 of the *CTA*, the exercise of powers or prerogatives bestowed upon a business unit falling under the jurisdiction of the municipal executive power, with regard to the resources of the Bureau du vérificateur général, will fall under the responsibility of the auditor general.

I believe that the principles of autonomy and independence now have a relatively solid base in the BVG's relations with the Service des ressources humaines, the Service des finances and the Direction de l'approvisionnement.

Moreover, I believe that files that I want to submit to city council for decisions cannot be subject to prior discretionary review by the Direction générale, a situation that occurred a few years ago years under the previous administration. Otherwise, the autonomy enjoyed by the auditor general under the provisions of the *CTA* would be seriously hampered.

The auditor general's ability to fulfil the duties of that office remains precarious and in some respects depends on the good faith of the municipal administration for its interpretation and the application of legislative provisions pertaining to the auditor general.

This threat to the autonomy and independence of the auditor general are at the source of claims made by the Association des vérificateurs généraux municipaux du Québec (the AVGMQ), which for many years has been demanding that the legislative framework governing the position of municipal auditor general be reviewed. The AVGMQ therefore applauded the government's desire to review the normative framework of the position of auditor general by introducing *Bill 83* in December of last year.

As the AVGMQ explained in the brief it submitted to the parliamentary commission last February, it is concerned about the consequences that some of the legislative proposals of *Bill 83* will have for the autonomy and independence of the municipal auditor general. It also wants the government to take advantage of the opportunity provided by *Bill 83* to update certain provisions of the existing Act by giving the person occupying this position all the tools needed to fully accomplish his or her mission. Indeed, the legislator must take action in order to ratify the importance, autonomy and independence of the municipal auditor general.

When the present report was published, it appears that the provisions of the Bill pertaining to the auditor general will be removed as a result of representations made to the parliamentary commission by the Union des municipalités du Québec (UMQ) and certain municipalities, including Montréal. In short, the UMQ would be in favour of setting up a committee to study these provisions in greater detail and ultimately make recommendations to the Minister of Municipal Affairs, Regions and Land Occupancy.

If this is the case, I seek the support of city council so that this committee will take into account the recommendations set forth in the AVGMQ's brief.



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, 2015

1.5

Final Thoughts



1.5. Final Thoughts

From the outset, my seven years as auditor general have brought me tremendous satisfaction. There is no doubt in my mind that the audits conducted by the BVG have brought about positive changes and that the municipal administration has improved during this period. However, I leave the BVG with serious concerns over the governance of the city.

First, the legislative framework governing the city introduces an element of complexity and unwieldiness in the management of municipal affairs and is a major roadblock to delivering a better performance. Furthermore, there are serious deficiencies in the accountability reporting process, especially with respect to elected officials, who receive little information on results and the performance of the city's various activities.

One of the fundamental principles governing public administration is that managers must use public funds wisely and prudently while accounting for the extent to which they effectively fulfilled the duties entrusted to them. For this purpose, the city must establish strategic directions, decide on desired levels of service, set annual performance objectives, decide on pertinent performance indicators, have appropriate information systems in place to measure performance, determine the frequency of accountability reporting, ensure that the planned accountability reporting takes place, review the reporting and take whatever necessary steps are required under the circumstances. But even though the municipal administration has taken steps in this direction, it is clear from the results of audits conducted by the BVG that a great deal of progress still remains to be made.

Also, the city must improve the integrated management of its business risks, which is an essential component of the optimal allocation of resources and prudent management of public funds.

Lastly, I would like to say goodbye to all the people with whom I have worked during the past seven years. I would like to thank my colleagues at the BVG, highly qualified individuals with an extremely strong sense of duty. More specifically, I would like to thank two of my assistants who have been with me right from the start, Robert Duquette and Serge Vaillancourt, who have devoted themselves body and soul to the cause of the BVG and have been sources of unswerving loyalty and support throughout my mandate. Lastly, I am thrilled to have had this unique opportunity to assist city council in the fulfilment of its governance duties and to serve the citizens of Montréal.

In closing, I want to share with you the following remarks, which were addressed to me while I was adding the final touches to my last annual report:

[TRANSLATION] When your mandate ends on June 2 of this year, you can leave us with your head held high because you will have fulfilled two of the auditor general's main functions with verve and flare. In performing this thankless job as the city's public funds watchdog, you have demonstrated an ability to ask the right questions and—more importantly—the courage to answer them. We are indebted to you for the mettle you have shown, often against all odds, in striving to elevate the status and tirelessly defend the independence and autonomy of the institution known as the Bureau du vérificateur général. We can only hope that your successor will be able to fill your shoes. Our office's very ability to fulfil its duties effectively is at stake.



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, 2015

2

Overview of the Bureau du vérificateur général





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, 2015

2.1

Workforce Status



2. Overview of the Bureau du vérificateur général

2.1. Workforce Status

At December 31, 2015, there were 30 employees in the Bureau du vérificateur général, compared with 28 the previous year. Worthy of note is the recruitment of a new quality assurance and professional practices officer, a position that had been vacant since fall 2014. Two senior auditors also joined the Direction certification des états financiers Ville et autres organismes.

**Table 1 – Workforce Trends
as of December 31 for 2006–2015**

Year	Total employees ^[a]
2006	35
2007	33
2008	28
2009	26
2010	30
2011	33
2012	30
2013	30
2014	28
2015	30

^[a] The workforce excludes two professionals who were released full-time for union activities for the years 2008 to 2010 and one professional for 2011.

At year-end, we had three vacant positions, all in the Direction optimisation des ressources et conformité réglementaire. We were not able to fill these positions despite a recruiting campaign undertaken during the year. Only one employee left our team this year, to retire. In addition to filling these positions, the Bureau anticipates that 20% of its workforce will leave in the short to medium term through retirement and at the end of their mandates. This estimate includes, in particular, three of the four members of the Bureau's executive team.

To summarize, our workforce status in relation to authorized positions at December 31, 2015, was as follows.

**Table 2 – Workforce Status
at December 31, 2015**

Areas	Authorized positions	Filled positions	Positions to fill
Certification	11	11	0
VFM	11	8	3
IT	8	8	0
QA	3	3	0
Total	33	30	3



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, 2015

2.2

Performance Indicators



2.2. Performance Indicators

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

We will continue to present the indicators that we consider to be the most relevant in helping the reader form an opinion about the performance of the Montreal Bureau du vérificateur général (the BVG).

These indicators are:

- Number of reports issued;
- Recommendation implementation rate;
- Use of time;
- Equal access to employment;
- Financial results.

Number of Reports Issued

Table 1 shows the number of reports produced in recent years for the financial audit as well as the value-for-money and information technology (IT) audit.

Table 1 – Number of Reports Issued from 2010 to 2015

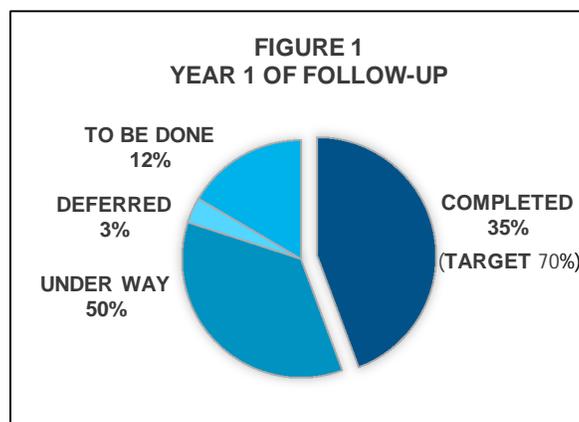
Annual report reference year	Financial statements audit			VMF and IT
	Current financial year	Previous financial years	Total	
2010	13	3	16	9
2011	9	1	10	12
2012	21	15	36	13
2013	18	1	19	11
2014	16	4	20	12
2015	16	2	18	8

The number of reports issued in 2015 was lower, mainly because the financial statements audit team did not take part in any value-for-money audits.

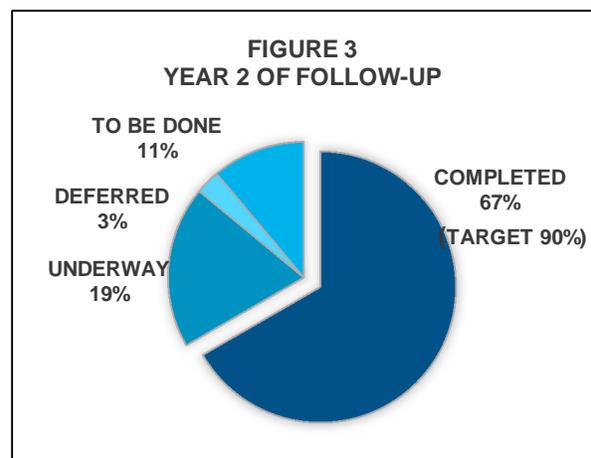
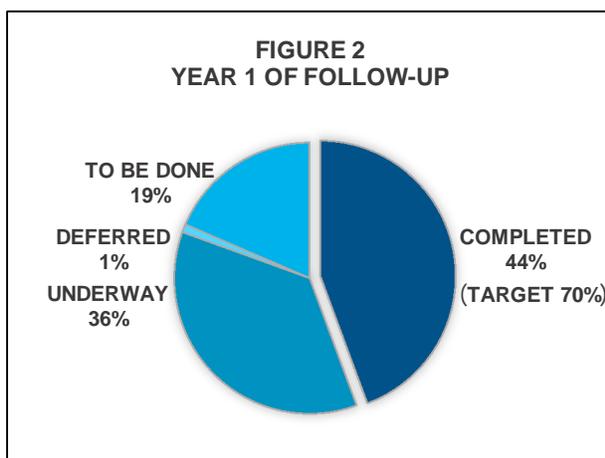
Recommendation Implementation Rate

This indicator is particularly important because it allows the reader to assess the extent to which the municipal administration takes appropriate measures to resolve the problems that trigger the recommendations we put forward. The data shown in Figures 1 to 6 illustrate, by the nature of the audit, the implementation rate for recommendations made at the end of our follow-up work in the first year as well as the second year following their publication.

Figure 1 – 2014 Recommendation Implementation Rate for the Value-for-Money and IT Audit, by Status

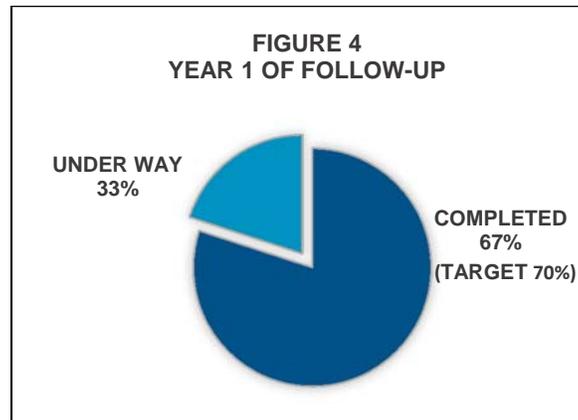


Figures 2 and 3 – 2013 Recommendation Implementation Rate for the Value-for-Money and IT Audit, by Status

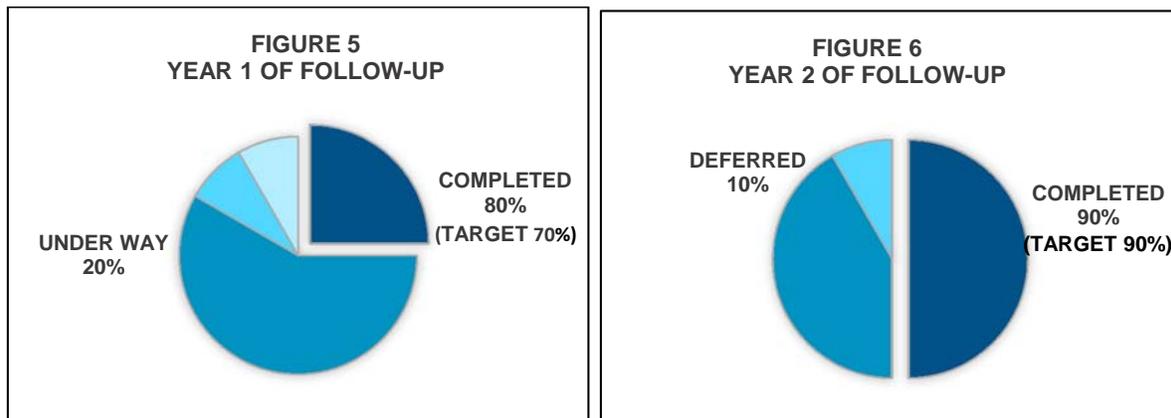


The recommendation implementation rate in the first year of follow-up dropped by 9 percentage points, from 44% in 2014 to 35% in 2013. This continues to be well below the target of 70%. The recommendation implementation rate in 2013 for the second year of follow-up was 67%, failing to reach even the 70% target for the first year of follow-up, let alone the second-year target of 90%.

Figure 4 – 2014 Recommendation Implementation Rate for the Financial Audit, by Status



Figures 5 and 6 – 2013 Recommendation Implementation Rate for the Financial Audit, by Status



The recommendation implementation rate for the 2014 financial audit was 67%, slightly below the 70% target for the first year of follow-up. In addition the 90% target implementation rate for the 2013 recommendations in the second year following their publication was achieved. Overall, these results were deemed very satisfactory.

However, we would emphasize once again this year the poor results observed among the business units in terms of implementing our value-for-money and IT recommendations. These outcomes indicate a lack of diligence and commitment to complying with the timeframes established in their action plans. Consequently, we would reiterate that the business units must again be made aware of the importance of implementing the BVG's recommendations more promptly and that city management must show leadership in this regard.

Use of Time

Figures 7 and 8 show a breakdown of total and chargeable hours for members of the BVG over the past five years.

Figure 7 – Breakdown of Total Hours

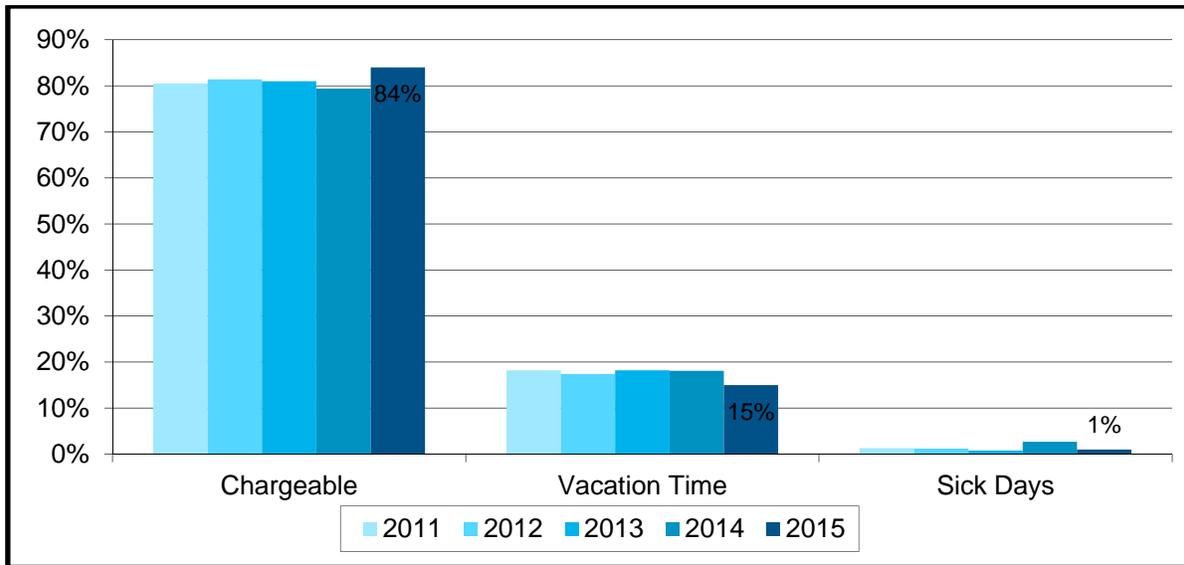
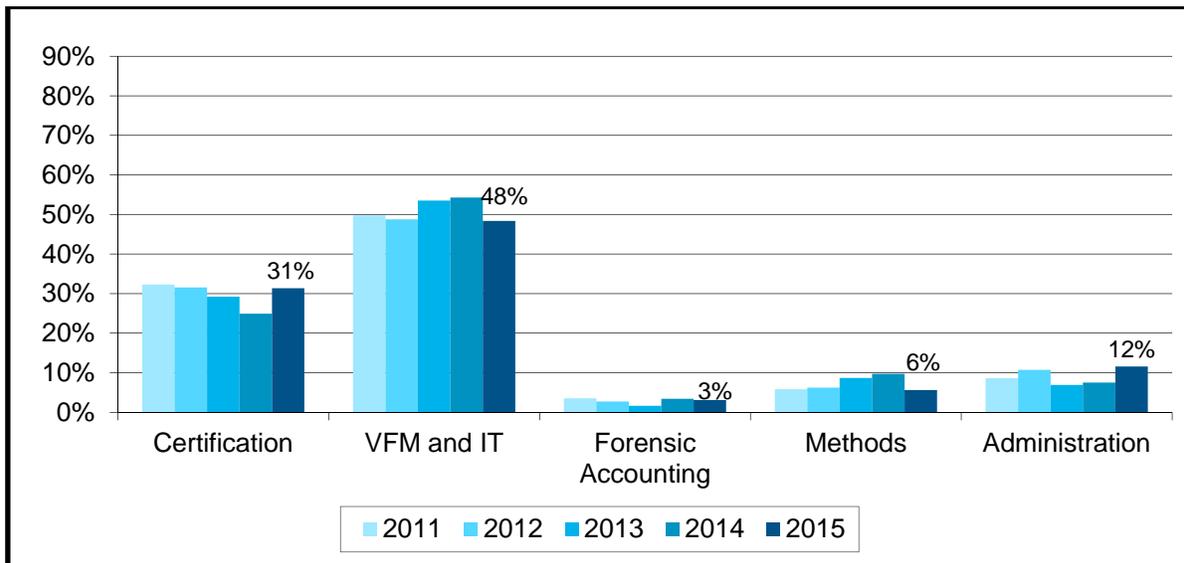


Figure 8 – Breakdown of Chargeable Hours, by Activity



VFM and IT: Value-for-Money and Information Technology audit.

Methods: Includes accounting research, quality assurance and training.

Figure 8 shows an increase in the proportion of chargeable hours related to Certification decreased activities. This is attributable to the fact that all of the positions in this division were filled this year, following the hiring of two new employees. Conversely, the retirement of one employee in the VFM division, combined with the additional time the IT division devoted to technical support, translated to a decrease in the number of chargeable hours related to VFM and IT activities. The lower number of chargeable hours in the Methods category can be explained by the fact that the position of quality assurance and professional practices officer was vacant for a nine-month period in 2015 and by the decrease in the number of hours spent on training compared with last year.

Other indicators pertaining to the use of time and staff turnover are presented in Table 2.

Table 2 – Other Indicators Pertaining to the Use of Time and Audit Staff Turnover

	Results	
	2015	2014
1. Audit staff turnover	3.4%	17.9%
2. Absenteeism	0.1%	2.4%
3. Average number of hours of training per employee	62	66
4. Ratio of training costs/payroll expenditures in accordance with the <i>Act to Promote Workforce Skills Development and Recognition</i> . The objective for all City operations is 1%.	4.9%	4.9%

The turnover rate dropped significantly, with only one staff departure during the year compared with five in 2014. We also observed a reduction in absenteeism and training hours.

Equal Access to Employment

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

The breakdown of the representation of groups targeted by the *Act Respecting Equal Access to Employment in Public Bodies* as of December 31 of the last five years is shown in Table 3.

Table 3 – Representation of Targeted Groups

Targeted group	2015	2014	2013	2012	2011
Men	46.7%	51.8%	51.6%	53.3%	59.4%
Women	53.3%	48.2%	48.4%	46.7%	40.6%

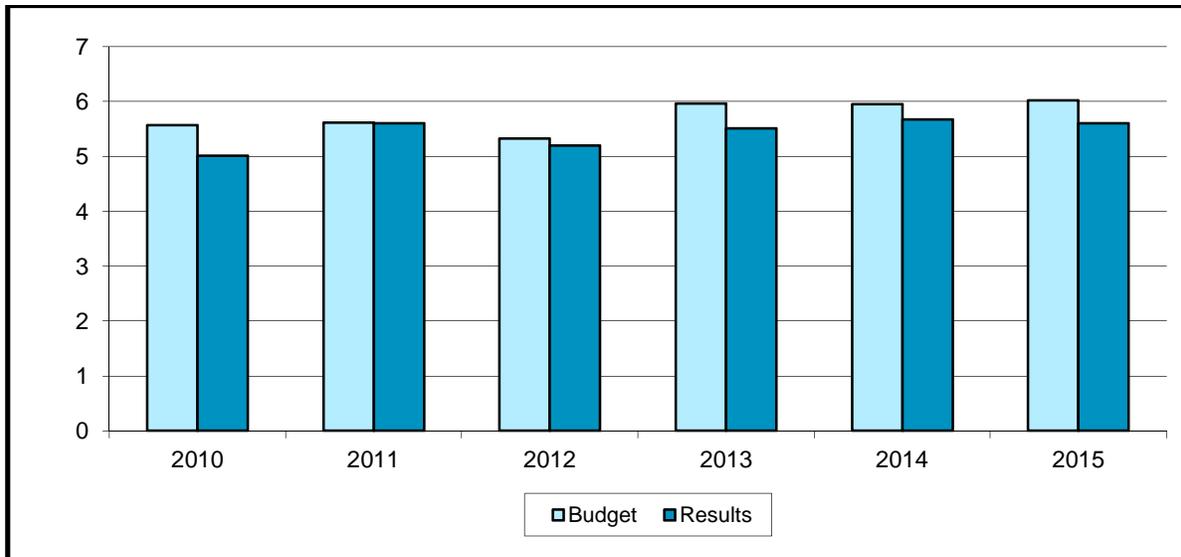
Targeted group	2015	2014	2013	2012	2011
Aboriginal persons	0.0%	0.0%	0.0%	0.0%	0.0%
Visible minorities	10%	11.1%	9.7%	6.7%	6.3%
Ethnic minorities	10%	11.1%	3.3%	3.3%	3.1%
Total	20%	22.2%	13.0%	10.0%	9.4%

We can see that the representation of women and visible and ethnic minorities within our workforce has improved significantly over this period.

Financial Results

The final indicator deals with the financial results for the BVG. Figure 9 shows these results for the past five years.

Figure 9 – Budget and Financial Results
(in millions of dollars)



In terms of financial performance for 2015, the positive variance relative to the 2015 budget is due to positions that remained vacant and the retirement of one employee at the beginning of the year. For more information about previous years, please refer to the annual reports for those years.



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, 2015

Financial Statement Audits

3





**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, 2015

3.1

**Consolidated
Financial
Statements of
Ville de Montréal**



3. Financial Statement Audits

3.1. Consolidated Financial Statements of Ville de Montréal

In accordance with the provisions of the *Cities and Towns Act* (CTA) in force on December 31, 2015, we are required to audit the City's 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 et de l'Occupation du territoire (MAMOT), using the prescribed form, by April 30.

For the fiscal year ended in 2015, we have produced a total of five audit reports regarding the City's financial statements. In April 2016, the independent auditor's reports of the auditor general of the Ville de Montréal expressing an unmodified opinion on the City's consolidated financial statements and on the breakdown of the City's mixed expenditures were issued. Both reports were included in the *Annual Financial Report* filed with the City clerk's office on April 13, 2016. Also, in April 2016, reports on the City's consolidated financial statements, on the breakdown of mixed expenditures and on the City's overall tax rate were produced. These three reports were recorded on the form required by the MAMOT.

The audit work on the City's consolidated financial statements was conducted together with a joint auditor who expressed a qualified opinion on the City's financial statements based on its different interpretation of the new accounting standard Section PS 3410 on accounting for Government Transfers.

In accordance with the provisions of the CTA, the form required by the MAMOT, along with the three above-mentioned auditor general's reports and the joint auditor's report on the consolidated financial statements were filed with the City council and the urban agglomeration council before being sent to the MAMOT on April 30, 2016.

In March 2016, at the time of the finalization of the audit of its financial statements for the fiscal year 2015, Société de transport de Montréal (STM), the main subsidiary of the City has changed its interpretation of the standard Section PS 3410 with regards to the Government Transfers for the purpose of standardization with the City. This modification has led to a

restatement of the consolidated financial statements of the City. Additional information regarding this restatement can be found in Note 3 of the consolidated financial statements of the City.



**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, 2015

3.2

**Financial
Statements of
Other Legal Entities
Subject to the
*Cities and Towns Act***



3.2. Financial statements of other legal entities subject to the Cities and Towns Act

In accordance with the provisions of the *Cities and Towns Act* (CTA) in force on December 31, 2015, we are required to audit the financial statements of other legal entities subject to the CTA that meet any of the following conditions:

- 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 identifies the other legal entities that are subject to the CTA and for which we are required to produce an audit report on their financial statements. The table also indicates the periods during which the audit reports were issued for the fiscal years ending in 2014 and 2015.

**Table 1 – Other Legal Entities Subject to the CTA and Audit Reports
Produced on Their Financial Statements as of April 30, 2016**

Other legal entities subject to the <i>Cities and Towns Act</i>	Fiscal year ended in	
	2015	2014
Anjou 80		n
Bixi Montréal	n	
Bureau du taxi de Montréal	n	n
Conseil des arts de Montréal	n	■
Conseil interculturel de Montréal		■
Corporation d'habitation Jeanne-Mance	n	■
Fiducie du Technoparc Montréal	n	■
Office de consultation publique de Montréal		■
Office municipal d'habitation de Montréal		n
Société de gestion Marie-Victorin		n
Société de transport de Montréal (2 reports)	n	■
Société en commandite Stationnement de Montréal	n	■
Société d'habitation et de développement de Montréal	n	■
Société du parc Jean-Drapeau	n	■
Technoparc Montréal	n	■
Transgesco S.E.C.	n	■

Legend:

- n Reports produced between May 1, 2015, and April 30, 2016.
- n Reports produced before May 1, 2015.



**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, 2015

4

**Value-for-Money
and Information
Technology
Audit**





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, 2015

4.1

Follow-Ups to Recommendations from Previous Years



4. Value-for-Money and Information Technology Audit

4.1. Follow-Ups to Recommendations from Previous Years

The percentage of recommendations made by the Bureau du vérificateur général (BVG) that were followed up with concrete corrective measures is a key indicator to ensure that departments and boroughs are implementing these recommendations promptly.

The policy of the BVG is to initiate a follow-up to the recommendations in the year following their appearance in the annual report. The follow-up to the recommendations issued in a given year generally extends over a maximum period of three years. Indeed, the BVG reasonably expects that 100% of the recommendations issued shall be implemented within this three-year horizon, except under very specific circumstances where certain recommendations are followed up during an additional year or two.

To evaluate the rate of implementation of the recommendations issued towards the target of 100% over a three-year period, the BVG has been using the following interim performance targets since 2013:

- **70%** of the recommendations made must be **completed** within the first year following their publication;
- **90%** of the recommendations made must be **completed** within the second year following their publication.

Thus, the recommendations made in 2012 and published in the Annual Report of the Auditor General for the year ended December 31, 2012 – concerning the value-for-money, information technology and financial audits—were the first to be measured against the 70% interim performance target. For the second year of follow-up, the rate of implementation of these recommendations made in 2012 was measured against the 90% interim performance target. The same process was applied to the recommendations made subsequently in 2013 and 2014. The recommendations made following the audit of the financial statements were published in the report on internal control deficiencies filed with Ville de Montréal’s audit committee for the year ended December 31, 2015, and previous years.

Results of the Follow-Ups to Recommendations Related to the Value-for-Money and Information Technology Audits

The results of the follow-ups to the recommendations made in the annual reports for years 2010 to 2014 are shown in Table 1.

Table 1 – Results of the Follow-Ups to Recommendations Related to the Value-for-Money and Information Technology Audits, by Status (April 2016)

Status of the recommendations	Number of recommendations per year					
	2010	2011	2012	2013	2014	Total
Completed	169	174	184	138	137	802
Under way	5	28	47	40	198	318
Deferred	1	–	1	6	12	20
Not completed	–	21	–	–	–	21
Other ¹	–	–	–	23	46	69
Total number of recommendations made	175	223	232	207	393	1,230

Regarding the 2013 recommendations more specifically, now at the end of their second year of follow-up since their publication, those whose status is considered “completed” account for 67% (65% in 2012) compared with the 90% interim performance target.

With respect to the recommendations made in 2014, those whose status is considered “completed” account for 35% (44% in 2013), compared with the 70% interim performance target set for recommendations at the end of their first year of follow-up since their publication in the auditor general’s annual report.

Looking at all recommendations made since 2010 as part of the value-for-money and information technology audits, 802 of them are completed. On a cumulative basis (over the past five years), this represents a 65% completion rate, with 26% of the recommendations under way.

¹ The business units concerned did not follow up on these recommendations, which have yet to be implemented.

Accompanying Notes to the Results of the Follow-Ups to Recommendations

Our follow-up aimed to verify that the business units take measures to implement the action plans developed on the basis of the recommendations that concern them. In this context, it is expected that the business units apply stringent measures to meet the recommendations of the BVG and follow up on the implementation of the action plans developed on the basis of these recommendations.

For many recommendations, however, our follow-up indicates that the business units did not take adequate measures to implement the recommendations or that they were not able to provide evidence of their status. Indeed, we observed the following:

- The status of 45 (20%)² of the recommendations made in 2013 and 2014 that the business units considered completed in 2015 was reverted to “Under way” because our follow-up indicated that the measures implemented by the business units did not meet the recommendations or that the business units had not been able to provide evidence of the measures taken;
- 23 (11%) of the recommendations made in 2013 and 46 (12%) of others made in 2014 for a total of 69 recommendations still remain “To be done”, which indicate that no follow-up was made by the concerned business units.

Our follow-up leads us to conclude that some business units do not give the necessary attention to the recommendations issued to them by the BVG. This is not conducive to the implementation of these recommendations within the set target of three years following their publication.

Results of the Follow-Ups to Recommendations Related to the Financial Audit

Table 2 presents the results of the follow-ups to the recommendations made in the internal control deficiencies reports of 2010 to 2014.

² Among the 44 recommendations still under way, 5 (11%) were made in 2013 and 40 (89%) were made in 2014.

**Table 2 – Results of the Follow-Ups to Recommendations
Related to the Financial Audit, by Status (April 2016)**

Status of the recommendations	Number of recommendations per year					
	2010	2011	2012	2013	2014	Total
Completed	20	16	8	9	4	57
Under way	–	–	3	–	2	5
Deferred	–	–	–	1	–	1
Not completed	2	1	1	–	–	4
Other ³	–	–	–	–	–	–
Total number of recommendations made	22	17	12	10	6	67

We observed that for the 2013 recommendations (now at the end of their second year of follow-up since their publication), those whose status is considered “completed” represent a proportion of 90%, compared with the interim performance target set at 90%. Therefore, the target has been reached.

With respect to the recommendations made in 2014, now at the end of their first year of follow-up, those whose status is considered “completed” represent a proportion of 67%, compared with the interim performance target set at 70%.

Looking at all recommendations made since 2010 as part of the financial audits, the results show that 57 of them are completed. On a cumulative basis (over the past five years), this represents an 85% completion rate, with 8% of the recommendations under way.

³ The business units concerned did not follow up on these recommendations, which have yet to be implemented.



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, 2015

4.2

Allocation of Financial Contributions



Table of Contents

1. Background.....	85
2. Purpose and Scope of the Audit.....	86
3. Main Findings.....	86
4. Audit Results.....	87
4.1. Eligibility of Bodies.....	89
4.2. Evaluation of Requests for Support	102
4.3. Allocation of Contributions Based on Priorities	117
4.4. Accountability Reporting.....	127
5. Conclusion	129
6. Appendices	131
6.1. Comparison of Original Contributions Budget with Actual Spending	131
6.2. Boroughs' Use of Surpluses to Provide Financial Assistance to Organizations	135

List of Acronyms

CDN–NDG	Côte-des-Neiges–Notre-Dame-de-Grâce	DTP	Direction des travaux publics
DAUSE	Direction de l’aménagement urbain et des services aux entreprises	NPO	non-profit organization
DCSLDS	Direction de la culture, des sports, des loisirs et du développement social	SÉAO	Système électronique d’appel d’offres

4.2. Allocation of Financial Contributions

1. Background

Central departments and boroughs have budgets that enable them to support non-profit organizations (NPOs) operating in various fields (e.g., sports and recreation, social development, community development, culture), specifically by making financial contributions to them.

To give an idea of the scale, from 2010 to 2014, contribution expenses have grown from \$87 million to \$105 million.¹ Over the same period, between 1,687 and 1,792 organizations have received financial assistance. In total, from 2010 to 2014, the Ville de Montréal (the City) has paid a total of \$480 million to 3,193 organizations, including 861 (or 27%) that were allocated contributions in every one of the five years, for a total of \$368 million (or 77%).

Of these 861 organizations, 101 were assisted solely by central departments (\$103 million), 418 were assisted solely by boroughs (\$42 million) and 342 were assisted by both levels of government (\$223 million). Overall, the amount paid out by boroughs was \$125 million and that by central departments \$243 million.

Financial contributions are generally made in response to requests for support by organizations. Some of these are granted under various financial assistance programs (such as the *Program to Support International, National and Metropolitan Sporting Events* and the *Programme de soutien financier aux initiatives culturelles*) for which the City launches calls for proposals, while others are not. Financial assistance programs are structured, as they include a general objective, eligibility criteria, evaluation criteria for analyzing the requests received and guidelines for establishing a contribution amount.

In view of the financial value of the donations made and the number of organizations supported, we consider it appropriate to ensure that contributions are allocated in an objective, transparent and fair manner. Since financial assistance programs are governed by pre-established rules and since most of them are managed by central departments, this audit covers financial contributions made by boroughs. We believe that this audit is appropriate in a context where the City's resources are limited and organizations have substantial needs.

¹ Excluding amounts paid to the Agence métropolitaine de transport (AMT), the Communauté métropolitaine de Montréal (CMM), municipal organizations audited by the City's Auditor General (including the Société de transport de Montréal [STM]), centres for local development (CLDs), commercial development corporations (SDCs) and community economic development centres (CDECs).

2. Purpose and Scope of the Audit

The purpose of the audit was to ensure that financial contributions were allocated to organizations as part of an objective, transparent process in order to achieve the objectives established. To accomplish this, we examined the existence of eligibility criteria for the organizations supported, the existence of evaluation criteria to support requests for financial assistance, the priorities taken into account and accountability reporting.

Our audit focused on financial contributions made to organizations in 2014. For some aspects, data prior to 2014 were also taken into consideration. Our audit was conducted primarily from August to December 2015, but it also took into account information that was submitted to us up until January 2016. Our audit was conducted in the Côte-des-Neiges–Notre-Dame-de-Grâce (CDN–NDG), Lachine, Verdun and Ville-Marie boroughs.

3. Main Findings

Our audit identified areas where improvements should be made, namely:

- In three of the four boroughs audited, there is currently no official process for recognizing organizations;
- While 10% of financial contributions were granted under financial assistance programs for the boroughs audited, the fact remains that the results obtained in response to calls for proposals do not show that the process is fully transparent;
- For 78% of the financial contributions that are made by the boroughs audited under a mutual agreement, evaluation criteria were not established to determine the appropriateness of requests or to determine the amount granted, reflecting a lack of transparency and objectivity;
- Evidence of compliance with eligibility criteria for purposes of recognition, evidence to show that requests for financial assistance are reviewed and evidence to justify financial contribution amounts are not always documented;
- Allocation of budget appropriations for financial contributions to the various municipal activities has not been documented in order to reflect the priorities decided on by authorities;
- Policies, commitments and plans adopted by authorities have not been expressed in measurable terms for the sections applying to financial assistance for organizations and as a result, have not been integrated into support programs, financial assistance policies and projects not covered by programs;

- Since no accountability mechanisms are used to evaluate whether measurable objectives have been achieved, boroughs are not able to evaluate whether the financial assistance provided to organizations brings any added value.

4. Audit Results

Under the *Charter of Ville de Montréal*, boroughs may provide financial assistance to organizations. According to section 137, a borough council may provide financial assistance to a body that carries on its activities in the borough and has a mission of local economic, community, cultural or social development.

Section 141 provides that a borough council shall exercise the powers of the City in respect of the parks and the cultural, sports and recreational facilities located in the borough, except those indicated in Appendix D² or in a decision made under the second paragraph of section 94.³ The borough council is also responsible for organizing recreational, sports and sociocultural activities, and for that purpose may provide financial support to bodies whose goal is to organize and foster physical or cultural activity.

In this context, Table 1 below shows the scope of the financial contribution budget available to each of the four boroughs audited based on the municipal activities with which they are associated and responsibility for those budgets.

² Large parks that fall under the responsibility of the Service des grands parcs, du verdissement et du Mont-Royal.

³ City council may provide that it exercises the powers of the City in respect of any other park or cultural, sports or recreational facility acquired or built after December 18, 2003.

Table 1 – 2014 Contributions Budgeted

Activity	CDN–NDG		Lachine		Verdun		Ville-Marie	
	Responsibility centre	Original budget	Responsibility centre	Original budget	Responsibility centre	Original budget	Responsibility centre	Original budget
General administration	Elected officials	\$65,000 (1.7%)		\$ – (–%)		\$ – (–%)	Elected officials	\$180,000 (4.2%)
Land use planning, urban planning and development	Direction des services administratifs et du greffe	\$5,000 (0.1%)	Borough management	\$30,000 (2.9%)	DCSLDS and borough management	\$125,000 (16.5%)	DAUSE	\$626,000 ⁴ (14.5%)
Environmental health	DTP	\$325,000 (8.4%)	DCSLDS	\$75,000 (7.4%)	DAUSE	\$197,100 (26.0%)	DTP	\$465,000 (10.8%)
Recreation and culture	DCSLDS	\$2,893,400 (74.8%)	DCSLDS and borough management	\$701,800 (68.8%)	DCSLDS	\$375,700 (49.5%)	DCSLDS	\$2,362,200 (54.9%)
Health and welfare	DCSLDS	\$212,600 (5.5%)	DCSLDS and borough management	\$213,700 (20.9%)		\$ – (–%)	DCSLDS	\$234,200 (5.4%)
Public safety	DCSLDS	\$252,300 (6.5%)		\$ – (–%)	DCSLDS and DAUSE	\$60,800 (8.0%)	DCSLDS	\$215,200 (5.0%)
Transportation	DTP	\$117,000 (3.0%)		\$ – (–%)		\$ – (–%)	DTP	\$224,900 (5.2%)
Total		\$3,870,300 (100%)		\$1,020,500 (100%)		\$758,600 (100%)		\$4,307,500 (100%)

Source: SIMON

⁴ While we excluded from the scope of this audit contributions made to commercial development corporations (SDCs), we included them in Table 1 to provide a complete picture of the extent of the total financial contributions budget.

In view of the budgets available in each of the boroughs audited for making financial contributions to non-profit organizations (NPOs), we evaluated the extent to which such contributions were allocated with a concern for objectivity, transparency and fairness. First, we examined whether precise criteria had been established and reviewed to determine the eligibility of the organizations supported. Second, we examined the manner in which organizations were asked to submit requests for financial assistance. We also examined whether precise criteria had been established to evaluate the requests for assistance received and to determine the amounts of the contributions granted. Third, we evaluated the extent to which financial contributions were allocated in order to meet the priorities and objectives decided upon by authorities. Finally, we examined whether accountability mechanisms existed to determine whether these objectives were achieved.

To conduct our audit, we selected organizations that had been supported by each of the boroughs audited. It should be noted that a financial donation made to a body can originate from several requests for support. For example, for the four boroughs audited, the average value of contributions paid to organizations in 2014 was \$24,045. If we consider more specifically the contributions paid to organizations that were supported in each of the past five years, the average value is \$44,537. The amounts paid as contributions vary from \$50 to more than \$1 million.

4.1. Eligibility of Bodies

4.1.A. Background and Findings

Clear, specific eligibility criteria must be established so that bodies that are potential recipients of support from the City can be selected. Both these eligibility criteria and the categories of bodies for which they are intended must be known. A process must be put in place for boroughs to be able to determine the eligibility of bodies that may potentially be selected in a fair and transparent manner.

In a legal bulletin produced in September 2014, the Service des affaires juridiques stated that in order to comply with sections 137 and 141 of the Charter, boroughs must ensure that they provide financial support to bodies that meet at least the following criteria:

- The body must carry on non-profit activities;
- The body has a mission of local economic, community, cultural or social development or has a goal of organizing and fostering physical or cultural activity;
- The body carries on its activities in the borough.

According to the interpretation of the Service des affaires juridiques, these sections of the Charter do not require bodies to be corporate entities in order to benefit from the financial assistance of boroughs. Accordingly, foundations, associations, trusts and certain cooperatives may request financial assistance. Public bodies such as schools, school boards and hospitals are also covered by these sections of the Charter.

It should be noted that these are the minimum requirements to be met. Boroughs may establish more precise, more specific eligibility criteria that apply to all bodies, to categories of bodies or to a financial assistance program.

During our audit, we examined whether the boroughs audited had established eligibility criteria and whether an official process had been established to ensure their eligibility. We also examined the extent to which boroughs were able to demonstrate the eligibility of the bodies they supported.

4.1.1. Establishment of Eligibility Criteria for Bodies

4.1.1.A. Background and Findings

From the outset, we noted differences between the management frameworks for financial assistance provided by Lachine and Verdun boroughs. Both boroughs had policies for providing organizations with financial assistance. In the Lachine borough, a policy to assist local recreational and community organizations was adopted by Lachine City council in February 1983 and last revised in March 1992, while in the Verdun borough, the Policy to support recognized organizations is adopted every year by the borough council.

For both boroughs, the policies set out clear eligibility criteria that enable the bodies covered to pre-qualify for professional, material, technical or financial support. Examination of these policies shows that they include not only the eligibility criteria provided for in the Charter, but other, more specific criteria selected by each borough as well.

In reading the two policies, we noted that the one for the Verdun borough applies to all bodies wishing to benefit from some type of support, i.e., community, social, sports, cultural, outdoor or recreational organizations. The Lachine borough policy covers organized recreational and community activities for which the participating clients are easily recognizable. However, over the past few years, certain cultural and social development organizations were supported even though certain eligibility criteria did not apply to the activities offered. Since the last review by Lachine City council dates back to 1992, we think that this policy should be updated,

since both the municipal environment and the activities supported have changed since it came into force.

In the Côte-des-Neiges–Notre-Dame-de-Grâce (CDN–NDG) and Ville-Marie boroughs, the borough councils have not officially adopted any management framework setting forth eligibility criteria applicable to all organizations so that they can pre-qualify for financial support. We did, however, note the existence of eligibility criteria associated with financial assistance programs that were approved by authorities. It should be noted that financial assistance programs account for only a small proportion of the financial contributions granted (10%).

When it comes to recognizing a body for the purpose of eventually providing it with financial assistance, the lack of a management framework specifying eligibility criteria leads to a lack of transparency and consistency. We think that the CDN–NDG and Ville-Marie boroughs should have a policy for supporting bodies that sets forth eligibility criteria for all bodies.

4.1.1.B. Recommendation

We recommend that the Lachine borough update its local recreational and community organization assistance policy so that it applies to bodies that are likely to receive support.

Business unit's response:

[TRANSLATION] The Lachine borough organization recognition policy is currently being drafted. It will be presented to officials in the coming weeks. We hope to have it adopted at the May 9, 2016, borough council meeting. All affected organizations will be met with over the course of 2016. (Planned completion: January 2017)

4.1.1.C. Recommendation

We recommend that the Côte-des-Neiges–Notre-Dame-de-Grâce and Ville-Marie boroughs have their respective borough councils approve a support policy that specifies eligibility criteria to qualify all targeted bodies and promotes transparency and fairness in the recognition process.

Business units' responses:

CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH

[TRANSLATION] Prepare a draft Frame of Reference for NPO recognition and support that will include:

Section 1 – Directional statements;

*Section 2 – Recognition. **(Completed)***

Meet with existing partner NPOs in subgroups.

*Table the file for adoption at the June 26 borough council meeting. **(Planned completion: July 2016)***

VILLE-MARIE BOROUGH

[TRANSLATION] Table, for adoption at the borough council meeting, a recognition and support policy for NPOs that includes:

- a process for recognizing organizations and maintaining this recognition;*
- categorization of the organizations according to criteria;*
- the support that can be offered to organizations based on eligibility and relevance criteria; and*
- accountability requirements. **(Planned completion: February 2017)***

4.1.2. Organization Recognition Process

4.1.2.A. Background and Findings

Of the four boroughs audited, only the Verdun borough has an organization recognition process, which is officially included in the policy to support recognized bodies that was adopted by the borough council. This process is carried out once a year, before any of the financial support is provided. Bodies must demonstrate their eligibility by applying for recognition with the DCSLDC. Following its review of the requested documents, the borough sends a letter to the bodies to notify them that recognition has either been accepted or refused. Bodies that have already been recognized must maintain this recognition through an annual update of the information requested. At the end of this annual exercise, the borough's list of recognized bodies is appended to the support policy submitted for adoption by the borough council.

The Lachine borough does have a support policy in which eligibility criteria appear, but there is no official process for recognizing and maintaining recognition for bodies. According to the information obtained, eligibility criteria are instead taken into account throughout the year, whenever requests for financial support from bodies are reviewed. Moreover, in 2010, as part of budget cutbacks, the borough council adopted a moratorium preventing new bodies from being accepted. At present, because there is no official recognition process, and because of

the moratorium, bodies do not have an equal chance of being recognized, which translates into a lack of transparency. Furthermore, according to the information obtained, there is a list of nearly 135 recognized organizations, but it has never been approved officially by the borough council. This is an administrative document, and about thirty of the organizations appearing on this list should be struck from it. We think that the borough council should approve an updated list of bodies that have been recognized following an official process for recognizing them and maintaining their recognition.

The CDN–NDG and Ville-Marie boroughs also have no official process for recognition and maintaining recognition. As with the Lachine borough, the absence of an official recognition process means that bodies do not have an equal chance of being recognized, which lacks transparency. We also think that since there are no clearly expressed eligibility criteria, there is a risk of favouring bodies that do not meet the minimum requirements set out in the sections of the charter. However, according to the managers we met with, in order to obtain support, bodies must be recognized by management and show that they are in good standing. This recognition is unofficial. We think that a list of bodies that are recognized following a process for recognizing and maintaining recognition should be approved by the borough councils. It should be noted that, at the time of our audit, the CDN–NDG borough was working on developing an organization recognition policy.

Moreover, in determining the eligibility of bodies, whether as part of a formal recognition process or at the time requests for support are reviewed, documents are required to support the decision made. The four boroughs have differing practices in this area. The support policies for the Lachine and Verdun boroughs refer to a list of required documents. However, in the first case, bodies are required to provide those documents, while in the second case, they must only do so upon request. We think that receipt of those documents should be a required part of the recognition process so that complete files showing the eligibility of bodies can be compiled.

As for the CDN–NDG and Ville-Marie boroughs, since they do not have an official management framework in which eligibility criteria would appear, they do not formally require all the bodies seeking some form of support to provide documents proving their eligibility. According to the information obtained, the required documents are requested, but only for bodies receiving financial assistance. However, in the case of financial assistance programs for which boroughs use a call for proposals process, there is a list of required documents, but only for the purposes of these programs, and not to allow bodies to be officially recognized. The fact that there is no management framework setting out the same rules for all bodies is not fair.

In conclusion, since the status of being recognized allows bodies to obtain not just financial assistance, but material, professional or technical support as well, and since it also allows them to benefit from preferential rates for the leasing of premises or equipment, we think that borough councils should decide on standard eligibility criteria and an official recognition process that is carried out before any support is provided. We also think that an official recognition process would allow for greater transparency and fairness in determining the eligibility of bodies. Clearly, with such a process, available resources could be used more efficiently and a wider range of services could be offered to citizens.

4.1.2.B. Recommendation

We recommend that the Côte-des-Neiges–Notre-Dame-de-Grâce, Lachine and Ville-Marie boroughs establish a process for recognizing and maintaining recognition of bodies that is separate from the process of evaluating requests for financial assistance, for the purpose of showing transparency and fairness in decisions made.

Business units' responses:

CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH

[TRANSLATION] Table, for adoption at the June 26, 2016, BC meeting, the draft Frame of Reference for NPO recognition and support. (Planned completion: June 2016)

Receive, handle, and accept or reject requests to maintain recognition for current partners' whose agreement ends on August 31 in order to maintain activities and services as of September 1, 2016. (Planned completion: July 2016)

Conduct a public process for recognition or maintenance (duration of recognition: five years). (Planned completion: September 2016)

LACHINE BOROUGH

[TRANSLATION] The process for recognizing organizations and maintaining this recognition has been clearly defined in the new version of the organization support policy.

The recognition process will begin in January 2017 and the list of recognized organizations will be approved by the borough council.

Requests for support are separate from the recognition process. It is the organizations' responsibility, once recognized, to request support from the various programs accessible to them based on their category. (Planned completion: January 2017)

VILLE-MARIE BOROUGH

[TRANSLATION] This process, which is separate from support request evaluations, will be implemented at the time of the adoption of the recognition and support policy for NPOs. (Planned completion: February 2017)

4.1.2.C. Recommendation

We recommend that the Côte-des-Neiges–Notre-Dame-de-Grâce, Lachine and Ville-Marie boroughs have the list of recognized bodies approved by their borough councils in order to formalize the recognition of bodies and make the process more transparent.

Business units' responses:**CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH**

[TRANSLATION] Have the list of NPOs whose recognition has been maintained adopted at the August 8 borough council meeting. (Planned completion: August 2016)

LACHINE BOROUGH

[TRANSLATION] Approval of the list of organizations recognized by the borough council is included in the new organization support policy. (Planned completion: January 2017)

VILLE-MARIE BOROUGH

[TRANSLATION] Once the policy is adopted, a first list of recognized organizations will be presented to the borough council for approval. It will be updated periodically for adoption by the council. (Planned completion: April 2017)

4.1.2.D. Recommendation

We recommend that the Côte-des-Neiges–Notre-Dame-de-Grâce, Lachine, Verdun and Ville-Marie boroughs include, as part of their recognition process, a list of documents to be provided by bodies to demonstrate their eligibility.

Business units' responses:**CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH**

[TRANSLATION] Prepare a draft Frame of Reference for NPO recognition and support. (Completed)

Edit the documents.

Table the file for adoption at the June 26 borough council meeting. (Planned completion: June 2016)

LACHINE BOROUGH

[TRANSLATION] The list of documents to be provided is clearly laid out in the new organization support policy. Said documents will have to be provided on an annual basis in order for the organization to maintain its recognition. (Planned completion: January 2017)

VERDUN BOROUGH

[TRANSLATION] Organization recognition and support policy under review since January 2015.

List of documents to provide, reviewed and included in the 2017 policy. (Planned completion: January 2017)

Adoption of the new policy by the borough council.

Deploy a communication plan. (Planned completion: December 2016)

VILLE-MARIE BOROUGH

[TRANSLATION] The list of documents to be provided by organizations wishing to be recognized by the Ville-Marie borough will be included in the recognition and support policy for NPOs. (Planned completion: February 2017)

4.1.3. Compliance with Eligibility Criteria for Bodies

4.1.3.A. Background and Findings

We evaluated whether boroughs that have established eligibility criteria for bodies that are potential recipients of support were able to demonstrate that they met the criteria. To do this, we conducted surveys to determine whether boroughs had evidence that the bodies receiving support met the criteria and whether they made sure that they had received the requested documents from the bodies.

First, for files examined in the Lachine and Verdun boroughs, we noted that evidence of compliance with eligibility criteria was missing or inadequate. For the Lachine borough, a few files were involved while for Verdun borough, most of the files were involved. Such a situation shows that the control exercised regarding file compliance was not carried out with the necessary rigour, and therefore the boroughs are not able to justify their decision to recognize a body or not. This poses a risk that non-eligible organizations may be recognized and receive some kind of support.

Moreover, for one file examined in the Lachine borough, the available evidence even confirmed that it did not meet one of the eligibility criteria in force. According to the criterion in question, Lachine residents must make up 80% of the bodies' clients. In two other cases, the file showed no evidence of compliance with this criterion. In the opinion of the manager we met with, this criterion is restrictive for some bodies, while for others it is difficult to apply. According to the information obtained, when the support policy was adopted by the former Lachine City council, this criterion applied primarily to amusement clubs. Since that time, the borough chose to support bodies even if they were not able to show that this criterion was met, which was the case with one of the two bodies, whose activity consists of organizing a festival. According to the established criteria, in these three cases, the borough should not have considered the bodies eligible and, accordingly, should not have provided them with support. We think that this eligibility criterion established in 1992 no longer reflects the present-day reality of the borough, as clients and their needs have changed over time. We believe that it should be reviewed, because at present, not enforcing the policy is causing a lack of consistency and sending the wrong message to bodies.

Moreover, for one of the files examined in the Verdun borough, we noted a problem with the interpretation of an eligibility criterion. The criterion in question provides that the body must:

- be incorporated under Part III of the *Companies Act* and have a community, social, sports, cultural, outdoor or recreational vocation as well as have its head office in the Verdun borough; OR⁵
- be Montreal-wide (**PANAM**);⁶ OR
- be representative.⁷

The body supported was not incorporated under Part III of the *Companies Act*, but rather under the *Amusement Clubs Act*, although it was a NPO. Furthermore, while its activities were held in the borough, its head office was not in the Verdun borough. It also was not Montreal-wide. The body therefore met this eligibility criterion as a "representative" body. According to the wording of the criterion in force, the body was in compliance; however, the criterion, as worded, could allow a body to qualify without being a NPO, which violates the minimum requirements set out in the sections of the municipal charter. According to the borough's interpretation, in order to comply with this eligibility criterion, bodies must be incorporated under Part III of the *Companies Act*, have their head office in the borough AND be a representative body or a Montreal-wide body (PANAM). If this interpretation is used, the body in question should not have had the status of "recognized" because it is not registered

⁵ Our emphasis.

⁶ NPO in the sports and recreation sector offering services to citizens with disabilities in several Montreal boroughs.

⁷ Body giving priority to and serving mostly Verdun clients, with at least twelve (12) participants that have a valid Accès Verdun card and of which no more than two (2) participants live at the same address.

under Part III of the *Companies Act*, and because its head office is not located in the borough. This body should therefore not have received support. In light of the discrepancies presented here, it is imperative that the borough ensure that its policy complies with the Charter sections and that the rules set out in its recognition process are followed.

Moreover, for all the files examined in Verdun borough, we found no evidence of compliance with the criterion concerning the bodies' ability to be self-sufficient and carry on their activities. According to the information obtained, this criterion is not defined in measurable terms and managers therefore do not know how to evaluate it. We think that the support policy should specify the meaning of this eligibility criterion.

Concerning the receipt of the necessary documents for recognizing or maintaining the recognition of bodies, as mentioned above, we found that some of these were not available (e.g., the body's annual declaration) or were insufficient for the purpose of determining eligibility (e.g., the financial statements). It seems as though organizations perceive compliance with such obligations as a formality, since failure to provide the required documents rarely leads to any consequences. We think that recognition policies should clearly specify the deadlines for providing mandatory documents, the minimum information they must contain and the consequences of not producing them, which could ultimately include revocation of "recognized" status.

Second, for the CDN–NDG and Ville-Marie boroughs, since eligibility criteria were officially established only for support programs, we examined whether the applicants' files included proof of compliance with them. For the CDN–NDG borough, we noted that compliance with the eligibility criteria set out in the *Programme montréalais de soutien à l'action citoyenne en sécurité urbaine dans les arrondissements–Tandem* and the *Programme Éco-quartier 2012-2014* was shown in the files of bodies that had applied for support. We made the same observation for the Ville-Marie borough concerning the *Programme de soutien aux initiatives culturelles (volet I et volet II)* and the *Programme d'accessibilité aux loisirs*.

Moreover, we wanted to ensure that, for the four boroughs, evidence had been recorded or obtained to show that organizations had been deemed ineligible. In the case of the Lachine and Verdun boroughs, we were not able to obtain such assurance because the process is not formally documented. We think that such a situation fails to show the transparency of the process. We believe that these boroughs should provide a mechanism to keep evidence in the file. Concerning the CDN–NDG borough's support programs, none of the proposals received was considered ineligible. Concerning the Ville-Marie borough's *Programme de soutien aux initiatives culturelles*, we noted that evidence had been retained for organizations that were considered ineligible.

Third, in the Lachine and Verdun boroughs, responsibility for the support and recognition policies falls to the Direction de la culture, des sports, des loisirs et du développement social (DCSLDS). With regard to the Lachine borough, for the past few years, the financial contribution budget has provided for a contribution to an environmental organization. Since the DCSLDS manages the financial assistance policy, the eligibility criteria stipulated in it should normally apply to all bodies included in its contributions budget; however, not all criteria apply to this environmental organization, hence the importance of specifying categories of bodies. In the Verdun borough, the issue is different. It is also the DCSLDS that applies the official recognition process to organizations supported through its contributions budget. However, other organizations that are supported by the borough and that fall under the responsibility of other departments bypass the official recognition process managed by the DCSLDS. As a result, eligibility criteria stipulated in it are not enforced and other criteria specific to these organizations have also not been established. In our opinion, such a situation lacks consistency in the handling of organization recognition. While the CDN–NDG and Ville-Marie boroughs do not yet have a recognition policy, the same problem is likely to be encountered, because the bodies supported fall under the responsibility of the DCSLDS, the Direction des travaux publics (DTP) and the Direction de l'aménagement urbain et des services aux entreprises (DAUSE). We think that the boroughs' recognition policy should apply to all the bodies that they support. In 4.1.2.C, we recommended that the CDN–NDG and Ville-Marie boroughs produce such a policy.

4.1.3.B. Recommendation

We recommend that the Lachine and Verdun boroughs review the appropriateness of the eligibility criteria set out in their support policies to make it easier to demonstrate that organizations have met them and to standardize their interpretation.

Business units' responses:

LACHINE BOROUGH

[TRANSLATION] The eligibility criteria have been reviewed and standardized for all the organizations wishing to obtain recognition and support from the borough. (Planned completion: January 2017)

VERDUN BOROUGH

[TRANSLATION] Organization recognition and support policy under review since January 2015.

List of documents to provide, reviewed and included in the 2017 policy. (Planned completion: January 2017)

Validate with all of the employees, respondents and stakeholders. (Planned completion: September 2016)

Organize a focus group with organizations to validate all the modifications. (Planned completion: September 2016)

Adoption of the new policy by the borough council.

Deploy a communication plan. (Planned completion: December 2016)

4.1.3.C. Recommendation

We recommend that the Verdun borough ensure compliance with the rules provided for in its recognition process to show transparency and fairness toward those who submit requests for support.

Business unit's response:

[TRANSLATION] Resource assigned to the analysis of the organization recognition process since November 2015.

Overview of the situation, analysis and recommendations in progress.

Review the organization recognition management process.

Training given to employees/respondents to harmonize the management process and ensure all organizations are treated fairly. (Planned completion: November 2016)

4.1.3.D. Recommendation

We recommend that the Côte-des-Neiges–Notre-Dame-de-Grâce, Lachine, Verdun and Ville-Marie boroughs set out in their support policy clear rules concerning a deadline for bodies to comply with the requirements, the consequences of non-compliance with those requirements and the procedures that boroughs can follow if such a situation arises in order to protect the City's interests.

Business units' responses:

CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH

[TRANSLATION] Prepare a draft Frame of Reference for NPO recognition and support. (Completed)

Validate sections 1 and 2 of the draft Frame of Reference with a working committee (DCSLDS and six partners).

Table the file for adoption at the June 26 borough council meeting. **(Planned completion: June 2016)**

Publish the Frame of Reference for NPO recognition and support on the website and promote it. **(Planned completion: July 2016)**

LACHINE BOROUGH

[TRANSLATION] A time frame will be provided for organizations to meet the recognition and support requirements. A procedure has been created for non-compliance with these requirements. It sets out various steps, including a first notice, a follow-up, a notice explaining the consequences of not complying and a procedure for withdrawing the recognition and the privileges that come with it. **(Planned completion: January 2017)**

VERDUN BOROUGH

[TRANSLATION] Clear rules regarding the time frames and consequences of non-compliance included in the policy. **(Planned completion: January 2017)**

Information meetings organized to communicate these changes to the groups. **(Planned completion: December 2016)**

Train employees/respondents to ensure the process is followed. **(Planned completion: December 2016)**

VILLE-MARIE BOROUGH

[TRANSLATION] These rules will be included in the recognition and support policy for NPOs. **(Planned completion: February 2017)**

4.1.3.E. Recommendation

We recommend that the Côte-des-Neiges–Notre-Dame-de-Grâce, Lachine, Verdun and Ville-Marie boroughs ensure that they put together complete files showing compliance or non-compliance with eligibility criteria by organizations seeking to be recognized or to maintain their recognition in order to justify their decisions and ensure greater transparency.

Business units' responses:

CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH

[TRANSLATION] Develop a procedure for the analysis of eligibility as well as the forms required to highlight the following possibilities:

- Recommendation to maintain recognition;
- Recommendation to recognize;
- Recommendation not to recognize. **(Planned completion: June 2016)**

The tools developed are used to create lists to be tabled at the August 8 and December 5, 2016, borough council meetings. (Planned completion: December 2016)

LACHINE BOROUGH

[TRANSLATION] Forms have been created for a recognition request or a request to maintain this recognition. Each request will be analyzed based on the policy criteria. The form will have to be accompanied by required support document and these will be kept in the file. Each file includes a summary sheet of the documents it contains. These forms will be shared with the working group made up of the audited boroughs. (Planned completion: January 2017)

VERDUN BOROUGH

[TRANSLATION] Review organization recognition eligibility and update forms. (Planned completion: October 2016)

Implement a formal approval process that falls under the responsibility of the division head. (Planned completion: October 2016)

Train employees/respondents to ensure the process is followed. (Planned completion: November 2016)

VILLE-MARIE BOROUGH

[TRANSLATION] These files including the completed analysis and compliance grid for each request will be created when the recognition and support policy for NPOs is implemented. Organization recognition will be effective for six years, unless the relationship between the borough and the organization changes or the organization no longer meets the criteria for its category. (Planned completion: April 2017)

4.2. Evaluation of Requests for Support

4.2.A. Background and Findings

After obtaining recognition, bodies are eligible to receive financial support. To demonstrate transparency, there must be mechanisms to allow all eligible bodies to submit a request for financial assistance in the relevant field. In addition, criteria must be established to evaluate the requests received in an objective and consistent manner and to determine the amount of the contribution granted. A documented evaluation process must be established to justify the choice of requests or proposals, as well as to support the amount granted.

To facilitate understanding of the support request evaluation process, we first drew up a profile showing the distribution of financial contributions made in 2014, according to the type of support chosen by the boroughs audited (see Table 2). For presentation purposes, here is

what each type of support involves. Financial assistance programs cover contributions that were allocated in response to calls for proposals. Financial assistance policies, while structured for the targeted clients, are not subject to market solicitation by the boroughs. Other types of financial assistance include donations made to organizations by mutual agreement, either on the City's initiative, at the request of the body or as a result of a partnership between the two.

Table 2 – Distribution of Contribution Expenses in 2014 by Type of Support

Type of support	CDN-NDG	Lachine	Verdun	Ville-Marie	TOTAL
Support programs	\$575,300 ^[a] (13%)	\$ –	\$ –	\$627,900 ^[b] (11%)	\$1,203,200 (10%)
Financial assistance policy	\$ –	\$687,266 ^[c] (68%)	\$308,698 ^[d] (33%)	\$ –	\$995,964 (9%)
Other type of support - Mutual agreement	\$3,655,329 ^[c] (85%)	\$210,000 ^[e] (20%)	\$618,771 ^[c] (67%)	\$4,770,589 ^[c] (85%)	\$9,254,689 (78%)
Granted by an elected official (discretionary budget)	\$64,990 (2%)	\$114,996 (12%)	\$ – ^[f]	\$189,069 (4%)	\$369,055 (3%)
Total	\$4,295,619	\$1,012,262	\$927,469	\$5,587,558	\$11,822,908

^[a] Programme montréalais de soutien à l'action citoyenne en sécurité urbaine dans les arrondissements-TANDEM and Programme Éco-quartier.

^[b] Programme d'initiatives culturelles; Programme de soutien financier au développement commercial and Programme de soutien à l'accompagnement en loisirs (accessibilité universelle).

^[c] By difference: total expenditures excluding the other types of support.

^[d] Financial assistance policy and Programme d'accompagnement en loisirs (budget allowance of \$10,000).

^[e] Éco-quartier activities and street theatre festival.

^[f] Support granted to organizations is not accounted for separately and are therefore included in the other types of section – by mutual agreement as shown in the note above.

Source: Data from the City accounting system (SIMON) and minutes, and data obtained from boroughs.

Overall, for the four boroughs audited, a small proportion of the financial contributions was paid under support programs and financial assistance policies. We found that the vast majority of contributions were not covered by programs. Only the Lachine borough differs in this regard since most of its financial contributions were made under its financial assistance policy.

It should be noted that when the City has a business relationship with a NPO, it is not required by any provision of the *Cities and Towns Act* or any administrative framework to conduct a call for proposals process before allocating financial contributions. The City chooses to do this voluntarily, which explains the small number of financial contributions granted under this allocation method.

During our audit, for each of these types of support, we evaluated whether evaluation criteria had been established to determine both the nature and the amount of the request. We also evaluated the existence of documented evaluation processes used to justify the appropriateness and amounts of the financial contributions granted.

4.2.1. Contributions Made Under Support Programs

4.2.1.A. Background and Findings

A support program is developed to achieve a general objective that the borough has set for itself. A budget allowance is provided for this purpose so that financial contributions can be granted to organizations in response to calls for proposals. This method is transparent when all eligible bodies have an opportunity to submit proposals. In order to show that proposals were handled fairly and objectively, guidelines must be determined on matters such as evaluation criteria, type of financial support and amounts of financial assistance granted. Moreover, an evaluation process must then be established so that each proposal received can be evaluated on the basis of pre-established weighting. Through the resulting overall evaluation, the proposals received can be either accepted or refused.

Of the four boroughs audited, only the CDN–NDG and Ville-Marie boroughs launched calls for proposals on the open market to set up financial assistance programs. The number of calls for proposals is low, however, and the budget allocation provided for support programs accounts for only 13% and 11% of these boroughs' total financial contributions budget, respectively.

For the CDN–NDG borough, there are two support programs. The first is the *Programme montréalais de soutien à l'action citoyenne en sécurité urbaine dans les arrondissements-TANDEM*, approved by City council in 2003. According to the guidelines for this program, boroughs were to select their partners in response to an open call for proposals and conclude three-year agreements. Since the program began, the CDN–NDG borough has launched open calls for proposals twice: once in 2003 (2004–2006 period) and once in 2009 (2010–2012 period). A provision in the agreements provided for renewal for the subsequent period, which is also the case for the 2013–2015 period. For this last period, the proposed budget for each year was \$250,000.

The second is the *Programme Éco-quartier*, which was set up by the DTP. This program also involves three-year agreements that are concluded with organizations. For this program, the borough launched a call for proposals in 2011 for the 2012–2014 agreement. The proposed

budget for each year was \$325,000. We note here that launching a call for proposals was really a matter of choice, because the other three boroughs audited preferred instead to grant contributions for a *Programme Éco-quartier* by mutual agreement.

As for the Ville-Marie borough, it used a call for proposals process twice in 2014, once for the *Programme de soutien financier aux initiatives culturelles*, which has two components, and once for the *Programme accessibilité aux loisirs*. In the first case, the budget allowance was \$260,000 and in the second it was \$35,000.

Ultimately, the use of a call for proposals process for support programs shows a desire for transparency. We therefore wanted to ensure that the procedure had allowed all eligible bodies to submit requests for support. To accomplish this, we examined both the solicitation methods and the number of requests received.

First, we found that the ways in which support programs are publicized in order to obtain proposals varied from one case to the next (e.g., publicizing on the borough's website, the Système électronique d'appel d'offres (SÉAO), sending emails) (see Table 3). We also noted, in the case of the CDN-NDG borough, that few proposals had been received in response to the call for proposals, which limits the results of the evaluation and raises questions. When the call for proposals for the *Programme Éco-quartier* was launched, the borough's territory had been divided in two, two proposals were received and two contributions were granted. For the *Programme TANDEM*, a single proposal was received and a single contribution was granted. We believe that the borough should review these situations in order to identify possible causes of the results obtained and to ensure that necessary corrective measures are taken so that more organizations can submit a proposal when upcoming open calls for proposals are launched.

Table 3 – Support Programs in the Boroughs Audited

Programs	Solicitation method	Publicizing method	Amount disclosed	Number of proposals received	Number of proposals accepted	Average value of contributions
CDN–NDG <i>Programme Éco-quartier (2012–2014)</i>	Public call for proposals	<i>Le Devoir</i> newspaper and SÉAO	Yes	2	2	\$162,500
CDN–NDG <i>Programme montréalais de soutien à l'action citoyenne en sécurité urbaine dans les arrondissements (TANDEM) (2013-2015)</i>	Open call for proposals	The borough's website	Yes	1	1	\$250,000
Ville-Marie <i>Programme de soutien financier aux initiatives culturelles (2014)</i>	Open call for proposals	The borough's website and invitation emailed to targeted bodies	Maximum amounts provided for in components I and II	56	30	\$8,666
Ville-Marie <i>Programme d'accessibilité aux loisirs</i>	Call for proposals by invitation		No, this was a budget to be allocated	7 ^[a]	7	\$5,000

^[a] Out of 10 invitations emailed by the borough, three organizations did not respond.

Source: Information obtained from boroughs

As for the Ville-Marie borough, the two support programs were designed so that calls for proposals could be launched every year. The results obtained for the *Programme de soutien financier aux initiatives culturelles* show greater transparency since 56 of the 200 organizations that received invitations made proposals, giving the borough several options to choose from. For the *Programme d'accessibilité aux loisirs*, this was a call for proposals by invitation, which is clearly less transparent than a public call for proposals. However, we recognize that the budget is a factor to be taken into account.

Second, since the CDN–NDG and Ville-Marie boroughs had chosen to launch calls for proposals for four programs, we examined whether they had evaluated the proposals received on the basis of pre-established criteria.

We noted that the programs in the two boroughs clearly described the evaluation criteria forming the basis of evaluation for the proposals received. In order to have assurance that the choice of organizations selected was transparent and fair, we examined the existence and composition of evaluation committees, the evaluation process and documentation. We noted that selection committees had been set up for the four support programs; however, we found that there were differences in practices. The composition of the committees was different from one support program to another, both in terms of the number of committee members and their level in the hierarchy. Concerning documentation of the evaluation

process, we noted the presence of initialled and signed evaluation grids in the case of the CDN–NDG borough. On the other hand, for the Ville-Marie borough, most evaluation grids were not annotated and signed for the *Programme de soutien aux initiatives culturelles*. For the *Programme montréalais de soutien à l'accompagnement en loisirs (accessibilité universelle)*, we found no evidence that such grids had been produced. We think that rules governing the operation of evaluation committees and the evaluation process should be developed to standardize practices and to show that contributions are granted to organizations based on assessment of the evaluation criteria.

Third, in terms of the amount of financial assistance, we noted that different amounts were submitted for each program. For its two support programs, the CDN–NDG borough indicated the financial contribution amount. This was a budget allowance bodies were asked to use as a basis for submitting proposals. For the Ville-Marie borough, both components of the *Programme de soutien financier aux initiatives culturelles* clearly showed a maximum amount of financial assistance that organizations could receive. For the *Programme d'accessibilité aux loisirs*, the support program did not disclose this information in writing.

Consequently, only the support programs of the Ville-Marie borough provided that the amount of financial assistance could be established on the basis of an assessment of the evaluation criteria. We therefore would have expected the amount granted to be documented and consistent with a directive on the contribution level (e.g., in accordance with expected traffic, potential visibility, budget) or consistent with the evaluation note, but our examination of the files did not corroborate our expectations. For the *Programme de soutien financier aux initiatives culturelles*, the files examined contained an evaluation grid showing the contribution amount granted, with no other comment or justification entered. Such a practice does not justify the amount granted, and shows a lack of transparency. Concerning the *Programme d'accessibilité aux loisirs*, our audit did not reveal whether the determination of the amount of financial assistance was linked to evaluation criteria. We therefore could not be certain that the organizations had been evaluated fairly.

With respect to the CDN–NDG borough, the process currently in place does not allow contribution amounts to be allocated on the basis of evaluation criteria. As mentioned above, the amount of the contribution is already announced when the call for proposals process is launched, and applicants therefore already know the amount made available to them, regardless of the evaluation. We were not able to obtain the criteria used to establish this budget. In our opinion, this practice, combined with the fact that few proposals were received, is not objective. We believe that the establishment of contribution amounts should be documented so that it is possible to evaluate whether the proposals received meet the borough's expectations.

In conclusion, although the tendering process is a good way to proceed, we think that the shortcomings observed do not promote transparency in the decisions made and do not provide us with assurance that requests were handled fairly. Accordingly, we think that rules must be established to provide a framework for the call for proposals process for financial contributions.

4.2.1.B. Recommendation

We recommend that the Côte-des-Neiges–Notre-Dame-de-Grâce borough analyze the results obtained in response to calls for proposals when few organizations submit proposals in order to determine the causes and be able to take the necessary corrective measures to receive several proposals during the next solicitation.

Business unit's response:

[TRANSLATION] In accordance with the programs, adhere to the established awarding method, produce a process report and make the necessary adjustments as needed. (Planned completion: December 2016)

4.2.1.C. Recommendation

We recommend that the Ville-Marie borough ensure that both the evaluation of proposals and the amounts of financial assistance provided by selection committees are recorded in the files to show transparency and fairness in the decision-making process.

Business unit's response:

[TRANSLATION] In the area of culture, the recommendation is applied as part of the Programme de soutien aux initiatives culturelles. (Planned completion: April 2016)

In the area of sports, recreation and social development, the recommendation will be applied gradually in all cases where there will be a call for tenders. (Planned completion: April 2016)

With regard to the other departments, the recommendation will be applied. (Planned completion: October 2016)

4.2.1.D. Recommendation

We recommend that the Côte-des-Neiges–Notre-Dame-de-Grâce borough document the establishment of pre-established financial contributions amounts in order to assess whether the proposals received meet the borough’s expectations.

Business unit’s response:

[TRANSLATION] Determine the calculation methods to establish the contribution amount for each of the programs in section 3 of the Frame of Reference for NPO recognition and support. (Planned completion: August 2016)

4.2.1.E. Recommendation

We recommend that the Direction générale develop rules governing the operation of selection committees and the evaluation process for calls for proposals aimed at allocating financial contributions to organizations in order to standardize the boroughs’ practices.

Business unit’s response:

[TRANSLATION] The Direction générale will ask the board of borough directors to examine the tools that could be developed and implemented to structure the awarding of financial contributions by call for proposals. (Planned completion: February 2017)

4.2.2. Contributions Granted under a Financial Assistance Policy

4.2.2.A. Background and Findings

As mentioned above, of the four boroughs audited, only the Lachine and Verdun boroughs have a financial assistance policy. The Lachine borough’s policy provides financial assistance to organizations for recreational and community activities for several specific types of clients (e.g., children, teenagers, the elderly, disabled persons, youth sports and culture enthusiasts, community partnership, public festivals, cultural development, recreational facility management). For each of these categories, the policy sets out standards for allocating financial contributions, hereinafter referred to as “allocation standards.”

With regard to the Verdun borough its financial assistance policy provides support for the activities of youth aged 17 and under and the creation of new organizations. In this case, the

allocation standard corresponds to the distribution of budget allocations on the basis of hours of participation.

First, we wanted to ensure that financial assistance policies allowed all eligible organizations to submit requests for support. Under the Lachine borough policy, while eligible organizations involved in the recreational and community activities of various clients are eligible, a moratorium on the recognition of new organizations has been in place since 2010. Clearly, such a decision does not allow all eligible organizations to submit requests for assistance. For the Verdun borough, as a rule, all recognized organizations that comply with the financial assistance program criteria and make a request for assistance receive a financial contribution, which makes the allocation process more transparent.

However, in our opinion, one of the eligibility criteria limits this transparency. This is the criterion through which the borough recognizes any body that differs from another body that is already recognized, either through the services it offers or its clients. While the borough may wish to diversify the services offered through this criterion, the fact remains that the “first come, first serve” basis is not necessarily a way of promoting fairness among organizations wishing to benefit from a financial contribution. To ensure fairness and transparency in the process of allocating financial contributions, we believe that this criterion should be taken into consideration not at the time of recognition, but rather at the time financial contributions are allocated, and on the basis of evaluation criteria. It should be noted that this is also one of the eligibility criteria for the Lachine borough and, therefore, the same findings apply.

Second, our audit was aimed at ensuring that contributions were allocated on the basis of pre-established criteria. The policies in force do not specify pre-established evaluation criteria to evaluate requests for support in relation to each other; however, they set out standards or rules for determining financial contribution amounts.

As for the Lachine borough, its financial assistance policy defines an allocation standard by type of eligible body; for example, an amount per participant or a fixed amount. It does not, however, specify criteria for establishing this amount per participant. In the case of the fixed amount, it provides general criteria, but not guidelines for determining a contribution amount.

In accordance with its by-law for the delegation of powers to public servants and employees, every year the borough council approves standards for determining the amounts of contributions granted to recognized organizations. It should be noted that this was the only one of the four boroughs audited in which responsibility for approving contributions under \$25,000 was delegated to the DCSLDS director. For 2014, a list of 52 organizations that the

borough intended to support, the method of calculating each contribution and an estimate of the anticipated contribution was approved by the borough council.

Our examination of the allocation standards shown on this list revealed differences in terms of the amount per participant. The amount varies between \$15 and \$200 per participant, depending on the organization supported. According to the information obtained, criteria used to justify the establishment of an amount per participant were not documented. At first glance, such a situation does not demonstrate equitable treatment of the bodies or transparency in the process. We think that the establishment of such allocation standards should be based on pre-established, documented criteria.

During our audit, we ensured, on a test basis, that the financial contribution amounts paid had been determined according to established allocation standards and that the establishment of this amount was documented. First, our audit revealed that most of the contributions examined (8 out of 10) did not comply with the allocation standards appearing in the financial assistance policy revised in 1992 by Lachine City council. In section 4.1.1, we recommended that the borough's policy be updated. Since contributions are paid throughout the year under allocation standards adopted every year by the borough council, we examined whether these new allocation rules were being followed when the actual amount of contributions was determined. We noted two cases of non-compliance with these allocation rules. We also found that the analysis conducted by the borough to justify the unit amounts granted, such as amounts per participant, was not documented. As a result, we did not find any evidence to justify the situations of non-compliance with the allocation standards.

For the Verdun borough, the total amount distributed every year is equal to the budget appropriations established at the beginning of the year. The only criterion used to establish the financial contribution amount is the proportion of total hours of participation of each young participant residing in the borough, up to a maximum amount. The contributions are allocated on the basis of the actual results of the previous year.

4.2.2.B. Recommendation

We recommend that the Lachine and Verdun boroughs review the eligibility criterion according to which a body cannot operate in a sphere of activity already covered by another body so that all eligible requests for financial assistance can instead be assessed on the basis of evaluation criteria.

Business units' responses:

LACHINE BOROUGH

[TRANSLATION] The non-overlap eligibility criterion has been reviewed and replaced with the following criterion: "An eligible organization must offer services, products or activities that provide benefits to the local population and are in line with the mission and priorities of the DCSLDS." (Planned completion: January 2017)

VERDUN BOROUGH

[TRANSLATION] The activity overlap criterion has been clarified: "To qualify, an organization must offer services, products or activities in line with the mission and priorities of the DCSLDS. If these services, products or activities are already offered by other organizations, a special committee will be assigned to analyze the request. Its decision will be final." (Planned completion: January 2017)

4.2.2.C. Recommendation

We recommend that the Lachine borough document the criteria used to establish the allocation standards approved every year by the borough council in order to show transparency in the allocation of financial contributions.

Business unit's response:

[TRANSLATION] Specific programs including several criteria have been created to ensure the fair and equitable awarding of financial contributions. These programs form an integral part of the support policy and will be approved by the borough council. (Planned completion: January 2017)

**4.2.3. Contributions Granted to Organizations
by Mutual Agreement**

4.2.3.A. Background and Findings

As illustrated in Table 2 of section 4.2, 78% of all contributions made by the four boroughs audited were paid to organizations by mutual agreement.

This type of support is dramatically greater in the CDN–NDG and Ville-Marie boroughs because of amounts paid to partner organizations. It should be noted that the support provided to partners has been in place since 1996, before the boroughs were even created. These are primarily organizations that receive support for organizing recreational activities, youth programs, competitive sports, sports clubs, holiday clubs and sports centre management. In addition to partners, the four boroughs also support organizations in carrying

out various projects, holding events associated with various municipal activities or financially supporting their activities. Projects receive support at the request of organizations, boroughs or round tables.

As mentioned above, during this audit we wanted to evaluate whether all eligible organizations had an equal chance of obtaining support. First, since three of the four boroughs audited do not have a formal recognition process, this limits the ability of organizations to become officially recognized and therefore eligible. Furthermore, when such a large share of the financial contributions budget is allocated to organizations under a mutual agreement, and a sizeable share of the organizations has received financial assistance for at least 5 years, this raises questions for us about the fairness of the process of allocating financial contributions.

As part of our audit, we also looked for the existence of evaluation criteria enabling boroughs to objectively determine the appropriateness of requests for support. We also sought to determine whether criteria existed for the establishment of financial contribution amounts. The results of our audit did not confirm our expectations. We think that the lack of pre-established criteria is likely to make the process of analyzing requests and determining contribution amounts a subjective one.

Despite the lack of evaluation criteria, we nevertheless questioned the managers we met with on the type of analysis conducted before financial contributions are granted to organizations. For those granted to partners in the sports and recreation field, they are renewed from one period to the next, generally for three years. According to the information obtained, the analysis consists in evaluating the implementation of the action plan agreed on by the parties for the ended period. However, managers were not always able to provide us with a written evaluation justifying the renewal of agreements (showing the achievement of set objectives related to boroughs' priorities). Yet, when it comes time to renew contributions, a new action plan is agreed on for another three-year period. We also questioned them on the determination of contribution amounts. However, the people we met with were unable to provide us with the criteria originally used to establish contribution amounts (in 1996). According to the information obtained, the contributions made were simply renewed from one period to the next, taking an indexation into account, but not conducting any actual analysis to demonstrate that the amount was still appropriate.

Other organizations receive financial contributions under recurring agreements or for special projects. The recurring agreements involve virtually identical amounts that are renewed by mutual agreement once a year or every three years for the borough's specific needs. The amounts paid to organizations often correspond to the amounts they requested through a

draft budget or a financial package. During our audit, we noted that boroughs rarely questioned the amounts requested by organizations.

Other requests for financial assistance, such as those made by non-partner organizations, are received throughout the year. According to the information obtained, the analysis conducted consists in ensuring that organizations are in good standing and have funds available in the budget.

In conclusion, for financial contributions made on a mutual agreement basis, there was no evidence of any actual analysis conducted to support or refute the appropriateness of providing organizations with financial assistance. Such a situation does not demonstrate transparency and objectivity in the allocation of contributions to organizations. Since boroughs manage public funds, we think it is imperative that rules be established concerning boroughs' analysis of the requests for assistance they receive from organizations. Moreover, by providing support to organizations through mutual agreements and responding to special requests for support, boroughs cannot evaluate organizations in relation to each other and ensure that the proposals retained are the most in line with their expectations and priorities.

For all these reasons, we think that boroughs should rely more on calls for proposals in which pre-established criteria are used to evaluate organizations so that the projects selected are those that are most in line with their expectations and priorities.

4.2.3.B. Recommendation

We recommend that the Côte-des-Neiges–Notre-Dame-de-Grâce, Lachine, Verdun and Ville-Marie boroughs determine criteria to evaluate the appropriateness of a request and establish the financial contribution amounts to be paid to organizations in order to show that the process is objective.

Business units' responses:

CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH

[TRANSLATION] Determine the criteria used to evaluate the relevance of a request and to establish the financial contribution amount for each of the programs in section 3 of the Frame of Reference for NPO recognition and support. (Planned completion: August 2016)

LACHINE BOROUGH

[TRANSLATION] Specific criteria have been established for each of the financial support programs. Amounts associated with each program have been determined.

Forms will have to be completed for each request and organizations will have to provide a series of support documents determined in the policy. **(Planned completion: January 2017)**

VERDUN BOROUGH

[TRANSLATION] Financial support program eligibility criteria reviewed and included in the policy.

Financial support analysis request form incorporated. **(Planned completion: January 2017)**

VILLE-MARIE BOROUGH

[TRANSLATION] Criteria to evaluate the relevance of a request and to set the level of financial support will be included in each of the local programs. **(Planned completion: February 2017)**

4.2.3.C. Recommendation

We recommend that the Côte-des-Neiges–Notre-Dame-de-Grâce, Lachine, Verdun and Ville-Marie boroughs document the analysis of requests for support in the file and justify in writing the financial contribution amounts paid to organizations in order to show that the process is objective.

Business units' responses:

CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH

[TRANSLATION] Develop a procedure and the necessary forms to highlight the possible results of the analysis:

- Request accepted;
- Request accepted with modification;
- Request refused.

Implement a procedure with regard to the necessary documents to include in each request. **(Planned completion: August 2016)**

LACHINE BOROUGH

[TRANSLATION] Every financial contribution awarded to an organization will undergo an analysis based on the criteria specific to the various programs stipulated in the policy. A form has been created for each of the programs. **(Planned completion: January 2017)**

VERDUN BOROUGH

[TRANSLATION] Analysis grid systematically included in the file.

Support request analysis form systematically completed and included in the file. **(Planned completion: October 2016)**

VILLE-MARIE BOROUGH

[TRANSLATION] A standard request analysis form will be developed on which all the information will be recorded, and it will be kept in the file. **(Planned completion: December 2017)**

4.2.3.D. Recommendation

We recommend that the Côte-des-Neiges–Notre-Dame-de-Grâce, Lachine, Verdun and Ville-Marie boroughs look into the possibility of adopting, as part of their financial support policies, programs under which projects are selected through calls for proposals, in order to promote a service offer that meets their needs and priorities, promote greater transparency in the process, and help ensure that the best possible offers are obtained.

Business units' responses:

CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH

[TRANSLATION] Determine, based on various criteria, the awarding methods to be used for the various support programs that will be described in section 3 of the Frame of Reference for the recognition and support of NPOs.

For the programs adopted by other authorities, follow the established method.

In both cases, produce a process report to determine the necessary adjustments as needed. **(Planned completion: August 2016)**

LACHINE BOROUGH

[TRANSLATION] Several programs have been created based on the needs and priorities of the borough:

- summer entertainment program;
- road work program;
- urban safety program;
- recreational coaching program;
- intercultural relations program.

These programs will be subject to calls for proposals.

Accountability reporting will be performed for each of the programs. **(Planned completion: January 2017)**

VERDUN BOROUGH

[TRANSLATION] New programs included in the 2017 policy.

Based on the type of support offered and the amount available, the relevance of going to tender will be systematically evaluated.

*Recurring contributions: a systematic evaluation will be conducted when agreements are renewed to assess the relevance of going to tender. **(Planned completion: January 2017)***

VILLE-MARIE BOROUGH

*[TRANSLATION] The support funds and programs and related analysis grids will be tabled at the borough council meeting in order to be included in the 2017 budget. **(Planned completion: December 2016)***

In the areas of sports, recreation and social development, certain projects are already receiving support following a call for proposals. When the NPO recognition and support policy is drafted, other programs will be targeted to launch calls for proposals.

*Accountability reporting will be performed for each of the programs. **(Planned completion: February 2017)***

4.3. Allocation of Contributions Based on Priorities

4.3.A. Background and Findings

In a context in which boroughs manage public funds and resources are limited, requests for financial assistance from organizations should be accepted only if they are consistent with the priorities of the municipal administration⁸ and contribute to the achievement of set objectives.

In the previous sections, we examined the processes in place to determine the eligibility of organizations submitting requests for financial assistance and to evaluate these requests. In this section, we evaluated the extent to which boroughs' priorities and objectives were taken into account when financial contributions were allocated to organizations.

For the four boroughs, we first examined changes in the financial contribution budget over the past five years to determine priority areas, and we compared it with actual expenditures.

⁸ For the purposes of this report, the municipal administration includes the boroughs.

4.3.1. Changes in the Financial Contribution Budget and Expenses for the 2010–2014 Period

4.3.1.A. Background and Findings

For the boroughs audited, we examined the allocation of the original financial contributions budget among municipal activities for the years 2010 to 2014 (see Appendix 6.1). Our findings are as follows:

- The budget is allocated among municipal activities in different proportions depending on the borough;
- The largest share of budget appropriations is in the “recreation and culture” activity for each borough, but in proportions representing 40% to 80% of the total financial contributions budget;
- The importance placed on support for other activities varies with each borough. For example:
 - unlike the other two boroughs, the CDN–NDG and Ville-Marie boroughs provide organizations with assistance for the “transportation” activity;
 - unlike the Lachine borough, the CDN–NDG, Verdun and Ville-Marie boroughs provide organizations with financial assistance for the “public safety” activity;
 - the Lachine borough allocates a greater proportion of its financial contribution budget to the “health and welfare” activity than the other three boroughs.

This situation can be explained largely by the fact that under their jurisdictions, boroughs are required to offer recreational sports and sociocultural services. According to the choices made, services are offered to the public either directly by boroughs or through partner organizations. For the other so-called social development activities (health and welfare, public safety, transportation, land use planning, urban planning and economic development), boroughs support organizations by choice. Such a situation accounts for the large share of the financial contributions budget in the “Recreation and Culture” activity compared to other activities and the total contributions budget.

We would have liked to see evidence that an exercise was carried out to justify the allocation of budget appropriations for financial contributions among each of the municipal activities, taking into account the administration’s priorities and objectives. According to the information obtained, such an exercise was not available. Instead, budget appropriations are allocated according to a financial framework made available to each department and renewed from year to year. The fluctuation of budgetary appropriations from one year to the next can be explained by the financial assistance provided to new organizations, the indexation of recurring contributions or by budget cuts, without any actual prioritization exercise taking place.

By adopting the original budget, authorities in turn approve the allocation between each of the municipal activities contained in it. Since this could also be interpreted as approval of the priorities for each expense item, including financial contribution expenses, we compared the budgetary appropriations initially approved with actual expenditures for the 2010–2014 period to assess whether the original budget reflected reality. As shown in the tables presented in Appendix 6.1, the findings are as follows:

- For each year, the total actual financial contribution expenses are almost always greater than the original budget for the CDN–NDG (variance ranging from 7% to 11%), Verdun (variance ranging from -3% to 47%) and Ville-Marie (variance ranging from 30% to 61%) boroughs;
- For each year, the actual expenditures per municipal activity are often greater than the corresponding budgetary appropriations for the CDN–NDG, Verdun and Ville-Marie boroughs. We note a greater difference in the Ville-Marie borough, especially in activities related to social development (transportation, environmental health and public safety).

To spend amounts greater than the original budget, boroughs must either release budgetary appropriations from other categories of expenses or use unallocated surpluses. It should be noted that over the course of the year, appropriations may be transferred in accordance with administrative frameworks and that, according to the directive “Utilisation des surplus, réserves et revenus,”⁹ (use of surpluses, reserves and revenues) boroughs have no restrictions with regard to the use of available surpluses.

In our opinion, this practice poses the risk that requests for support from organizations will be accepted with no real concern for the original budget authorized by City council. This also poses the risk that requests for support that are not quite in line with priorities or do not contribute to set objectives will be accepted. There is also a risk that organizations will be granted a contribution amount greater than that set out in support program guidelines.

In view of these risks, we closely examined the audited boroughs’ use of the surplus for financial contribution purposes from 2010 to 2014. We noted that the CDN–NDG, Verdun and Ville-Marie boroughs chose to use the surplus (see Appendix 6.2). For the year 2014 in particular, these boroughs managed to allocate, for financial contribution purposes, budget appropriations equivalent to a 5%, 18% and 34% increase, respectively, over their original budget.

⁹ C-RF-SF-D-09-002, guideline approved by the City manager on February 26, 2010.

For each of these boroughs, we identified bodies that received financial assistance through available surpluses (see Table 4) and we examined the purposes for which they received support.

Table 4 – Statistics on Organizations that Received Support through Available Surpluses – 2014

	CDN–NDG	Verdun	Ville-Marie
Number of organizations that received support in 2014	129	55	171
Number of organizations that received support through available surpluses	15 (19%)	2 (4%)	33 (19%)

Our findings are as follows:

- These are generally special projects for which organizations had approached the boroughs;
- For the CDN–NDG, Verdun and Ville-Marie boroughs, organizations that received support through available surpluses had already received support through budget appropriations initially provided for in the original budget, i.e., 13 (87%), 1 (50%) and 15 (45%), respectively;
- For the Ville-Marie borough:
 - 20 out of 33 bodies (61%) were funded on a recurring basis by surpluses;
 - 7 out of 33 bodies (20%) operated in the field of culture. Six of them had had their requests for support refused under the *Programme de soutien aux initiatives culturelles*, while one other organization had already received a contribution under this program;
- For the CDN–NDG borough, following cutbacks in the operating budget for social development support, organizations continued to receive funding, but through available surpluses.

When financial contributions are recurring, this creates expectations in organizations. A body that receives a contribution one year expects the same contribution the next year.

In conclusion, the differences observed between the original contributions budget and actual expenses raise questions for us concerning the establishment of real priorities.

4.3.1.B. Recommendation

We recommend that the Côte-des-Neiges–Notre-Dame-de-Grâce, Lachine, Verdun and Ville-Marie boroughs document the allocation of budget appropriations for financial contributions among the various municipal activities so that they reflect the priorities decided on by authorities.

Business units' responses:

CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH

[TRANSLATION] Prepare a tool on distribution once the programs are deployed. Make observations according to priorities. Make the necessary changes when reviewing the programs (every five years).

Implement a dynamic dashboard to be tabled annually when preparing the budget.

Review every five years at the same time as the program review. (Planned completion: June 2017)

LACHINE BOROUGH

[TRANSLATION] Every year, when the borough budget is adopted, an evaluation of the allocation of budget appropriations for financial contributions will be conducted based on the borough's priorities. (Planned completion: December 2016)

VERDUN BOROUGH

[TRANSLATION] Allocation of budget appropriations for contributions re-evaluated every three years when the policy is reviewed. (Planned completion: June 2016)

VILLE-MARIE BOROUGH

[TRANSLATION] When the budget process is conducted, departments will make budget adjustments in order to have the appropriations needed to meet their objectives primarily with regard to programs. (Planned completion: December 2016)

4.3.2. Relationship Between Each Borough's Financial Contributions and Objectives

4.3.2.A. Background and Findings

Since each borough has its own socioeconomic reality, mechanisms must be established to determine the needs of its population. It is clear that these needs are both in the area of sports and recreation as well as in social development. Since these needs can be substantial, priorities must be established. To meet these needs, objectives must be set and measures must be taken to achieve them. Support is one of these measures.

When boroughs support organizations, they must make decisions regarding priorities that have been determined based on knowledge of the population's needs. For example, certain activities, clients or categories of organizations can be prioritized. At the same time, when boroughs decide that providing assistance to organizations is their preferred method of achieving the objectives set out in policies, commitments or action plans, this must be expressed as measurable objectives in support programs.

4.3.2.1. Population's Needs

4.3.2.1.A. Background and Findings

Each borough has a population profile exhibiting different characteristics and needs. In the sports and recreation field, a boroughs' knowledge of the population's needs affects the services it offers and helps it to make choices in terms of which clients or types of activities to support. In the area of culture and social development, the population of each borough also has needs or expectations. Special problems can also exist in boroughs (such as homelessness and poverty). Since boroughs collaborate on a voluntary basis with stakeholders in these fields, mechanisms must be established to determine needs and monitor their progress. This knowledge is also useful to boroughs in prioritizing activities or projects to support.

We found that boroughs possessed such a socio-demographic profile to help guide their service offer. They determined the needs of their population through round tables set up on their territories. The Ville-Marie borough has additionally launched a continuous improvement initiative based largely on satisfaction surveys conducted among clients served by the supported organizations.

For each of the boroughs, we did not find a statement of priorities approved by the borough council, based on knowledge of the population's needs in the areas of sports and recreation, and culture and social development. In sports and recreation, only the Verdun borough made an official decision regarding the prioritization of "youth" in the financial assistance policy adopted by its borough council. For the CDN-NDG and Ville-Marie boroughs, the borough councils have not made any official, general decisions regarding their priorities for financial contributions, namely through an assistance policy; however, for more than 20 years, they have been providing recurring support for the organization of sports and recreational activities and youth summer camps. As for the Lachine borough, the financial assistance policy mentions various priority clients (youth, families, disabled persons and the elderly). The people we met with stated that the needs addressed by boroughs 20 years ago may no longer be the same and should therefore be validated.

Our audit also revealed that in many cases, boroughs accepted requests for assistance to meet needs defined by the organizations themselves or by various groups of organizations (e.g., the youth table). We do not question the reasons why such assistance is requested or even the needs determined by organizations; however, we are entitled to ask whether the clients or areas of activity targeted by these requests genuinely correspond to the population's needs and to the priorities that boroughs want to support.

4.3.2.1.B. Recommendation

We recommend that the Côte-des-Neiges–Notre-Dame-de-Grâce, Lachine, Verdun and Ville-Marie boroughs establish and maintain mechanisms for determining the public's needs in all areas within their jurisdiction so that borough councils can make decisions regarding the priorities they plan to support with organizations.

Business units' responses:

CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH

[TRANSLATION] Analyze the clientele and needs (every five years – identification). Determine the findings. Conduct consultations. Make changes to the various programs (every five years). Implement a dynamic dashboard to be tabled annually.

Review every five years at the same time as the program review, taking into account changes in the sociodemographic portrait. (Planned completion: June 2017)

LACHINE BOROUGH

[TRANSLATION] To ensure that the organization support policy meets the needs and priorities of the borough, a review of the policy will be conducted at least every five years. In between, changes can also be made as needed. The five-year review will allow for observations to be made and changes to be brought to the various programs. Various tools can be used to prepare for this review (satisfaction survey, sociodemographic portrait, and so on). (Planned completion: January 2017)

VERDUN BOROUGH

[TRANSLATION] Review the current policy, adoption planned for the end of June 2016.

Review based on the 2015–2025 strategic plan, developed in 2014:

1,500 individuals, citizens, organization representatives, new business owners and employees participated in the consultation aimed at determining the borough's priorities.

Review the policy every three years, allowing for priorities to be reviewed if need be. (Planned completion: January 2017)

VILLE-MARIE BOROUGH

[TRANSLATION] Currently, the needs of the population are evaluated based on the following elements:

- The three-year evaluation of local issues and priorities conducted by the three roundtables associated with the Initiative montréalaise de soutien au développement social, which are essentially local action plans;
- The sociodemographic profiles of the Ville-Marie districts from Montréal en statistiques, whose data come from Statistics Canada. **(Completed)**

The recognition policy and programs will be reviewed every six years to meet the needs and priorities of the borough. **(Planned completion: February 2017)**

Sporadic adjustments will still be possible, however.

4.3.2.2. Measurable Objectives Guiding Support for Organizations

4.3.2.2.A. Background and Findings

Over the past few years, City council has adopted policies and plans in the areas of sports, sustainable development and other aspects of social development. These include:

- the *Universal Accessibility Policy*, adopted in 2011;
- the *Montreal Community Sustainable Development Plan 2012–2015*, adopted in 2012;
- the *Plan d'action municipale pour les aînés* (municipal action plan for the elderly), adopted in October 2012;
- the *Sports and Physical Activity Policy*, adopted in 2014.

For their part, borough councils can approve policies, local action plans or their commitment to adhere to some of the policies approved by City council. Of the four boroughs audited, the CDN–NDG borough was the most active in this area over the past few years. In particular, it approved:

- the *2005–2008 Social Development Action Plan*, adopted in February 2005;
- the *Family Action Plan*, adopted in 2008;
- the *2008–2012 Green Plan*, adopted in 2008;
- the *Policy to Promote a Healthy Lifestyle*, adopted in two phases, one in 2010 and one in 2011;
- the *2012–2015 Local Sustainable Development Plan*, adopted in 2012;
- the *Declaration for a Healthy Borough*, adopted in 2013;
- the *Ville de Montréal's sports and physical activity policy*, adopted in 2014.

General objectives guide each of these policies, plans and declarations.

As for the Lachine, Verdun and Ville-Marie boroughs, although it was not as easy to identify policies and action plans set forth by borough councils, the fact remains that the policies, commitments and plans approved by City council concern them too.

As for the Ville-Marie borough, according to the information obtained, some of the policies and action plans approved by City council have provoked a thought process aimed at establishing priorities regarding actions aimed at improving the sports service offer. Moreover, one of the goals adopted by the DCSLDS of Ville-Marie borough in its 2014 strategic guidelines was to increase residents' participation in and satisfaction with the services offered.

In reading through these policies, commitments, action plans and strategic guidelines, we did not find any evidence, however, that providing financial support to organizations is necessarily the best approach to achieve the intended goals. This is a choice made by the boroughs. When boroughs determine that the support they provide to organizations is in line with these policies, commitments or action plans, this choice must be reflected in support programs, and must be expressed as measurable objectives. Thereafter, financial contributions should be allocated solely to projects and activities that are likely to help achieve the measurable objectives set by each borough.

As part of our audit, we evaluated whether the borough councils' policies, commitments and action plans were taken into account in the allocation of financial contributions. First, the boroughs audited allocate financial contributions under support programs and financial assistance policies. Generally, for such types of support, we find a general objective and sometimes specific objectives; however, for the four boroughs, our audit revealed that these stated objectives are not measurable. Concerning support that is not covered by programs and not covered by financial assistance policies (support provided by mutual agreement), we found that no measurable objectives had been established referring to policies, commitments or action plans approved by authorities.

Such a situation does not allow boroughs to show the extent to which the objectives set have been achieved as a result of amounts paid to organizations. They are therefore unable to show that support for organizations provides any added value.

4.3.2.2.B. Recommendation

We recommend that the Côte-des-Neiges–Notre-Dame-de-Grâce, Lachine, Verdun and Ville-Marie boroughs express, in terms of measurable objectives, the guidelines set out in policies, commitments and plans adopted by their borough council so that they can integrate them into their financial assistance programs and policies or projects not covered by programs.

Business units' responses:

CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH

[TRANSLATION] Gradually review the objective drafting models based on the new list of partners and new programs.

Develop a dynamic dashboard to be tabled annually.

Review every five years at the same time as program reviews, taking into account changes in the sociodemographic portrait. (Planned completion: June 2017)

LACHINE BOROUGH

[TRANSLATION] All programs were created with consideration for our priority clientele and issues on our territory. Indicators will have to be developed to ensure follow-up of the relevance and performance of the various programs. (Planned completion: January 2017)

VERDUN BOROUGH

[TRANSLATION] Review the policy based on the directions and priorities of the strategic plan.

References to the plans, policies and commitments adopted by the borough council included in the new policy. (Planned completion: January 2017)

VILLE-MARIE BOROUGH

[TRANSLATION] Objectives will be established for the policies that will gradually be part of the activities or programs of the Ville-Marie borough.

Establishment of measurable objectives for the Ville de Montréal Cultural Development Policy that apply to the mission of the Ville-Marie borough. (Planned completion: December 2017)

4.4. Accountability Reporting

4.4.A. Background and Findings

In order for borough management to be informed on the achievement of the objectives set in support programs, financial assistance policies and various projects not covered by programs, structured accountability mechanisms need to be put in place. Management reports must be produced regularly to inform them about achievements and, if applicable, provide reasons to justify the results obtained.

As part of our audit, we investigated the mechanisms put in place to report on the results of the allocation of financial contributions. As we mentioned at the beginning of this report, support programs, financial assistance policies and the various projects not covered by programs are managed by various departments within the boroughs audited. According to the information obtained in each of the boroughs audited, there is no real accountability reporting process that can be used to evaluate whether the objectives set in a policy or program have been achieved. This does not surprise us, since the support programs and policies did not include measurable objectives allowing for an actual evaluation of the expected results. Furthermore, at present, since a large number of requests for financial assistance are not covered by programs, accountability reporting that focuses on a common objective is not carried out by the various management teams.

In view of the substantial amounts spent on financial contributions to organizations, we think that accountability mechanisms must be put in place so that boroughs can evaluate whether the support they provide to organizations brings real added value to the boroughs and even to the City as a body. We also think that evaluating the results obtained should make it possible to determine whether a support program or financial assistance policy should be maintained or whether corrective measures need to be taken regarding the allocation of resources and establishment of priorities.

4.4.B. Recommendation

We recommend that the Côte-des-Neiges–Notre-Dame-de-Grâce, Lachine, Verdun and Ville-Marie boroughs establish regular accountability reporting processes in relation to the objectives set in the various support programs and various financial assistance policies adopted by authorities so that they can evaluate the results obtained by all the organizations receiving support.

Business units' responses:

CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH

[TRANSLATION] Draft a procedure and the tools for the annual evaluation. Train staff. Inform NPOs. Develop a dynamic dashboard. Table an annual report. (Planned completion: June 2017)

LACHINE BOROUGH

[TRANSLATION] An annual accountability reporting process is included in the organization support policy. Indicators will have to be developed to ensure follow-up of the relevance and performance of the various programs. (Planned completion: January 2017)

VERDUN BOROUGH

[TRANSLATION] Perform annual accountability reporting as set out in the policy review to evaluate the relevance and quality of the services offered.

Implement annual follow-up tools that validate the required documents (annual table). (Planned completion: January 2017)

VILLE-MARIE BOROUGH

[TRANSLATION] Sports and recreation programs were all updated in 2015 and accountability reporting has been improved. Objectives have been set for each organization. In addition, the borough has set an objective of increasing citizen participation in borough activities and revamping the service offer. These two objectives will be followed up on and measured at the end of the agreements in 2017.

Align the evaluation of results of the Programme de soutien aux initiatives culturelles and the future Fonds de soutien aux organismes culturels with the priority objectives defined by the borough.

For the other programs, as is already the case in the Programme Éco-quartier, the nature of the accountability elements and the deadlines will be included in the call for candidates and will form an integral part of the agreement protocol with the organization involved. (Planned completion: December 2017)

4.4.C. Recommendation

We recommend that the Côte-des-Neiges–Notre-Dame-de-Grâce, Lachine, Verdun and Ville-Marie boroughs regularly review their priorities concerning targeted clients or types of activities supported, so that they achieve set objectives.

Business units' responses:**CÔTE-DES-NEIGES–NOTRE-DAME-DE-GRÂCE BOROUGH**

[TRANSLATION] Adjust the action plans annually based on the evaluation, the agreements at the time of renewal, the call for proposals as needed, and the programs every five years. (Planned completion: December 2017)

LACHINE BOROUGH

[TRANSLATION] To ensure that the organization support policy meets the needs and priorities of the borough, a review of the policy and its various programs will be conducted at least every five years. (Planned completion: December 2017)

VERDUN BOROUGH

[TRANSLATION] Review the support policy every three years to ensure that it still meets the needs and priorities of the borough and that it is well aligned with the new trends in culture, sports, recreation and social development.

Adjust action plans annually with regard to the partnership agreements and adjust the agreements at the time of renewal. (Planned completion: December 2017)

VILLE-MARIE BOROUGH

[TRANSLATION] The recognition and support policy and the programs are reviewed every six years so as to meet the needs and priorities of the borough. (Planned completion: December 2017)

5. Conclusion

Generally, our audit did not reveal that the process of allocating financial contributions was objective and transparent.

To begin with, three of the four audited boroughs do not have an official process for recognizing organizations, based on eligibility criteria. In one of the boroughs, there has even been a moratorium on the recognition of new organizations since 2010. When eligibility criteria are established, evidence of compliance with them is not always recorded in the file. Such a situation is likely to favour bodies even when boroughs have not shown objectivity and transparency. Moreover, the boroughs' current practices do not allow all eligible organizations to submit requests for financial assistance, because there are few calls for proposals under support programs. Such practices do not allow boroughs to receive a range of proposals and select the best ones, i.e., those that contribute the most to achieving their priorities.

While two of the boroughs audited had financial assistance policies that provided for either allocation standards or a method of distributing budget funds among organizations, the criteria and evidence used to establish contribution amounts are not always justified and documented. Such a situation does not always show fairness in the support provided to organizations.

Boroughs do not engage in open market solicitation very often, and consequently, for 78% of the total financial contribution budget, contributions are granted on a mutual agreement basis. Furthermore, a large share of their contributions is renewed from one year to the next. For the four boroughs audited, the average percentage of bodies receiving support for each of the five years (2010–2014) is 81% for the Côte-des-Neiges–Notre-Dame-de-Grâce (CDN–NDG) borough, 88% for the Lachine borough, 95% for the Verdun borough and 78% for the Ville-Marie borough. In addition, our audit revealed that for some bodies, funding dates back to at least 1996. This situation contributes to the development of close relations, which could influence decisions made with regard to the financial assistance to be granted to these bodies. The other contributions are granted following requests for support received from bodies throughout the year. In both cases, the outcome is the same: contributions are granted without any real objective analysis of their appropriateness or the amount requested. What's more, when budgets are insufficient, a portion of these contributions are even funded through available surpluses. Our audit also showed that with the processes in place, it is not possible to assess the extent to which the financial contributions made to organizations actually contribute to the achievement of set objectives related to the City's or boroughs' priorities.

Since boroughs manage public funds, we believe that action must be taken to establish rules ensuring that the process is objective and transparent. We further believe that authorities must decide on priorities for financial assistance so that measurable objectives can be established. Subsequently, only organizations that help achieve these objectives should receive support.

6. Appendices

6.1. Comparison of Original Contributions Budget with Actual Spending

Table A – Côte-des-Neiges–Notre-Dame-de-Grâce Borough

Activity	2010		2011		2012		2013		2014	
	Original budget	Actual spending								
General administration	\$60,000	\$115,125	\$65,000	\$172,432	\$65,000	\$196,457	\$70,000	\$91,450	\$65,000	\$97,211
Land use planning, urban planning and development	\$–	\$–	\$–	\$–	\$–	\$5,000	\$–	\$–	\$5,000	\$37,624
Environmental health	\$377,000	\$325,000	\$377,000	\$325,000	\$377,000	\$325,000	\$325,000	\$325,000	\$325,000	\$325,000
Recreation and culture	\$2,778,500	\$2,934,816	\$2,883,500	\$2,916,476	\$2,863,700	\$2,868,701	\$2,954,200	\$3,082,767	\$2,893,400	\$3,172,284
Health and welfare	\$281,200	\$281,200	\$252,600	\$251,200	\$252,600	\$268,200	\$252,600	\$286,500	\$212,600	\$246,200
Public safety	\$242,800	\$242,800	\$242,800	\$242,800	\$242,800	\$250,300	\$252,300	\$250,300	\$252,300	\$250,300
Transportation	\$–	\$215,000	\$–	\$252,000	\$–	\$239,000	\$117,000	\$204,533	\$117,000	\$167,000
TOTAL	\$3,739,500	\$4,113,941	\$3,820,900	\$4,159,908	\$3,801,100	\$4,152,658	\$3,971,100	\$4,240,550	\$3,870,300	\$4,295,619
Variation (%)	+ 10%		+ 9%		+ 9%		+ 7%		+ 11%	

Table B – Lachine Borough

Activity	2010		2011		2012		2013		2014	
	Original budget	Actual spending	Original budget	Actual spending	Original budget	Actual spending	Original budget	Actual spending	Original budget	Actual spending
Land use planning, urban planning and development	\$20,000	\$20,000	\$20,000	\$–	\$20,000	\$80,000	\$20,000	\$89,750	\$30,000	\$33,005
Environmental health	\$–	\$42,000	\$–	\$75,000	\$75,000	\$71,250	\$75,000	\$71,250	\$75,000	\$71,250
Recreation and culture	\$834,300	\$775,404	\$836,800	\$534,252	\$776,800	\$748,162	\$776,800	\$718,682	\$701,800	\$666,141
Health and welfare	\$192,900	\$200,621	\$193,700	\$230,680	\$183,700	\$177,512	\$183,700	\$177,535	\$213,700	\$241,866
TOTAL	\$1,047,200	\$1,038,025	\$1,050,500	\$839,932	\$1,055,500	\$1,076,924	\$1,055,500	\$1,057,217	\$1,020,500	\$1,012,262
Variation (%)	-1%		-20%		+2%		+1%		-1%	

Table C – Verdun Borough

Activity	2010		2011		2012		2013		2014	
	Original budget	Actual spending	Original budget	Actual spending	Original budget	Actual spending	Original budget	Actual spending	Original budget	Actual spending
General administration	\$-	\$-	\$-	\$28,915	\$-	\$10,000	\$-	\$13,125	\$-	\$10,000
Land use planning, urban planning and development	\$248,500	\$237,988	\$242,000	\$563,222	\$290,500	\$394,391	\$290,500	\$314,618	\$125,000	\$134,314
Environmental health	\$178,000	\$182,188	\$186,700	\$186,037	\$191,300	\$212,472	\$194,300	\$182,076	\$197,100	\$112,103
Recreation and culture	\$325,200	\$312,751	\$391,200	\$431,740	\$393,300	\$431,421	\$375,700	\$425,576	\$375,700	\$560,385
Health and welfare	\$-	\$-	\$-	\$24,000	\$-	\$-	\$-	\$15,503	\$-	\$48,368
Public safety	\$36,600	\$33,000	\$49,800	\$44,800	\$50,300	\$44,800	\$55,800	\$44,800	\$60,800	\$62,300
TOTAL	\$788,300	\$765,927	\$869,700	\$1,278,714	\$925,400	\$1,093,084	\$916,300	\$995,698	\$758,600	\$927,470
Variation (%)	-3%		+47%		+18%		+9%		+22%	

Table D – Ville-Marie Borough

Activity	2010		2011		2012		2013		2014	
	Original budget	Actual spending								
General administration	\$120,000	\$202,234	\$180,000	\$197,261	\$180,000	\$175,740	\$180,000	\$186,436	\$180,000	\$194,369
Land use planning, urban planning and development	\$265,000	\$748,314	\$265,000	\$814,384	\$405,000	\$1,286,665	\$618,600	\$1,736,792	\$626,000	\$908,215
Environmental health	\$465,000	\$612,920	\$465,000	\$692,194	\$465,000	\$605,870	\$465,000	\$636,200	\$465,000	\$586,212
Recreation and culture	\$1,870,900	\$1,944,550	\$2,110,900	\$2,286,543	\$2,140,900	\$2,345,038	\$2,363,200	\$2,568,493	\$2,362,200	\$2,570,007
Health and welfare	\$269,900	\$408,588	\$269,900	\$453,158	\$269,900	\$630,079	\$269,900	\$542,286	\$234,200	\$546,586
Public safety	\$201,300	\$209,237	\$201,300	\$201,300	\$201,300	\$210,915	\$215,200	\$215,134	\$215,200	\$194,436
Transportation	\$154,900	\$760,100	\$154,900	\$765,910	\$154,900	\$898,600	\$224,900	\$540,223	\$224,900	\$587,734
TOTAL	\$3,347,000	\$4,885,943	\$3,647,000	\$5,410,750	\$3,817,000	\$6,152,907	\$4,336,800	\$6,425,564	\$4,307,500	\$5,587,559
Variation (%)	+ 46%		+ 49%		+ 61%		+ 48%		+ 30%	

6.2. Boroughs' Use of Surpluses to Provide Financial Assistance to Organizations

Table A – Côte-des-Neiges–Notre-Dame-de-Grâce Borough

Activity	2010	2011	2012	2013	2014	TOTAL
General administration	\$6,200	\$52,900	\$85,017	\$ –	\$3,521	\$147,638
Land use planning, urban planning and development	\$ –	\$ –	\$ –	\$ –	\$32,624	\$32,624
Recreation and Culture	\$62,100	\$ –	\$ –	\$ –	\$142,500	\$204,600
TOTAL	\$68,300	\$52,900	\$85,017	\$ –	\$178,645	\$384,862

Table B – Lachine Borough

Activity	2010	2011	2012	2013	2014	TOTAL
Land use planning, urban planning and development	\$ –	\$ –	\$60,000	\$65,000	\$ –	\$125,000
Environmental Health	\$42,000	\$ –	\$ –	\$ –	\$ –	\$42,000
TOTAL	\$42,000	\$ –	\$60,000	\$65,000	\$ –	\$167,000

Table C – Verdun Borough

Activity	2010	2011	2012	2013	2014	TOTAL
General administration	\$ –	\$26,915	\$10,000	\$10,000	\$10,000	\$56,915
Land use planning, urban planning and development	\$8,000	\$208,000	\$8,000	\$28,500	\$ –	\$252,500
Recreation and Culture	\$20,000	\$ –	\$ –	\$ –	\$125,000	\$145,000
TOTAL	\$28,000	\$234,915	\$18,000	\$38,500	\$135,000	\$454,415

Table D – Ville-Marie Borough

Activity	2010	2011	2012	2013	2014	TOTAL
Land use planning, urban planning and development	\$327,500	\$120,000	\$768,663	\$1,043,542	\$395,540	\$2,655,245
Environmental health	\$126,000	\$219,694	\$135,870	\$161,200	\$121,212	\$763,976
Recreation and Culture	\$31,781	\$401,608	\$417,852	\$152,643	\$382,637	\$1,386,521
Health and Welfare	\$ –	\$235,000	\$424,779	\$406,036	\$429,593	\$1,495,408
Public Safety	\$ –	\$ –	\$9,615	\$ –	\$ –	\$9,615
Transportation	\$ –	\$50,000	\$ –	\$ –	\$125,000	\$175,000
TOTAL	\$485,281	\$1,026,302	\$1,756,779	\$1,763,421	\$1,453,982	\$6,485,765



**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, 2015

4.3

**Authorization
of the Autorité des
marchés financiers**



Table of Contents

1. Background.....	141
2. Purpose and Scope of the Audit.....	143
3. Main Findings.....	144
4. Audit Results.....	144
4.1. Application of Orders in Council and Control Mechanisms.....	145
4.2. Information Conveyed Prior to the Awarding of a Contract	164
5. Conclusion	169
6. Appendices	171
6.1. Analysis of a Sample of Construction Contracts on a Borough-by- Borough Basis – O.C. 1049-2013 (January 1, 2014, to August 31, 2015).....	171
6.2. Analysis of a Sample of Service Contracts on a Borough-by-Borough Basis – O.C. 795-2014 (October 1, 2014, to August 31, 2015)	173
6.3. Diagram Illustrating How Orders in Council Are Applied	174

List of Acronyms

AMF	Autorité des marchés financiers	O.C.	order in council
BC	borough council	RENA	Registre des entreprises non admissibles
CC	City council	SÉAO	Système électronique d'appel d'offres
EC	executive committee	UAC	urban agglomeration council
GDD	gestion des dossiers décisionnels		

4.3. Authorization of the Autorité des marchés financiers

1. Background

A number of incidents related to the awarding of public contracts in Québec have made the headlines in recent years. The municipal world has also been shaken by these events, which have brought to light various problems linked to fraud, corruption and collusion in municipal contracts. Consequently, several laws and amendments have been adopted since 2010 to change the way contracts are managed and awarded by municipal authorities.

More specifically, in 2011, in an effort to curb corruption at the municipal level, several important pieces of provincial legislation were enacted, including the *Anti-Corruption Act*,¹ which modified the *Act Respecting Contracting by Public Bodies*² and created the Registre des entreprises non admissibles (RENA).³ A regulation related to the application of this register was also adopted.⁴ Accordingly, an enterprise accused of violations under this regulation would be entered in the RENA and thus barred from any future dealings with a public body. The *Cities and Towns Act*⁵ was also amended in 2011 to specify that municipalities were to be considered public bodies from that point onward.

In 2012, in an attempt to bolster the integrity of the public tendering process, further legislation was passed on the awarding of municipal contracts, namely the *Integrity in Public Contracts Act*,⁶ which amended the *Act Respecting Contracting by Public Bodies*,⁷ thereby requiring enterprises that wish to enter into public contracts with a municipality to possess the authorization to do so from the Autorité des marchés financiers (AMF). As a result of these legislative modifications, a new system has emerged, i.e., a register of authorized enterprises. The *Cities and Towns Act*⁸ has also been amended so that these new rules apply to municipal administrations.

Since these changes, enterprises that wish to enter into a contract with a public body or a municipality must show that they meet the stipulated requirements and integrity conditions

¹ SQ, 2011, Chapter 17.

² CQRL, Chapter C-65.1.

³ The RENA came into effect June 1, 2012, with the adoption of the *Regulation respecting the register of enterprises ineligible for public contracts and oversight and monitoring measures*, *Gazette officielle du Québec* (GO), Part 2, Vol. 144, No. 20, May 16, 2012, pp. 2381–2401.

⁴ *Regulation respecting the register of enterprises ineligible for public contracts and oversight and monitoring measures* (GO) Part 2, Vol. 144, No. 20, May 16, 2012, pp. 2381–2401.

⁵ CQRL, Chapter C-19, Section 573.3.3.2.

⁶ SQ, 2012, Chapter 25.

⁷ CQRL, Chapter C-65.1.

⁸ CQRL, Chapter C-19, Section 573.3.3.3.

and must obtain authorization from the AMF. Because the RENA is still in force, the result is an overlapping system, with one register of enterprises deemed ineligible and another of enterprises authorized to enter into contracts with public bodies and municipalities.⁹ It should be noted that these rules also apply to subcontracts directly or indirectly related to contracts of this nature.¹⁰

Effective January 15, 2013, the first contracts and subcontracts subject to this authorization were construction contracts and subcontracts and service contracts and subcontracts involving an expenditure of \$40 million or more.¹¹ In addition, the law specified that the government could adopt an order in council (O.C.) applicable to contracts and subcontracts that fell under categories other than the ones indicated or that were valued at another amount.

Several orders in council have since been passed for specific contracts undertaken by the Ville de Montréal (the City). In 2013, the government adopted an O.C. regarding service contracts and subcontracts and construction contracts and subcontracts involving an expenditure of \$10 million or more.¹² In 2014, the government enacted an O.C. targeting the same type of contracts and subcontracts, but valued at \$5 million or more.¹³

Moreover, at the City's request,¹⁴ the government adopted two orders in council solely for City contracts, namely O.C. 1049-2013,¹⁵ which came into effect on October 23, 2013, and O.C. 795-2014,¹⁶ enacted September 24, 2014. Our audit focused on both.

The first O.C. 1049-2013 applies to contracts related to the construction, reconstruction, demolition, repair or renovation of roads, waterworks and sewer services involving an

⁹ Register of authorized businesses: The first contracts and subcontracts to be subject to this authorization were construction contracts and subcontracts and service contracts and subcontracts involving an expenditure of \$40 million or more. This came into effect on January 15, 2013. Since then, as soon as an O.C. for a given contract category is adopted and declared in force, authorization is required for the corresponding contracts.

¹⁰ *Integrity in Public Contracts Act*, SQ, 2012, Chapter 25, Section 10.

¹¹ *Integrity in Public Contracts Act*, SQ, 2012, Chapter 25, Section 85.

¹² O.C. 1105-2013 – *Service contracts and subcontracts and construction contracts and subcontracts involving an expenditure equal to or greater than \$10,000,000*, GO, Part 2, Vol. 145, No. 45, November 6, 2013, pp. 4888–4889.

¹³ O.C. 796-2014 – *Service contracts and subcontracts and construction contracts and subcontracts involving an expenditure equal to or greater than \$5,000,000*, GO, Part 2, Vol. 146, No. 39, September 24, 2014, pp. 3405–3406.

¹⁴ Resolution CM14 0521, adopted at a regular CC meeting May 26, 2014, and Resolution CE13 1585.

¹⁵ O.C. 1049-2013 – *Application of Chapter V.2 of the Act Respecting Contracting by Public Bodies to contracts for the construction, reconstruction, demolition, repair or renovation of roads, waterworks and sewer services of Ville de Montréal involving an expenditure equal to or greater than \$100,000 and to subcontracts of the same nature directly or indirectly related to such contracts and involving an expenditure equal to or greater than \$25,000*, GO, Part 2, Vol. 145, No. 44, October 30, 2013, pp. 4813–4814.

¹⁶ O.C. 795-2014 – *Certain supply contracts and service contracts of Ville de Montréal involving an expenditure equal to or greater than \$100,000 and various subcontracts involving an expenditure equal to or greater than \$25,000*, GO, Part 2, Vol. 146, No. 39, September 24, 2014, pp. 3404–3405.

expenditure of \$100,000 or more. This O.C. also applies to subcontracts directly or indirectly related to such contracts and involving an expenditure equal to or greater than \$25,000.

As for the second O.C. 795-2014, it applies to service contracts involving the same purposes and materials as O.C. 1049-2013, for expenditures of \$100,000 or more. Similar to O.C. 1049-2013, it also extends to subcontracts for services involving the same purposes and materials, for expenditures valued at \$25,000 or more. In addition, this O.C. covers contracts and subcontracts for the supply of bituminous compounds involving an expenditure equal to or greater than \$100,000.

In this context, the City's business units must, within the framework of the contract-awarding process, implement control mechanisms that allow them to evaluate whether the contractors and subcontractors that execute work or provide services under a contract with the City comply with the provisions of these orders in council.

2. Purpose and Scope of the Audit

The purpose of this audit was to ensure that the audited business units had put control mechanisms in place within the framework of their contract-awarding processes to ensure compliance with O.C. 1049-2013 and O.C. 795-2014 in terms of AMF authorization for enterprises that wish to enter into a contract with the City.

Our audit was carried out in each of the City's 19 boroughs and focused on a sample of 191 construction and service contracts subject to O.C. 1049-2013 and O.C. 795-2014 awarded between January 1, 2014, and August 31, 2015, for the former, and between October 1, 2014, and August 31, 2015, for the latter.

More specifically, with respect to the review of compliance with O.C. 1049-2013, pursuant to the rules stipulated therein, our audit examined contracts related to the construction, reconstruction, demolition, repair or renovation of roads, sewer services and waterworks involving an expenditure equal to or greater than \$100,000. For O.C. 795-2014, we focused on service contracts valued at \$100,000 or more pertaining to the construction, reconstruction, renovation, demolition or repair of roads, sewer services and waterworks.

During the course of the audit, we interviewed managers and staff members, examined various documents and conducted surveys that we deemed relevant in obtaining useful information.

3. Main Findings

Our audit revealed areas where improvements should be made, including the following:

- For some contracts in two boroughs, there are still discrepancies between the information contained in the tendering documents and those in the decision-making summaries concerning the application of orders in council;
- In some boroughs (five), confusion in the interpretation of the orders in council for certain types of contracts has resulted in situations where contracts were awarded even though it was uncertain whether or not they were subject to the provisions of the orders in council;
- The content of the tendering documents is not consistent from one borough to the next when it comes to clauses concerning the application of the orders in council and the information required to ensure subcontractor compliance;
- Almost all of the boroughs (16) have yet to adopt a mechanism to ensure that bidders possess valid AMF authorization to enter into municipal contracts, if applicable, when submitting their tenders;
- None of the boroughs systematically obtains a list of subcontractors comprising all of the information required under the law and in the clauses in the tendering documents;
- None of the boroughs systematically uses the mechanisms designed to remind successful bidders of their contractual obligations and ensure subsequent follow-up regarding the compliance of the subcontractors selected to execute subcontracts;
- In almost all of the boroughs (17), decision-making summaries submitted to managers and elected officials within the borough do not always contain relevant information about the applicability of the orders in council as part of the decision-making process.

4. Audit Results

Order in council (O.C.) 1049-2013 and O.C. 795-2014 apply solely to contracts entered into with the City. Both orders in council have been passed by the government and thus have had the force of law since they came into effect with regard to the contracts within their purview.

As a result, when a decision is made that work or services are necessary to carry out a given project and that tendering documents must be prepared in order to issue a call for tenders, the business units involved must ensure the compliance of the process as it pertains to these orders in council. Adherence to these orders in council requires the introduction of mechanisms that facilitate their interpretation and application, especially through the inclusion of clauses in tendering documents, compliance evaluation tools and mechanisms designed to remind bidders of their legislative requirements under these orders in council.

O.C. 1049-2013 and O.C. 795-2014, which constitute the subject of this report, apply to subcontractors as well. The risks associated with a subcontractor's non-compliance with these orders in council are not inconsequential for the City. For example, if a subcontractor were to be removed from a construction site for non-compliance with one of these orders in council, it could potentially delay the project timeline. Although there are no contractual ties per se between the City and the subcontractors retained by the successful bidder, it is important for control mechanisms to be put into place to ensure the contractor is doing business with subcontractors that are duly authorized by the Autorité des marchés financiers (AMF) where required.

Various authorities, namely the borough council (BC), executive committee (EC), City council (CC) and the urban agglomeration council (UAC), are involved in awarding City contracts, based on their respective jurisdictions. Decisions of this nature are made by resolution.

A significant percentage of the documents associated with the contracts in our sample were prepared primarily by borough staff and issued by their BC, as the work involved was to be carried out in the borough itself and thus fell under its jurisdiction. However, although many of the selected files are in fact the responsibility of other authorities (EC, CC and UAC), the documents and decision-making summaries for the contracts were prepared primarily by borough staff and received prior approval from their BC before being submitted to the central authority for the final decision by way of a resolution, based on the jurisdiction allocated to it for a given type of category or expenditure. Both managers and elected officials from these various authorities must be aware of the compliance status of contractors selected for a contract because they are ultimately responsible for any decisions made in this regard. Consequently, whether or not orders in council are in fact applicable, given the nature of the work and the amount of money involved, we believe that there should be mechanisms in place to provide the authorities with proof that the necessary checks have been made as to whether AMF authorization is required under current orders in council.

4.1. Application of Orders in Council and Control Mechanisms

4.1.1. Preparation of Tendering Documents

4.1.1.A. Background and Findings

When documents need to be prepared for a call for tenders for a construction or service contract, one of the first steps in the process is to identify any applicable laws, regulations, by-laws and orders in council. It is therefore important for the staff in charge of preparing the

tendering documents to have comprehensive information at their disposal about the nature, scope and amount of the contract to be awarded, as well as other relevant details.

4.1.1.1. Application of Orders in Council

4.1.1.1.A. Background and Findings

At this stage, the requirement concerning AMF authorization in relation to the application of O.C. 1049-2013 and O.C. 795-2014 deserves particular attention, since each business unit must begin by determining if this authorization is necessary.

This first step is critical and entails a significant level of risk, given the impact it will have on the contents of the tendering documents. This is the point at which a decision has to be made as to whether the tendering documents need to include clauses requiring contractors to be authorized by the AMF to enter into public contracts. Among the risks of incorporating such clauses into the tendering documents when they are not required, considering the nature and amount of the contract to be awarded, is that they may discourage some contractors from bidding or that they may cause otherwise qualified bidders to be declared non-compliant. Conversely, excluding these clauses when they are actually necessary, pursuant to the applicable O.C., may lead to an increased risk of awarding the contract to a bidder that does not adhere to the law.

The City is responsible for providing bidders with clear, accurate information during the tendering process so that they are in a position to understand what is required of them.

Our audit shows that, for a significant proportion of the 191 contracts we examined, which for the most part involved road rehabilitation, the reconstruction of streets, sidewalks, sewer mains or water mains, or pavement repairs, interpreting and applying orders in council is not particularly problematic.

However, our work highlighted the fact that there are some interpretation and application irregularities associated with a certain category of contract. While examining the contracts in our sample with regard to the two orders in council that were the focus of our audit, and analyzing all of the tendering documents, the information posted on the Système électronique d'appel d'offres (SÉAO) and the information obtained from the people we met or contacted within the various business units, we encountered a number of situations regarding the interpretation and application of the orders in council that we felt were a cause for concern.

In particular, our audit revealed the following about certain types of contracts included in our sample:

- For a road marking contract involving an expenditure of over \$100,000 awarded in Lachine in 2015, our audit showed that there was significant confusion in the application of the orders in council.

To elaborate, a clause had been incorporated in the tendering documents specifying that O.C. 1049-2013 would be applicable to the contract awarded following the call for tenders. The tendering documents also included a clause concerning O.C. 795-2014. However, the information in the decision-making summary provided to managers and elected officials indicated that the contract was not subject to the *Integrity in Public Contracts Act*. Furthermore, the public notice posted to SÉAO identified this as a construction contract, whereas the bid specifications indicated that it was a contract to provide goods and services. We did not find any copies of the winning bidders' authorization from the AMF to enter into public contracts. According to the information obtained from the people we met with, AMF authorization had not been required of bidders. These same individuals mentioned that they were unsure about how to apply the orders in council to this type of contract, although they also acknowledged that no legal opinion had been obtained to clarify the interpretation and application of the orders in council to determine whether or not AMF authorization was required.

In addition, a contract involving an expenditure in excess of \$100,000 for the layout and marking of lines on the road was awarded in the LaSalle borough in 2015. An examination of the tendering documents, decision-making summaries and SÉAO notices showed similarities with those in the previous example. More specifically, we noted that the tendering documents were prepared by the Service de l'approvisionnement, whereas the decision-making summary was prepared by the borough staff. We also observed that the decision-making summary contained information from the Service de l'approvisionnement indicating that the call for tenders related to this contract was not subject to the *Integrity in Public Contracts Act* and that AMF authorization was not mandatory. Based on the information obtained from the manager we contacted at the Service de l'approvisionnement, no legal opinion had been obtained to determine whether AMF authorization was indeed required for this contract category.

Our audit revealed that similar contracts for road marking and signage were also awarded in other boroughs, namely Anjou, Saint-Léonard and Verdun. An examination of the decision-making summaries associated with the contracts granted in Anjou and Verdun showed that they contained no information for analyzing the applicability of the orders in

council. As for the decision-making summary for the contract awarded in Saint-Léonard, it incorporated information from the Service de l'approvisionnement indicating that the call for tenders for the contract was not subject to the AMF authorization requirement. The public notice in SÉAO identified these contracts as construction contracts.

Clearly there is some confusion as to how the orders in council are to be applied to this type of contract. As a result, there is an increased risk of non-compliance with the law and the orders in council.

- A contract involving an expenditure of more than \$100,000 to replace street lamps and refurbish the underground street lighting system was awarded in Saint-Laurent. Our work showed, however, that clauses related to O.C. 1049-2013 were not included in the tendering documents. The information in the decision-making summary did not indicate whether the orders in council were applied or whether the AMF authorization was required or not.

Our audit also showed that a similar contract was allocated in Verdun for the installation of street lamps along the borough's bicycle paths. The information in the decision-making summary indicated that the contract was in fact subject to the *Integrity in Public Contracts Act* and that the selected bidder was required to hold AMF authorization to enter into public contracts. Moreover, according to the documents we examined in Verdun, AMF authorization was sought and obtained for a subcontractor for an electrical subcontract on traffic lights valued at over \$25,000.

In addition, a contract to repair and refurbish light poles was awarded in Rosemont–La Petite-Patrie. In this case, the tendering documents included clauses related to O.C. 795-2014 indicating that Chapter V.2 of the *Act Respecting Contracting by Public Bodies* and AMF authorization would apply to contracts arising from the call for tenders. For this contract, the Service de l'approvisionnement prepared the tendering documents and issued the call for tenders on behalf of the borough, although the contract-awarding process remained the responsibility of the BC. However, we found no copies of the AMF authorization and no indication in the records that gave us reason to believe that this authorization had been required or obtained. According to the information provided by the individual we contacted in the Service de l'approvisionnement, AMF authorization was not sought.

We are left to wonder why, for contracts and subcontracts of a similar nature, AMF authorization is required in some cases but not in others, not to mention the fact that

some tendering documents contain clauses from O.C. 795-2014 indicating that a contract is subject to an O.C. without also requiring AMF authorization.

- Two contracts awarded in Verdun involving an expenditure of over \$100,000 for professional services related to material monitoring and supervision of various work sites and streets were included in our sample. The people we interviewed admitted that no queries had been made to determine whether or not these contracts were subject to O.C. 795-2014.
- Two contracts involving an expenditure of more than \$100,000 for professional services associated specifically with the supervision of civil engineering infrastructure work and the study and design of civil engineering structures were awarded within the Villeray–Saint-Michel–Parc-Extension borough, one contract to prepare plans and specifications for the redevelopment of a street was awarded in the Le Plateau-Mont-Royal borough, and one contract for the preparation of plans and specifications to supervise the rehabilitation of water and sewer facilities, roads and sidewalks was awarded in the Saint-Laurent borough. We were not able to track down proof in the tendering documents or decision-making summaries for any of these contracts of any investigation into whether these contracts were subject to O.C. 795-2014.
- One contract involving an expenditure in excess of \$100,000 for professional services concerning the design and supervision of various civil engineering jobs was awarded in the LaSalle borough. The tendering documents contained clauses in relation to O.C. 795-2014 that indicated that the contract was subject to this O.C.. However, information in the decision-making summary contradicts this by stating that the contract did not come under the purview of the law or an O.C..

We feel it is important to examine contracts for professional services as well as other types of services to determine whether O.C. 795-2014 is applicable. Similarly, we believe it is essential for the information in tendering documents to be consistent with the information in the decision-making summaries prepared to help designated managers and the elected officials make informed decisions.

In summary, our audit brought to light some difficulties in the interpretation and application of the orders in council for certain contract categories. In our opinion, this prevailing confusion inevitably leads to an increased risk of contract-awarding practices not adhering to the law. In order to mitigate this risk, we feel it would be helpful for the boroughs to have access to a guide for the interpretation and application of these orders in council. To the best of our knowledge, such a guide does not already exist. In our opinion, the guide could also be used

to identify the subcontract categories for which AMF authorization is required. In this case, we believe that a legal opinion should have been sought prior to awarding several contracts for road marking and electrical work (e.g., street lamp installation and repair) to help the boroughs decide whether or not the orders in council and the AMF authorization requirement were applicable. In this regard, we feel that the Service des affaires juridiques could be approached to prepare a guide to interpreting these orders in council for distribution to all of the City's business units.

4.1.1.1.B. Recommendation

We recommend that the Lachine and LaSalle boroughs implement the necessary control mechanisms to maintain consistency in the information provided in tendering documents and decision-making summaries as regards the application of orders in council in order to ensure the compliance of the contract-awarding process.

4.1.1.1.C. Recommendation

We recommend that the Anjou, Lachine, LaSalle, Le Plateau-Mont-Royal, Rosemont–La Petite-Patrie, Saint-Laurent, Saint-Léonard, Verdun and Villeray–Saint-Michel–Parc-Extension boroughs implement the appropriate control mechanisms to exercise careful oversight and ensure the contract-awarding process takes the orders in council into consideration, where applicable.

4.1.1.1.D. Recommendation

We recommend that the Direction générale make the necessary arrangements to produce a guide and distribute it to all of the City's business units to help them interpret and apply the orders in council in order to support staff members involved in the preparation of tendering documents and decision-making summaries.

Business unit's response:

[TRANSLATION] The Direction générale will instead ask the Service de l'approvisionnement to reacquaint the appropriate administrative units with the available documents regarding the application of orders in council and decision-making summaries. (Planned completion: June 2016)

4.1.1.2. Tendering Document Clauses

4.1.1.2.A. Background and Findings

As previously mentioned, orders in council apply to contracts involving an expenditure equal to or greater than \$100,000. In this case, the law requires a tendering mechanism to be used

and the requisite documents to be prepared in order to issue a call for tenders. These documents include instructions to bidders, a bid form, plans and specifications, and special and general conditions.

Once the terms of the contract have been examined and it has been determined whether or not the orders in council are applicable, the exact content of the tendering documents must be established, taking into account the orders in council and the AMF authorization requirement, as appropriate.

These tendering documents essentially form the basis of the eventual contract and contain various clauses that the winning bidder will adhere to in the performance of the work or services requested by the City. Some of these clauses may refer to laws, regulations, by-laws or orders in council, although they may also specify the information and documents that the contractor is required to provide to the client concerning the subcontractors it intends to do business with.

The January 2013 edition of *Muni-Express*,¹⁷ a newsletter published by the Ministère des Affaires municipales et de l'Occupation du territoire (MAMOT), addresses the role of municipalities with regard to the AMF authorization requirement. The newsletter specifically points out that municipalities should indicate in their tendering documents whether a given contract is subject to AMF authorization (pursuant to the law or orders in council) and incorporate certain clauses in these documents. The same newsletter contains a reference to sample clauses recommended by the MAMOT.

Furthermore, various documents touching on legal issues are available to the City's business units through a computer application known as gestion des dossiers décisionnels (GDD) (the decision-making record management system), administered by the Service des affaires juridiques. This includes a document dated October 28, 2014, containing sample clauses that may be included in tendering documents concerning AMF authorization, as set forth in O.C. 1049-2013 and O.C. 795-2014.

That being said, for 113¹⁸ of the 191 contracts in our sample (see Appendices 6.1 and 6.2), our work at this stage entailed examining the tendering documents in order to make sure that they contained clauses pertaining to these orders in council and the AMF authorization requirement, as applicable. At the same time, we reviewed the tendering documents to check

¹⁷ *Muni-Express*, No. 2, January 29, 2013, Ministère des Affaires municipales et de l'Occupation du territoire (MAMOT).

¹⁸ 96 construction contracts (O.C. 1049-2013) and 17 service contracts (O.C. 795-2014).

that they included clauses compelling the contractor to deal with AMF-authorized subcontractors, when this condition was required pursuant to the orders in council.

In our sample of construction contracts, as regards the requirement for bidders to hold AMF authorization, our audit revealed that the tendering documents for almost all (98%) of the selected contracts within the boroughs contained clauses related to these orders in council (see Appendix 6.1). We also observed that these clauses were based on the sample clauses recommended by the City's Service des affaires juridiques, available through the GDD application.

Our audit nevertheless showed that, in the tendering documents used in calls for tenders issued after September 24, 2014,¹⁹ several boroughs did not use the most recent and up-to-date wording, as provided by the Service des affaires juridiques. This situation occurred in the following boroughs: Ahuntsic-Cartierville, Anjou, Lachine, LaSalle, Mercier–Hochelaga-Maisonneuve, Outremont, Pierrefonds-Roxboro, Le Plateau-Mont-Royal, Rosemont–La Petite-Patrie, Saint-Laurent, Le Sud-Ouest, Verdun, Ville-Marie and Villeray–Saint-Michel–Parc-Extension.

The most recent sample clauses contain certain reworded phrases to be used for construction contracts (1049-2013). Now, service subcontracts valued at \$25,000 or more that are associated directly or indirectly with a construction contract awarded by way of a call for tenders are subject to the AMF authorization requirement, pursuant to O.C. 795-2014. The same applies to subcontracts for the supply of bituminous compounds. The sample clauses updated by the City's Service des affaires juridiques take into account several factors that arise when new orders in council come into effect and help lessen the risk of legal non-compliance. As a result, we feel it would be in the boroughs' best interest to ensure, prior to issuing a call for tenders, that the clauses incorporated in their tendering documents are up to date.

In addition, with respect to our sample of service contracts, which we examined in connection with O.C. 795-2014, our audit revealed that a little over half (59%) of the tendering documents for the selected contracts contained a clause about the O.C. (see Appendix 6.2). We confirmed that these clauses correspond to the up-to-date samples available through the City's Service des affaires juridiques.

¹⁹ The date O.C. 795-2014 came into force, thereby subjecting service subcontracts and subcontracts for the supply of bituminous compounds to the requirement to obtain authorization from the AMF when they are directly or indirectly related to a construction contract (O.C. 1049-2013).

However, the tendering documents for five contracts involving the boroughs of Saint-Laurent (one), Verdun (two) and Villeray–Saint-Michel–Parc-Extension (two) did not contain any specific clause concerning the O.C.. Neither were we able to find any proof in the documents we reviewed that the application of this O.C. had been checked.

Lastly, regarding the existence of clauses in tendering documents in which the contractor is compelled to do business with AMF-authorized subcontractors when required by law, our audit led us to conclude the following:

- **Construction contracts (O.C. 1049-2013)**

Our examination highlighted that practically all of the tendering documents used in all of the boroughs included clauses about subcontractors in relation to these contracts. By and large, however, these clauses did little more than indicate that subcontractors for subcontracts subject to the orders in council must hold AMF authorization to enter into public contracts.

Six boroughs²⁰ nevertheless incorporated slightly more detailed clauses in their tendering documents to require the winning bidder to provide information on the subcontractors to which subcontracts would be granted (e.g., name and address, amount and date of the subcontract). These clauses state that:

- The winning bidder must submit this information before work commences or before the subcontract comes into effect;
- A copy of the AMF authorization must be forwarded to the borough for subcontracts involving an expenditure equal to or greater than \$25,000;
- The winning bidder is considered to be in default of its obligations if it enters into a subcontract subject to the O.C. with a subcontractor that does not hold the required AMF authorization or it fails to provide the client with the necessary information;
- The City will pay nothing to the contractor for work carried out by a non-AMF-authorized subcontractor for a subcontract subject to the O.C..

- **Service contracts (O.C. 795-2014)**

The detailed clauses we described above concerning the tendering documents examined in six boroughs were not found in any of the tendering documents reviewed in connection with these service contracts. The clauses in these tendering documents were limited to

²⁰ Ahuntsic-Cartierville, Le Plateau-Mont-Royal, Le Sud-Ouest, Montréal-Nord, Rivière-des-Prairies–Pointe-aux-Trembles and Villeray–Saint-Michel–Parc-Extension.

requiring subcontractors that work on subcontracts covered by the O.C. to hold the appropriate AMF authorization.

It is our view that efforts should be made to ensure the tendering documents used by the various boroughs are consistent. Furthermore, we believe that incorporating more detailed clauses in tendering documents, similar to the ones described earlier, to require the winning bidder to provide the borough with information on the amount and date of a subcontract would allow the boroughs to ensure all subcontractors comply with the orders in council.

4.1.1.2.B. Recommendation

We recommend that Ahuntsic-Cartierville, Anjou, Lachine, LaSalle, Mercier–Hochelaga-Maisonneuve, Outremont, Pierrefonds-Roxboro, Le Plateau-Mont-Royal, Rosemont–La Petite-Patrie, Saint-Laurent, Le Sud-Ouest, Verdun, Ville-Marie and Villeray–Saint-Michel–Parc-Extension make the necessary arrangements to include up-to-date clauses related to the orders in council in their tendering documents in an effort to mitigate the risk of non-compliance with applicable legislation.

4.1.1.2.C. Recommendation

We recommend that the Service de concertation des arrondissements, in conjunction with the Service des affaires juridiques, make the necessary arrangements so that the tendering documents used by the City's boroughs are consistent in applying the orders in council and in requiring the corresponding authorization from the Autorité des marchés financiers, in order to ensure compliance with all applicable laws.

Business unit's response:

[TRANSLATION] The Service de concertation des arrondissements, in conjunction with the Service des affaires juridiques, will meet with the borough directors to reacquaint them with existing tools (standardized documents, bank of legal documents) available to assist them in applying the orders in council and in obtaining the authorization from the Autorité des marchés financiers. (Planned completion: April-May 2016)

A new notice will also be sent to the boroughs about this topic. (Planned completion: May 2016)

4.1.2. Evaluation of Compliance and Valid Authorization

4.1.2.A. Background and Findings

The law²¹ stipulates that an enterprise that responds to a call for tenders for a public contract must be duly authorized by the AMF to enter into such a contract as of the date the bid is submitted, unless the call for tenders specifies an alternative date prior to the contract closing date. This rule applies to both O.C. 1049-2013 and O.C. 795-2014. It should be noted that AMF authorization is valid for three years.

Furthermore, although tendering documents should require a copy of the AMF authorization to be included with the bid, it is important to subsequently verify the authenticity of the document in order to avoid awarding a contract to a contractor whose AMF authorization has expired.

4.1.2.1. Mechanisms for Evaluating Bidders' Compliance with the Authorization Requirement of the Autorité des marchés financiers

4.1.2.1.A. Background and Findings

At this stage of our audit, we sought to determine the extent to which the boroughs had implemented mechanisms to ensure that bidders included AMF authorization in their bid and to verify that this authorization was valid as of the bid closing date.

Regarding the two orders in council that were the subject of the audit, our work revealed that a number of boroughs had implemented mechanisms to evaluate bid compliance vis-à-vis the AMF authorization (see Appendices 6.1 and 6.2). In accordance with these mechanisms, once bids have been received and opened, the compliance of the documents submitted with the bid must be examined and the validity of the AMF authorization confirmed. The evaluation tool of choice is an analysis table or a compliance checklist indicating the documents received and their respective compliance.

That said, for the 96 construction contracts (O.C. 1049-2013) we examined in our sample, our audit showed that the boroughs used a mechanism of this nature only 50% of the time. As for the 17 service contracts covered in our audit (O.C. 795-2014), this proportion dropped to 18% (see Appendices 6.1 and 6.2).

²¹ *Act Respecting Contracting by Public Bodies*, CQRL, Chapter C-65.1, Section 21.18.

More specifically, the examination of the contracts in our sample with regard to the two orders in council that were the focus of our audit showed that only three boroughs, namely Côte-des-Neiges–Notre-Dame-de-Grâce, LaSalle and Saint-Léonard, used an evaluation mechanism to check the AMF authorization in all of the records pertaining to the awarded contracts.

For the 16 other boroughs, our audit brought the following facts to light about our sample of construction and service contracts:

- For some boroughs, our examination of the contracts in the sample did not reveal any evidence that a compliance evaluation mechanism was used to verify the winning bidder's AMF authorization;
- Although this mechanism had been put in place in some of these boroughs, it had not been used on any of the contracts we examined;
- The compliance evaluation mechanism implemented by some boroughs does not include a check of AMF authorization.

Analyzing the validity of AMF authorization is a key part of the contract-awarding process. It makes it possible to ensure that bidders have included a copy of the AMF authorization with their bids and confirm that this authorization is valid as of the bid closing date. It is a crucial step in that, as we will see in Section 4.2 of this report, once the authorization has been authenticated, it must be attached to the decision-making summary for managers and elected officials to confirm compliance and help them make an informed decision when it comes time to award the contract.

4.1.2.1.B. Recommendation

We recommend that the Ahuntsic-Cartierville, Anjou, Lachine, L'Île-Bizard–Sainte-Geneviève, Mercier–Hochelaga-Maisonneuve, Montréal-Nord, Outremont, Pierrefonds-Roxboro, Le Plateau-Mont-Royal, Rosemont–La Petite-Patrie, Saint-Laurent, Le Sud-Ouest, Rivière-des-Prairies–Pointe-aux-Trembles, Verdun, Ville-Marie and Villeray–Saint-Michel–Parc-Extension boroughs introduce and make use of a compliance evaluation mechanism to verify that bidders are duly authorized by the Autorité des marchés financiers to enter into public contracts and to ensure the compliance of their contract-awarding process.

4.1.2.2. Examination of the Validity of the Winning Bidder's Authorization to Enter into Public Contracts as Issued by the Autorité des marchés financiers

4.1.2.2.A. Background and Findings

During the second stage of our audit, for 113²² out of 191 contracts in our sample, we also checked the validity of the AMF authorization submitted by the winning bidder with its bid and attempted to determine whether the boroughs obtained a copy of this authorization for contracts subject to the orders in council.

Accordingly, for the construction contracts in the sample (O.C. 1049-2013, see Appendix 6.1), our audit revealed that 13 boroughs obtained a copy of the winning bidder's AMF authorization for all of the contracts we examined. In addition, we determined that, for all of these contracts, the authorization was valid as of the date the bid was submitted. For the six other boroughs, our work highlighted the following:

- Anjou: For two contracts, we did not find any evidence that a copy of the winning bidder's AMF authorization had been obtained or that this authorization was valid when the bid was submitted, even though the borough's tendering documents contained a clause requiring bidders to provide a copy of their AMF authorization;
- Verdun: For one contract, the AMF authorization submitted by the winning bidder in its bid was actually its subcontractor's authorization;
- LaSalle, Lachine, Rosemont–La Petite-Patrie and Saint-Laurent: AMF authorizations were not obtained for one contract, for the reasons explained earlier in Section 4.1.1 related to the ambiguities observed in the interpretation and application of the orders in council as the tendering documents were being prepared. It is worth noting, however, that for one contract involving LaSalle borough, although the decision-making summary indicated that the contract was not subject to the *Integrity in Public Contracts Act* and the tendering documents did not require the winning bidder to produce AMF authorization, this proof was submitted nonetheless.

Finally, for the service contracts in the sample (O.E. 795-2014, see Appendix 6.2), our audit showed that five boroughs out of the nine where we were able to include contracts in our sample linked to this O.C. had obtained proof of AMF authorization from the winning bidders, for each of the contracts we examined. In addition, the authorizations obtained from the AMF were valid. For the four other boroughs, our work brought the following facts to light:

²² 96 construction contracts (O.C. 1049-2013) and 17 service contracts (O.C. 795-2014).

- Le Plateau-Mont-Royal: For one contract, the decision-making summary indicated that the winning bidder held AMF authorization, although we were not able to track this authorization down;
- LaSalle, Verdun, Villeray–Saint-Michel–Parc-Extension: AMF authorizations were not systematically obtained because of the facts outlined in Section 4.1.1 of this report, namely the ambiguities observed in the interpretation and application of the orders in council while the tendering documents were being prepared.

We believe it is important that, when authorization is required from the AMF pursuant to the orders in council, a copy of this authorization be kept on file, as is the case for most tendering documents, to ensure compliance with the law.

4.1.2.2.B. Recommendation

We recommend that the Anjou, Le Plateau-Mont-Royal and Verdun boroughs make the necessary arrangements to obtain a copy of the Autorité des marchés financiers authorization to enter into public contracts, when required, at the same time as bids are submitted in order to ensure the compliance of the contract-awarding process within each business unit.

4.1.3. Control Mechanisms for Subcontractors' Authorizations

4.1.3.A. Background and Findings

As we mentioned earlier in this report, both orders in council also apply to subcontracts. As a result, when the winning bidder is awarded a contract from the City and works with a subcontractor to provide work or services or supply bituminous compounds, this subcontractor must also be authorized by the AMF to enter into public contracts.

Accordingly, O.C. 1049-2013 (see Appendix 6.3) applies to all subcontracts that are directly or indirectly related to a contract for the construction, reconstruction, demolition, repair or renovation of roads, waterworks and sewer services involving an expenditure equal to or greater than \$25,000.

As for O.C. 795-2014 (see Appendix 6.3), it applies to all subcontracts for the supply of bituminous compounds involving an expenditure of \$25,000 or more, directly or indirectly related to a contract referred to in the O.C. (service contract valued at \$100,000 or more for the construction, reconstruction, demolition, repair or renovation of roads, waterworks or

sewer services or a contract for the supply of bituminous compounds involving an expenditure equal to or greater than \$100,000).

O.C. 795-2014 also applies to all service subcontracts related to the construction, reconstruction, demolition, repair or renovation of roads, waterworks or sewer services involving an expenditure of \$25,000 or more, directly or indirectly related to a contract referred to in the O.C. (service contract of \$100,000 or more related to the construction, reconstruction, demolition, repair or renovation of roads, waterworks or sewer services and supply contracts of bituminous compounds [\$100,000 and up]).

Lastly, O.C. 795-2014 applies to all service subcontracts related to the construction, reconstruction, demolition, repair or renovation of roads, waterworks or sewer services involving an expenditure equal to or greater than \$25,000, directly or indirectly related to a contract for the construction, reconstruction, demolition, repair or renovation of roads, waterworks or sewer services valued at \$100,000 or more. Likewise, it applies to all subcontracts for the supply of bituminous compounds involving an expenditure equal to or greater than \$25,000, directly or indirectly related to a contract for the construction, reconstruction, demolition, repair or renovation of roads, waterworks or sewer services valued at \$100,000 or more.

Boroughs, as the clients representing the City, have a legal relationship with the selected contractor, whereas the link for subcontractors is with the contractor, not the borough. However, for the sake of sound management, boroughs are obliged to ensure subcontractors' compliance with a variety of aspects. It is therefore essential that boroughs know the identity of these subcontractors and the nature of the work entrusted to them by the contractor selected to execute the contract. There are also certain legal obligations²³ that the contractor must heed in terms of providing information about subcontractors to the client.

The act²⁴ was amended in 2011 to impose obligations on contractors with regard to the information they provide about subcontractors when a contract with a public body, in this case, a municipal administration, is involved. Section 21.13 of the *Act Respecting Contracting by Public Bodies* requires contractors to provide public bodies referred to in the act (for these purposes, the City and its boroughs) with a list containing the following information for each subcontract before the performance of the contract begins²⁵:

- The name and address of the principal establishment of the subcontractor;
- The amount and date of the subcontract.

²³ *Act Respecting Contracting by Public Bodies*, CQRL, Chapter C-65.1, Section 21.13.

²⁴ *Act Respecting Contracting by Public Bodies*, CQRL, Chapter C-65.1, Section 21.13.

²⁵ *Act Respecting Contracting by Public Bodies*, CQRL, Chapter C-65.1.

Section 21.13 goes on to specify that contractors that, while a contract entered into with a public body or a body described in the act is in process, enter into a subcontract must notify the public body by providing a modified list before the performance of the subcontract begins.

In this same section, it is stated that contractors that fail to provide the required information are committing an offence and are subject to a fine of \$100 to \$400 (for an individual) and \$200 and \$800 (for a legal person), for each day the offence continues.

Generally speaking, the boroughs' tendering documents contain clauses that require contractors to provide a list of the subcontractors they plan to do business with as part of the contract. We observed that the documents in six boroughs repeated the legal provisions outlined above, practically word for word, and then added a requirement in their tendering documents to receive not only a list of the subcontracts involving an expenditure equal to or greater than \$25,000, but also a copy of the subcontractors' authorization to enter into public contracts as issued by the AMF, where applicable, without which the contractors would be considered to be in default of the contract.

Evaluating the compliance of contractors to which contracts are awarded should, in theory, be carried out at the same time bid compliance is being analyzed. For subcontractors awarded subcontracts related to these contracts, the compliance evaluation process is more complex when it comes to AMF authorization and requires different control mechanisms since the City is not contractually linked to them. Moreover, bidders have not necessarily finalized all their subcontracts when bidding for a contract or when the bids are being evaluated for compliance.

In order to be able to apply the provisions of the orders in council to the subcontracts and ensure subcontractors comply with the AMF authorization requirement, boroughs must have access to relevant information in this regard. To determine whether a subcontractor is required to obtain AMF authorization to enter into a contract, pursuant to both orders in council, it is necessary to have the information we listed earlier, e.g., the name of the subcontractor, the contact information, the value of the contract, the nature of the work or activities to be performed, and the contract's closing date.

That said, we believe that the boroughs should ensure they receive a full list of the selected subcontractors so they can validate for themselves whether the orders in council have been applied and whether the subcontractors are in compliance. It is worth remembering that O.C. 795-2014 also applies to subcontracts for the supply of bituminous compounds. The list must therefore include suppliers that have been awarded a subcontract of this nature.

A subcontract executed on a City work site by a subcontractor that does not hold AMF authorization represents a risk for the City. If a subcontractor were to be removed or changed as a result of non-compliance with these orders in council, it could delay the overall schedule and lead to various work management problems, not to mention the risk of an increase in costs for executing the work.

As a result, although there are no contractual ties per se between the City and subcontractors, we believe mechanisms should be put into place to ensure that the orders in council are being adhered to and that the subcontractors possess the necessary AMF authorization if required.

For 113²⁶ of the 191 contracts in our sample within the boroughs, we first sought to determine whether the boroughs had implemented reminder mechanisms to help them collect information on subcontractors with subcontracts that may have been assigned prior to the commencement of work (e.g., name and address of the subcontractor's principal establishment, and the amount and the date of the subcontract).

Our audit then consisted in examining whether the boroughs had adopted a follow-up mechanism to ensure they had obtained this list of subcontractors, complete with the aforementioned information, in order to verify their compliance with the orders in council.

As regards the introduction of reminder mechanisms to allow boroughs to collect information concerning these subcontractors to which subcontracts could be granted, our audit revealed that, in one or more pieces of correspondence with contractors, all of the boroughs mention that, in accordance with the two orders in council, they require a list of their subcontractors, the list of subcontracts valued at \$25,000 or more and a copy of the authorizations issued by the AMF to the subcontractors granted a subcontract covered by these orders in council. The various pieces of correspondence used include the letter confirming the awarding of the contract, the letter authorizing work to begin and the report from the project inception meeting.

However, our work showed that the reminder process lacked follow-through. We observed that these reminder mechanisms were not used for all of the contracts in the sample. Similarly, we were not always able to find specific evidence that the boroughs for all of the contracts in our sample had sought to obtain the list of subcontracts valued at \$25,000, as identified in the orders in council, or the copy of the AMF authorization for subcontractors subject to the orders in council for which a reminder had been issued by the borough. Furthermore, although the use of the letter authorizing work to begin and the report from the project

²⁶ 96 construction contracts (O.C. 1049-2013) and 17 service contracts (O.C. 795-2014).

inception meeting to remind contractors of their obligations is acceptable, we believe that the process should be initiated long before work is under way. In this regard, the *Act Respecting Contracting by Public Bodies*²⁷ clearly states that contractors must forward to the City the aforementioned information before performance of the contract begins, as well as a modified list while a contract is in process when they enter into a subcontract.

As a result, based on the contracts in our sample, our audit subsequently entailed examining the extent to which the list of information required of contractors, either under the law or via provisions in the tendering documents, had been obtained by the boroughs. We questioned how subcontractors' compliance with the orders in council had been checked.

Excluding contracts for which we had information confirming that there were no subcontractors involved, our audit revealed that the lists containing the information required under the law were not systematically obtained for the contracts we examined.

In addition, we observed that, in all of the boroughs, when these lists were sent, they did not always contain the required information, particularly as it pertains to the amount of the subcontract and the date it was entered into.

Regarding subcontractors' authorization to enter into public contracts, as issued by the AMF, our investigation did not always turn up evidence that the boroughs had confirmed subcontractors' compliance with the applicable orders in council. For example, in several of the contracts in our sample, we found written declarations of contracts²⁸ submitted to boroughs by subcontractors. In these declarations, the subcontractors inform the borough that they have obtained a subcontract from the contractor to which the borough has awarded a contract. Generally speaking, the declarations we examined stipulated the amount of the work, the description of the work performed and the date the contract was entered into. However, not all of the declarations we examined contained this information, especially when it came to the amount of the subcontract. Furthermore, the examination of these declarations led us to the following conclusions:

- The subcontract-related declarations found for one contract were not consistent with the list of subcontractors on file for this same contract;

²⁷ CQRL, Chapter C-65.1.

²⁸ The purpose of this written declaration is to allow owners to make sure that, prior to finalizing the contract payment, subcontractors that have filed such a declaration have been paid by the intermediary that requested the work to be performed.

- Declarations for subcontracts valued at more than \$25,000 involved construction, services and the supply of bituminous compounds. However, we found no evidence that these subcontractors obtained AMF authorization;
- For one contract, we found the subcontractor declarations but no list of subcontractors.

The fact that we were not able to track down the lists of subcontractors, or written confirmation that no subcontractors had been used, for all of the contracts in our sample casts doubt on whether both orders in council were fully complied with.

In our opinion, it is essential to implement follow-up mechanisms to ensure lists of subcontractors containing the information required under the law are received in order to confirm that said subcontractors are in compliance with the orders in council. Mechanisms of this nature could also be used to indicate non-adherence to the law in instances where the list of subcontractors has not been sent to the borough as required. These mechanisms may also be useful as evidence should a borough wish to make use of the remedies set out in the contract (default clauses) with regard to the requirements related to this information.

In this respect, we observed during the course of the audit that only a few boroughs use logs to track various pieces of information required under the law, namely Ahuntsic-Cartierville, Pierrefonds-Roxboro, Rivière-des-Prairies–Pointe-aux-Trembles and Verdun.

Despite everything, although we believe that this follow-up mechanism represents an effective management practice, we have yet to locate evidence that it has been used for all of the contracts in our sample in the four boroughs we audited. Likewise, the documents we did find and examine did not necessarily include all of the information required to carry out an exhaustive check to ensure adherence to the law and subcontractors' compliance with the orders in council. Specifically missing are the date the list of subcontractors was received, the amount of the work, the date the subcontract was entered into, the name and address of the subcontractor's principal establishment and a description of the work performed.

4.1.3.B. Recommendation

We recommend that all of the City's boroughs use a mechanism to remind winning bidders to respect their obligations under the law and submit all required information concerning subcontractors in order to ensure all subcontractors are in compliance with the orders in council.

4.1.3.C. Recommendation

We recommend that all of the City's boroughs make the appropriate arrangements to implement and use a follow-up mechanism to track the actual receipt of all information required of the winning bidder under the law in order to justify the use of default clauses when necessary.

4.2. Information Conveyed Prior to the Awarding of a Contract

4.2.A. Background and Findings

Prior to awarding a contract, a file must be established to allow the appropriate managers and elected officials, as applicable, to make an enlightened decision. To achieve this, the managers involved in the decision-making process and elected officials must be properly informed to ensure that all of the necessary checks to ensure compliance with applicable laws, regulations, by-laws and orders in council have been performed in advance.

The decision-making process at the City is supported by a computer application commonly known as the GDD (decision-making record management system), which stores the records to be submitted to various authorities (BC, EC, CC or UAC) for approval. These records are in the form of a decision-making summary, in which a range of information is entered and to which the relevant documents can be attached to assist in sound decision-making.

Following the adoption of O.C. 1049-2013 and O.C. 795-2014, the City's Service du greffe issued a notice²⁹ in January 2014 to all of the City's business units concerning the nature of the information to be included in decision-making summaries to enable the central authorities (EC, CC and UAC) to award contracts. This notice was issued as a complement to the information already contained in the various guides to developing decision-making records prepared by the Service du greffe and the Direction générale. The notice mentions that EC members expect decision-making summaries related to contract awarding to contain information on whether or not the contracts are subject to the *Integrity in Public Contracts Act*³⁰ or an O.C. adopted under this act. The decision-making summary must therefore confirm whether bidders comply with the AMF authorization requirement, when applicable, or indicate that the contract is not subject to this authorization.

²⁹ Notice No. 587, Ville de Montréal, January 20, 2014.

³⁰ SQ, 2012, Chapter 25.

Moreover, in October 2015, the Direction générale of the Ville de Montréal updated its guide (*Octroyer un contrat*³¹) on the content and layout of decision-making records. This guide is available to all personnel through the City's intranet portal. It indicates that, when a decision-making summary is being prepared for a contract, the date a bidder received AMF authorization must be entered in the "Justification" section of the decision-making summary, with a copy attached. This applies to all contracts subject to the *Integrity in Public Contracts Act*. The guide also stipulates that, for all contracts not subject to the *Integrity in Public Contracts Act*, the decision-making summary should explicitly indicate that the enterprise does not hold this authorization. However, if the winning bidder holds this authorization even when not required, this should still be included in the decision-making summary. Note that these information requirements were already outlined in the previous version of the guide dated August 2014³² and that part of this information, specifically as concerns the date authorization was issued and the requirement to attach a copy of the authorization to the decision-making summary, was already included in the November 2013 version of the guide.³³

Finally, while consulting the documents made available to all City personnel via the GDD application, we learned of two documents issued by the Service des affaires juridiques concerning the *Integrity in Public Contracts Act*,³⁴ one dated March 27, 2013, and the other December 2, 2014. In both, the recommendation is to attach, when required, a copy of the AMF authorization to the decision-making summary to confirm to the relevant authorities during the contract-awarding process that the recommended bidder holds a valid AMF authorization. As the reader may recall, AMF authorization remains valid for three years.

In light of this information, we must conclude that efforts have been made to raise awareness among the City's business units about the importance of providing decision-making authorities with all of the relevant information concerning the application of the orders in council during the contract-awarding process and, as required, confirmation that a contractor holds a valid authorization from the AMF to enter into public contracts. This information is essential for managers and elected officials. Recording the date of AMF authorization in the decision-making summary, attaching a copy of the authorization obtained from the contractor or indicating that the contract is not subject to the O.C. pursuant to its rules and that the bidder is not required to obtain this authorization for the contract all help reassure decision-

³¹ See *Éléments de contenu et de présentation des dossiers décisionnels : Guide spécifique : octroyer un contrat*. Direction générale, Ville de Montréal, October 2015.

³² *Éléments de contenu et de présentation des dossiers décisionnels : Guide spécifique : octroyer un contrat*. Direction générale, Ville de Montréal, August 2014.

³³ *Éléments de contenu et de présentation des dossiers décisionnels : Guide spécifique : octroyer un contrat*. Direction du greffe, Ville de Montréal, November 2013.

³⁴ SQ, 2012, Chapter 25.

making authorities that the process is compliant and thus assist them in making informed decisions.

That said, regarding the application of O.C. 1049-2013 and O.C. 795-2014, our audit consisted in examining the nature of the information contained in the decision-making summaries and the supporting documentation for all 191 contracts in the sample in each of the City's 19 boroughs (see Appendices 6.1 and 6.2). More specifically, the focus of our examination of the decision-making summaries was on locating the following:

- Confirmation of the date the winning bidder received AMF authorization to enter into public contracts;
- Inclusion of the AMF authorization as an attachment to the decision-making summary;
- Any evidence of confirmation that the contract is not subject to the *Integrity in Public Contracts Act*³⁵ and that the contractor is not bound to obtain this authorization for the contract in question.

- **Construction contracts (O.C. 1049-2013³⁶)** (see Appendix 6.1)

For the 174 construction contracts we audited, we ascertained that only the boroughs of L'Île-Bizard–Sainte-Geneviève and Montréal-Nord provided all of the information required in 100% of the decision-making summaries related to the selected contracts, namely the date of the AMF authorization along with an attached copy or a mention that the contractor was not required to obtain this authorization.

In the other boroughs, we observed that practices vary and that the information required for decision-making summaries is sometimes lacking. Specific observations are as follows:

- Although the process requires further improvement, the decision-making summaries examined in the three boroughs mentioned below contained, for the most part, the required information concerning the date of the AMF authorization and the inclusion of this authorization in the attachments:
 - Ø Côte-des-Neiges–Notre-Dame-de-Grâce borough (78%);
 - Ø Le Plateau-Mont-Royal borough (83%);
 - Ø Pierrefonds-Roxboro borough (93%);
- Ahuntsic-Cartierville borough indicated the date of AMF authorization 85% of the time in its decision-making summaries, but attached a copy of this authorization only 15% of the time. In comparison, Le Sud-Ouest borough mentioned the date of the AMF

³⁵ SQ, 2012, Chapter 25.

³⁶ This O.C. applies to contracts related to the construction, reconstruction, demolition, repair or renovation of roads, waterworks and sewer services involving an expenditure equal to or greater than \$100,000.

authorization 88% of the time, but included this authorization as an attachment to the decision-making summary every time;

- The boroughs of Lachine (75%) and Mercier–Hochelaga-Maisonneuve (100%) tended to include the AMF authorization in the attachments without mentioning it in the body of the decision-making summary;
- As for the 10 other boroughs³⁷ audited, our investigation revealed that the required information concerning evidence of AMF authorization to enter into public contracts was included less frequently (60% and lower) in decision-making summaries. We also determined that the Villeray–Saint-Michel–Parc-Extension borough provides no information of this nature in its decision-making summary.

It is our view that the inclusion in the decision-making summary of a copy of the AMF authorization to enter into public contracts, as well as the date it was granted, is necessary to enable managers and elected officials to make informed decisions. This is all the more important considering that, according to our examination of the selected files, in nearly all of the cases (93%), AMF authorization was obtained when bids were submitted. The inclusion of this information in the decision-making summary, on one hand, confirmed the existence of this approval process to the powers that be and, on the other hand, corroborated the validity of the authorization requirement in the contract-awarding process.

On a related topic, of all of the construction contracts selected for examination (O.C. 1049-2013), 23% (40/174, see Appendix 6.1) were the subject of a decision-making summary prepared for the most part by borough personnel for approval by central authorities (EC, CC and UAC). Our audit revealed that 80% of these decision-making summaries (32/40) contained the expected information vis-à-vis AMF authorization. A copy of this authorization was found in decision-making summary attachments 93% of the time.

The decision-making summaries prepared by the boroughs for approval by their respective BCs represented 77% (134/174) of the sample we focused on. Our audit revealed that only 34% (45/134, see Appendix 6.1) of these decision-making summaries included the requisite information regarding the date of the AMF authorization. As for the copy of the authorization that is supposed to be attached to the decision-making summary, even after excluding the decision-making summaries for contracts that were not subject to a specific act or O.C., 45% of the summaries were missing a copy of the respective AMF authorization.

In conclusion, it would appear that the decision-making summaries prepared for contracts awarded by a central authority (EC, CC or UAC) possess more comprehensive information

³⁷ Anjou, LaSalle, Outremont, Rivière-des-Prairies–Pointe-aux-Trembles, Rosemont–La Petite-Patrie, Saint-Laurent, Saint-Léonard, Verdun, Ville-Marie and Villeray–Saint-Michel–Parc-Extension.

with regard to AMF authorization than do the summaries prepared for BCs. We nevertheless feel that the BCs are entitled to the same level of information to help them in making their decisions.

- **Service contracts (O.C. 795-2014³⁸)** (see Appendix 6.2)

As pertains to O.C. 795-2014, a smaller number of contracts (17) was examined because of the shorter timeframe and nature of the contracts (services). As illustrated in Appendix 6.2, the service contracts we documented were limited to nine boroughs, namely Ahuntsic-Cartierville, Lachine, LaSalle, Le Plateau-Mont-Royal, Outremont, Pierrefonds-Roxboro, Saint-Laurent, Verdun and Villeray–Saint-Michel–Parc-Extension.

For all 17 records in our sample for the nine boroughs, the results of the audit showed that the corresponding decision-making summaries include the date of the AMF authorization only 12% of the time and that the authorization is included as an attachment only 18% of the time. And yet, as was the case for the construction contracts we audited, our efforts showed that, in a large majority of cases (71%), AMF authorization had been obtained in time for the bid submission deadline.

4.2.B. Recommendation

We recommend that, with the exception of Montréal-Nord and L'Île-Bizard–Sainte-Geneviève, the City's 17 other boroughs make the necessary arrangements to ensure that all of the decision-making summaries prepared as part of the contract-awarding process include, as stipulated in the applicable guides, all of the required information concerning the application or non-application of the orders in council in order to provide the designated authorities with the assurance that the recommended bidder complies with legislation.

The following replaces the individual responses of the business units to these recommendations and summarizes their action plans:

[TRANSLATION] Depending on the circumstances specific to their business unit, three to seven recommendations applied to each of the 19 boroughs.

As of April 7, 2016, the action plan for Le Sud-Ouest borough had not yet been received by our offices.

³⁸ This O.C. applies to service contracts related to the construction, reconstruction, demolition, repair or renovation of roads, waterworks or sewer services involving an expenditure equal to or greater than \$100,000.

Overall, the 18 boroughs that submitted their action plans indicated their agreement with the recommendations applicable to them. The action plans we received outline a series of relevant initiatives to implement these recommendations within a timeframe that does not extend beyond 2016.

The key corrective measures proposed are as follows:

- Develop checklists to ensure information in the tendering documents is consistent with information in decision-making summaries;
- Develop administrative compliance grids to determine whether or not contracts are subject to a given O.C., to ensure clauses concerning the orders in council are included in tendering documents and to verify that bidders submit a valid copy of their authorization to enter into public contracts as issued by the AMF;
- Use mechanisms to remind winning bidders to forward the required information to their subcontractors to enable the City to comply with the provisions in the orders in council;
- Include information related to AMF authorization in decision-making summaries to assist managers and elected officials with their decision-making responsibilities.

5. Conclusion

Given the laws and amendments adopted since 2010 to fight corruption at the local government level and promote integrity in the awarding of municipal contracts, it is important for all of the City's business units to take the necessary measures to ensure that the contractors they intend to deal with, and their subcontractors, comply with the new rules that have been established.

In this context, although the audit of the 19 City boroughs allowed us to determine that some measures had been taken in an effort to ensure compliance with the requirements outlined in the orders in council regarding such aspects as contractors' obligation to hold an authorization from the Autorité des marchés financiers (AMF) to enter into public contracts, it is clear that additional efforts must be made to reinforce the integrity and compliance of the process.

We ascertained that it can be difficult to tell if the orders in council apply to the work associated with a given contract. Our audit shed light on the fact that there can be a lack of consistency in the information that appears in the tendering documents, the details posted to Système électronique d'appel d'offres (SÉAO) and the content of the decision-making summaries. It also seems that interpreting and applying the orders in council can be problematic for certain types of contracts (e.g., contracts for road marking and signage). These situations inevitably result in confusion, which may mislead potential bidders or increase the chances of a contract being awarded to a non-compliant bidder. We therefore

believe that developing and distributing a guide to aid in the interpretation and application of the orders in council would support the business units in mitigating risks of this nature.

With regard to compliance with applicable orders in council by subcontractors retained by winning bidders, our audit revealed that clauses in the various tendering documents are not consistent on a City-wide basis. As a result, subcontractors may not be required to provide information that would make it possible to achieve the desired outcomes. Accordingly, we feel that various measures must be taken to promote compliance with the orders in council and consistency among the tendering documents used by the City's business units.

At the same time, our audit highlighted that mechanisms to remind contractors of their obligations and to follow up on the documents received have not systematically been implemented and adopted by each of the boroughs in order to check that the subcontractors selected to execute various subcontracts (e.g., a list of subcontractors for each contract, including the information required by law). And yet these mechanisms could prove useful in the event a borough wishes to invoke a default clause, as the risk of non-compliance is quite real and can have a significant impact on the way contracts are managed and how efficiently and effectively work proceeds.

Finally, we observed that actions have been taken to make a guide available to all of the City's business units and to issue notices indicating the nature of information to be submitted to the authorities in decision-making summaries to confirm the recommended bidder's compliance with the law. We nevertheless believe that the situation should be re-evaluated at a later date, since our work showed that managers and elected officials in the boroughs do not have access to all the information required to make informed decisions, whereas the managers and elected officials in the central authorities (EC, CC and urban agglomeration council [UAC]) do.

6. Appendices

6.1. Analysis of a Sample of Construction Contracts on a Borough-by-Borough Basis – O.C. 1049-2013 (January 1, 2014 to August 31, 2015)

Table A – Construction Contracts

Borough	Number of decision-making summaries examined by criterion	Criterion 1 Mechanisms to ensure authorization is obtained when bids are submitted			Criterion 2 Mechanisms to inform managers and elected officials prior to awarding a contract	
		Clauses in tendering documents that require proof of authorization to be submitted with bid Clauses up to date ³⁹	Mechanisms to evaluate bid compliance (AMF)	Copy of valid authorization submitted with bid	Information in the GDD system mentioning the date of the authorization or indicating that the enterprise is not required to obtain authorization	AMF authorization attached to the decision-making summary (GDD system)
Ahuntsic-Cartierville	Criterion 1: 7 Criterion 2: 13	100% 7/7 Not up to date (3) ⁴⁰	7/7 100%	7/7 100%	11/13 85%	2/13 15%
Anjou	Criterion 1: 4 Criterion 2: 8	4/4 100% Not up to date (2)	2/4 50%	2/4 50%	0/8 0%	3/8 38%
Côte-des-Neiges–Notre-Dame-de-Grâce	Criterion 1: 5 Criterion 2: 9	5/5 100% Up to date	5/5 100%	5/5 100%	7/9 78%	7/9 78%
Lachine	Criterion 1: 6 Criterion 2: 12	6/6 100% Not up to date (2)	5/6 83%	5/6 83%	0/12 0%	9/12 75%
LaSalle	Criterion 1: 7 Criterion 2: 14	6/7 86% Not up to date (2)	7/7 100%	6/7 86%	5/14 36%	2/14 14%
L'Île-Bizard–Sainte-Geneviève	Criterion 1: 4 Criterion 2: 4	4/4 100% Up to date	3/4 75%	4/4 100%	4/4 100%	4/4 100%
Mercier–Hochelega-Maisonneuve	Criterion 1: 4 Criterion 2: 8	4/4 100% Not up to date (2)	1/4 25%	4/4 100%	0/8 0%	8/8 100%
Montréal-Nord	Criterion 1: 5 Criterion 2: 9	5/5 100% Up to date	3/5 60%	5/5 100%	9/9 100%	9/9 100%
Outremont	Criterion 1: 3 Criterion 2: 3	3/3 100% Not up to date (1)	2/3 67%	3/3 100%	0/3 0%	1/3 33%

³⁹ Tendering documents for which the call for tenders was issued after September 24, 2014, must include the most recent sample clauses to take into account additions made to O.C. 795-2014 concerning service subcontracts and subcontracts for bituminous compounds used in construction contracts.

⁴⁰ Number of contracts for which the tendering documents are not up to date (do not contain recent sample clauses).

Table A – Construction Contracts (continued)

Borough	Number of decision-making summaries examined by criterion	Criterion 1 Mechanisms to ensure authorization is obtained when bids are submitted			Criterion 2 Mechanisms to inform managers and elected officials prior to awarding a contract	
		Clauses in tendering documents that require proof of authorization to be submitted with bid	Mechanisms to evaluate bid compliance (AMF)	Copy of valid authorization submitted with bid	Information in the GDD system mentioning the date of the authorization or indicating that the enterprise is not required to obtain authorization	AMF authorization attached to the decision-making summary (GDD system)
Pierrefonds-Roxboro	Criterion 1: 8 Criterion 2: 15	8/8 100% Not up to date (4)	0/8 0%	8/8 100%	14/15 93%	14/15 93%
Le Plateau-Mont-Royal	Criterion 1: 3 Criterion 2: 6	3/3 100% Not up to date (1)	2/3 67%	3/3 100%	5/6 83%	5/6 83%
Rivière-des-Prairies–Pointe-aux-Trembles	Criterion 1: 7 Criterion 2: 13	7/7 100% Up to date	0/7 0%	7/7 100%	7/13 54%	6/13 46%
Rosemont–La Petite-Patrie	Criterion 1: 4 Criterion 2: 7	4/4 100% Not up to date (3)	3/4 75%	3/4 75%	0/7 0%	1/7 14%
Saint-Laurent	Criterion 1: 7 Criterion 2: 13	6/7 86% Not up to date (2)	0/7 0%	6/7 86%	1/13 8%	5/13 38%
Saint-Léonard	Criterion 1: 3 Criterion 2: 7	3/3 100% Up to date	3/3 100%	3/3 100%	0/7 0%	0/7 0%
Le Sud-Ouest	Criterion 1: 4 Criterion 2: 8	4/4 100% Not up to date (2)	2/4 50%	4/4 100%	7/8 88%	8/8 100%
Verdun	Criterion 1: 6 Criterion 2: 11	6/6 100% Not up to date (4)	1/6 17%	5/6 83%	5/11 45%	4/11 36%
Ville-Marie	Criterion 1: 5 Criterion 2: 10	5/5 100% Not up to date (2)	1/5 20%	5/5 100%	2/10 20%	6/10 60%
Villeray–Saint-Michel–Parc-Extension	Criterion 1: 4 Criterion 2: 4	4/4 100% Not up to date (3)	1/4 25%	4/4 100%	0/4 0%	0/4 0%
TOTAL	Criterion 1: 96 Criterion 2: 174	94/96 98%	48/96 50%	89/96 93%	77/174 44%	94/174 54%
Decision-making summaries prepared by the boroughs for the central authorities	40	40/174 23%			32/40 80% Central: 40 (for 32, the date is included)	37/40 93% 37 joint authorizations
Decision-making summaries for boroughs	134	134/174 77%			77 - 32 = 45 45/134 34%	134 - 8 = 126 57 joint authorizations 57/26 45%
TOTAL	174	100%				

6.2. Analysis of a Sample of Service Contracts on a Borough-by-Borough Basis – O.C. 795-2014 (October 1, 2014 to August 31, 2015)

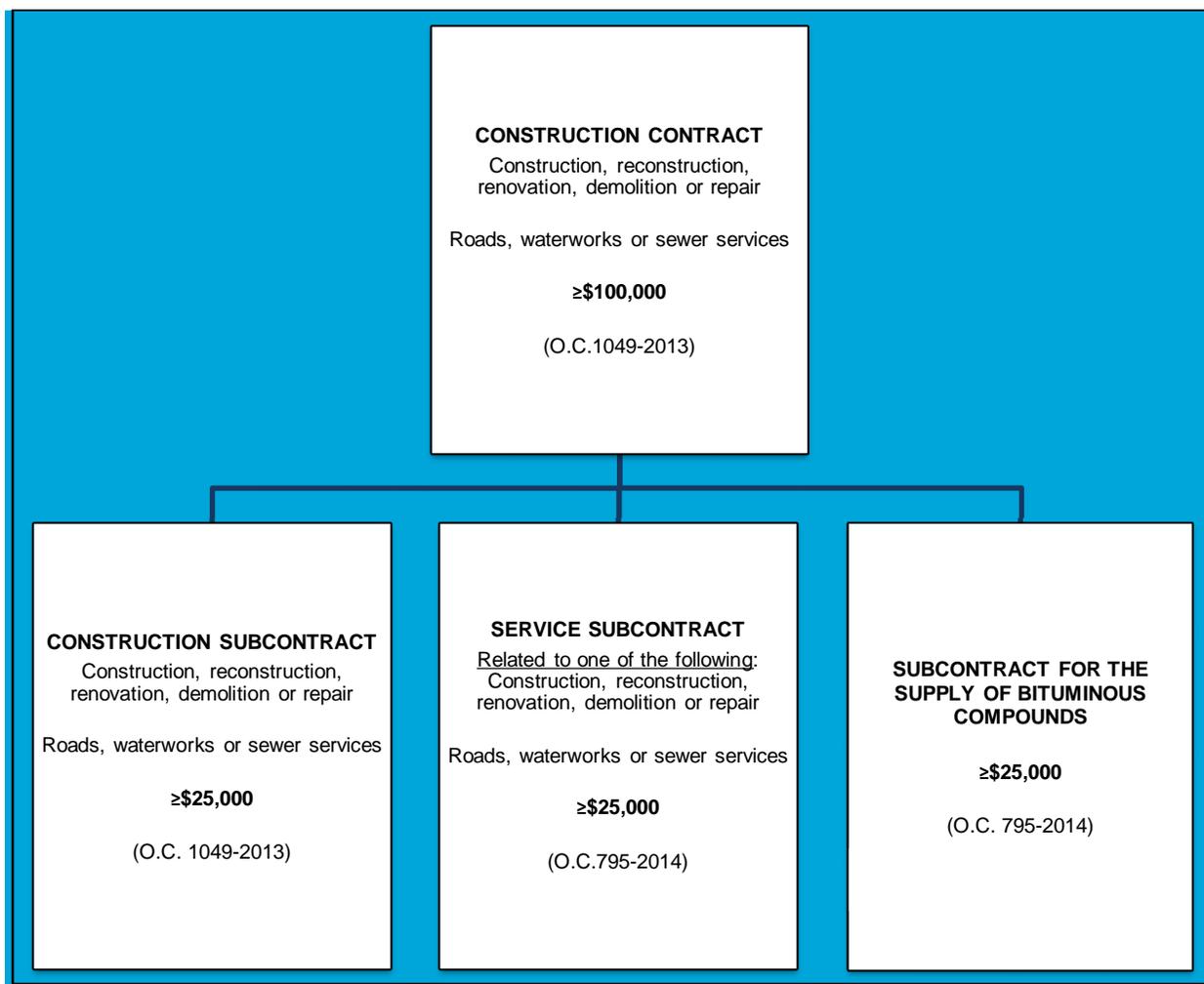
Table B – Service Contracts

Borough	Number of decision-making summaries examined according to two criteria	Criterion 1 Mechanisms to ensure authorization is obtained when bids are submitted			Criterion 2 Mechanisms to inform managers and elected officials prior to awarding contracts	
		Clauses in tendering documents that require proof of authorization to be submitted with bid	Mechanisms to evaluate bid compliance with AMF	Copy of valid authorization obtained with bid	Information in the GDD system mentioning the date of authorization or indicating that the firm did not obtain authorization	AMF authorization attached to the decision-making summary (GDD system)
Ahuntsic-Cartierville	2	2/2 100%	0/2 0%	2/2 100%	0/2 0%	0/2 0%
Lachine	1	1/1 100%	0/1 0%	1/1 100%	0/1 0%	1/1 100%
LaSalle	2	1/2 50%	2/2 100%	1/2 50%	1/2 50%	0/2 0%
Outremont	1	1/1 100%	1/1 100%	1/1 100%	0/1 0%	0/1 0%
Pierrefonds-Roxboro	1	1/1 100%	0/1 0%	1/1 100%	0/1 0%	0/1 0%
Le Plateau-Mont-Royal	2	1/2 50%	0/2 0%	1/2 50%	1/2 50%	1/2 50%
Saint-Laurent	4	3/4 75%	0/4 0%	4/4 100%	0/4 0%	1/4 25%
Verdun	2	0/2 0%	0/2 0%	0/2 0%	0/2 0%	0/2 0%
Villeray–Saint-Michel–Parc-Extension	2	0/2 0%	0/2 0%	1/2 50%	0/2 0%	0/2 0%
TOTAL	17	10/17 59%	3/17 18%	12/17 71%	2/17 12%	3/17 18%

6.3. Diagram Illustrating How Orders in Council Are Applied

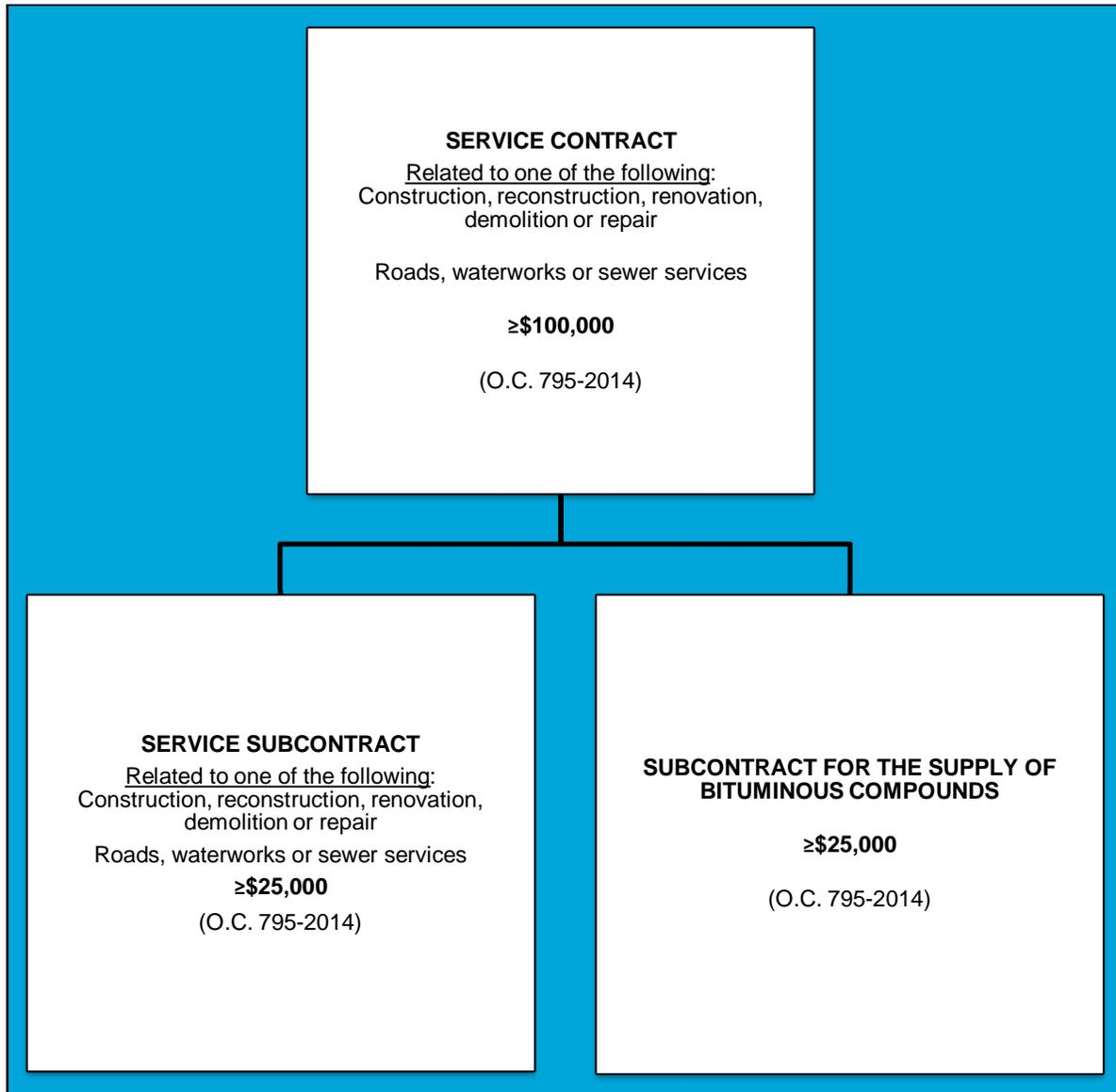
O.C. 1049-2013 and O.C. 795-2014 apply to the following contracts and subcontracts, which, within the framework of the Ville de Montréal, are subject to Chapter V.II of the *Act Respecting Contracting by Public Bodies*.

Figure A – Construction Contract



Source: Service des affaires juridiques, Ville de Montréal, 2014.

Figure B – Service Contract



Source: Service des affaires juridiques, Ville de Montréal, 2014

Framework Agreements for IT Professional Services

(Service des technologies
de l'information)



Table of Contents

1. Background.....	181
2. Purpose and Scope of the Audit.....	182
3. Main Findings.....	183
4. Audit Results.....	184
4.1. Acquisition Process	184
4.2. Administration of Framework Agreements	200
5. Conclusion	213

List of Acronyms

BDP	bureau de projets	PC	project controller
DPS	Division Performance TI et sourçage	STI	Service des technologies de l'information
EPM	Enterprise Project Management	TCWP	Three-year capital works program
IT	Information technology		

4.4. Framework Agreements for IT Professional Services (Service des technologies de l'information)

1. Background

The mission of the Service des technologies de l'information (STI) is to support the City's business units in the delivery of services to Montrealers by operating, maintaining and developing business solutions and technology infrastructure, by actually carrying out agreed-upon projects and by supporting technology users. To this end, the STI has an annual operating budget in the order of \$70M and a Three-year capital works program (TCWP) estimated at \$240M for the fiscal years 2015–2017. The STI's project portfolio for this period consists of 26 ongoing projects, including nine new priority projects in 2015.

The STI's project teams are made up of an internal workforce and external resources. These external back-up resources are used where needed to complete the projects and serve to supplement internal resources when more specialized technical skills are required.

Following public call for tenders No. 12-11916, the authorities approved five professional fee arrangements in 2012 pertaining to framework agreements for information technology (IT) back-up resources, according to five profile family groups. These three-year framework agreements ending in December 2015 were meant to enable the STI to meet the majority of its external resource requirements. The budget allocations authorized for these agreements total \$32.4M and are spread among the firms presented in Table 1.

Table 1 – Framework Agreements

Firm	Profile groups	Agreement (\$)
1. Cofomo	Project Management, Architecture, Computer Security	\$7,212,388
2. Systematix	System Development	\$8,039,960
3. CGI	Specialized Systems Development	\$2,460,833
4. DMR-Fujitsu	Oracle ERP Integrated Solutions Specialty	\$13,773,059
5. Dessau	Geomatics Specialty	\$948,164
Total		\$32,434,404

Note that Group 6 – Telecommunications Specialty included in this call for tenders was not part of a framework agreement, since the only bid received failed to obtain a passing score.

In response to events that occurred in 2008, the STI conducted an extensive review of its business practices. It developed a new strategy and orientations for the 2012 call for tenders process and identified certain vulnerabilities in its controls when using back-up resources. In doing so, it changed the management framework of its projects and programs. It put in place a team responsible for managing framework agreements, which reported to the Direction bureau de projets (BDP) up until the start of 2014. Following implementation of the STI's new management structure, this responsibility is now assumed by the Division Performance TI et sourcing (DPS), which reports directly to the director of the STI. At the time of our audit, this new division was in the process of being set up; therefore, training of the team had not been completed.

Against this backdrop and given the expectations expressed to us by the STI's director regarding our desired intervention on the contract management framework, we deemed it timely to audit the framework agreements for IT professional services.

2. Purpose and Scope of the Audit

The purpose of our audit was to determine whether the acquisition process and the administration of framework agreements for IT professional services are managed in accordance with the normative framework in force and with sound management principles.

More specifically, our audit consisted first in reviewing the main steps in the acquisition process, i.e., determining requirements, analyzing options, soliciting the market, launching a competitive bidding process, and selecting the firms. Second, we examined the controls applied to the use of framework agreements, in particular those related to the processes used to request external resources, control costs and the schedule and perform accountability reporting.

To this end, we gathered information during interviews with STI representatives and examined various documents, including those related to the process used in public call for tenders No.12-11916, with the City's repository for information technology and communications (ITC) project management, the *Guide d'encadrement administratif – Utilisation des ententes-cadres en ressources d'appoint informatiques* and the supporting billing data of the firms.

Our audit covered the period from January 1, 2013 to June 30, 2015, and the results are based on the state of affairs that prevailed at October 31, 2015, with the exception of the "Billing and Payment Authorization" component mentioned in section 4.2.3 of this report.

For this component, we carried out additional auditing procedures covering the entire period of the framework agreements ending on December 31, 2015. Accordingly, subsequent amendments or improvements that may have been made are not reflected in this report.

3. Main Findings

At the end of our audit, we reached the following key findings:

- **Acquisition Process**
 - Requirement planning was not substantiated by proper analysis of the overall work to be accomplished and the internal capacity of the STI in terms of skills and experience profiles;
 - Filling the requirements through framework agreements was not substantiated by a thorough analysis of the costs, risks, constraints and advantages of each of the alternatives;
 - Soliciting the market failed to achieve the objective of free and open competition, especially for Groups 3, 4, 5 and 6;
 - Analysis of the bids was not as thorough as expected, especially regarding the hourly rates termed “disproportionate” that were submitted by the prospective successful bidder of Groups 1, 3 and 5;
 - The chosen contracting method resulted in firms assuming only a small share of the risks associated with completing the mandates entrusted to them.

- **Administration of Framework Agreements**
 - Several external resources were used to perform strategic functions during pre-project phases, although under the STI's frameworks the use of these resources during these phases must be on an exceptional basis;
 - The STI's requests for external resources, made using the “mandate form”, were often generic, without establishing a link to the project and failing to specify deliverables or specific milestones, making it difficult to monitor the work being performed;
 - Only 8 of the 346 resources proposed in the bids tendered by the successful bidders provided services to the STI. Moreover, the contractual provisions made no mention of the terms regarding the successful bidder's obligation to provide the staff designated in its bid or their replacement. In addition, we found several mandate forms in which the required skills were below those set out in the profile defined in the framework agreements;

- Internal control gaps in the process of entering, approving, billing and authorizing payment of external resources' time carry the risk that the amounts billed do not faithfully represent the actual hours worked on the various mandates;
- Only one performance evaluation of a sample of external resources was done since the start of the framework agreements, while no evaluation of the firms was ever carried out;
- The monthly accountability reporting slated for the framework agreements was done only on request, and its contents did not enable monitoring of the financial progress of the agreements. In addition, the accountability report was not disseminated to all the appropriate management levels.

4. Audit Results

4.1. Acquisition Process

Our audit showed that, in general, the legal and regulatory provisions governing the awarding of contracts, such as the choice of method for soliciting the market, and the composition and neutrality of the selection committees, were observed. Nevertheless, several steps prior to the awarding of the framework agreements were not performed as thoroughly as expected. In the following sections, we present our findings and recommendations for opportunities for improvement that we have highlighted.

4.1.1. Requirement Determination

4.1.1.A. Findings

Under the City's procurement policy guidelines:

[TRANSLATION] "Determining the qualitative (technical), quantitative (consumption forecasts), temporal (deadlines), destination (near the place of use), and fair price (estimate) aspects of the requirements to be met is essential."¹

The team steering the call for tenders process, in collaboration with the persons responsible for project management, helped determine the requirements. Using current and future project plans, they estimated the number of hours required per profile. Based on the difference between this number of hours and the one obtained from the profiles already filled in-house, they determined the requirements to be met for the bureau de projets (BDP) to be able to

¹ Source: Procurement policy of the Ville de Montréal, adopted on October 27, 2011, Section 7.1 *[TRANSLATION]* "Requirement Planning and Determination."

complete the Three-year capital works program (TCWP) projects entrusted to it. The Service des technologies de l'information (STI) did not, however, have at its disposal a clear picture of the skills and experiences associated with these profiles.

No documentation could be provided to us to support the determination of the requirements to be met. We would also have expected to find an analysis of the STI's staff with regard to skills and experience profiles.

As part of its requirement planning, the STI decided on a strategy and orientations for the types of tasks that it hoped to entrust to external resources. According to the *Document d'orientations ressources d'appoint en informatique*, prepared by the STI for the purposes of the 2012 call for tenders, the guidelines for using back-up resources were to supplement its project teams with external resources that have specialized technical skills, to exclude strategic functions and to develop internal expertise in the areas of administration, portfolio management, project controller (PC) and project managers (except senior managers). Accordingly, several profiles that had been included in previous framework agreements, such as those of portfolio manager, strategic advisor and PC, were excluded in the 2012 call for tenders.

These STI orientations are in keeping with sound business practices when using external information technology (IT) resources. By entrusting strategic functions to internal resources rather than external ones, the STI ensures that it keeps control over its projects and maintains its expertise. Québec's Conseil du trésor Secretariat adds architectural consultant positions to this list of functions termed "strategic." By the very nature of their functions, architectural consultants can influence strategy, the technological orientations of projects and the acquisition of technology.

In a context of scarce resources and constantly evolving technology, the STI considers that the partial outsourcing of these strategic functions provides benefits. We agree that the expertise of third parties can be useful and that it is not always possible to perform all these functions in-house. Nevertheless, it is important for the STI to remain vigilant about the risks it could face in such a situation.

After determining its requirements, the STI created 35 skills profiles clustered into six groups for the purpose of issuing the call for tenders. As mentioned above, Group 6 was not given a mandate following the evaluation of the only bid received.

Estimation of Costs

According to the statements made by the STI representatives, the hourly rates used to estimate costs corresponded to the average market rates in effect at the time of preparing the call for tenders.

As with the estimated hours, no documentation could be provided to us to support the hourly rates used in the cost estimates. Reliable and available information is needed when evaluating bids in order to make informed decisions. Statistics on the hourly market rates for IT professionals should have been found in the STI file supporting the cost estimates.

4.1.1.B. Recommendation

We recommend that the Service des technologies de l'information take the necessary steps to:

- properly document its requirements and cost estimates in its future calls for tenders for IT professional services;
- update the strategic functions that should be kept in-house.

Business unit's response:

[TRANSLATION] This recommendation has already been partially applied in the new professional services call for tenders model for IT back-up resources, implemented in fall 2015.

- 1. The model proposes a call for tenders approach in several lots to better meet requirements. The current method for estimating costs, based on similar profiles of two comparable framework agreements (2008–2012 and 2013–2015) will be enhanced based on new calls for tenders. A knowledge base will be put in place to better estimate costs. **(Planned completion: June 2017)***
- 2. A comprehensive skills profile development process was initiated to align the types of positions required with market practices and baselines, help assess the new types of positions on the market and identify what types of resources are or will be vital in the short and medium terms. Strategic functions that should be kept in-house will be updated as part of the skills development plan. **(Planned completion: June 2017)***

4.1.2. Analysis of Options

4.1.2.A. Findings

According to the City's procurement policy guidelines: *[TRANSLATION]* "The determination of requirements must also consider the risks, constraints and unique characteristics of each acquisition project, and the possible options."² In this case, the possible options include hiring staff, training internal resources or using external resources. These options should be subjected to a comparative analysis to enable the municipal administration to make an informed decision.

The STI highly values the advantages of using external resources, such as the flexibility and ability to capitalize on specialized skills. Hiring staff and training its internal resources for certain resource profiles were only considered if positions were vacant. The STI assumed that the use of external resources was imposed on it due to successive workforce rationalization measures in effect at the City for several years. Moreover, the STI maintains that the non-competitive salaries offered by the City for this type of very specialized expertise causes problems when recruiting resources.

Despite these considerations, an analysis of options is incomplete if no formal comparison of each of them is made. We would have expected the STI to substantiate its decision to use external resources with a comparative analysis showing that this was the most beneficial option under the circumstances.

4.1.2.B. Recommendation

We recommend that the Service des technologies de l'information take the necessary steps to ensure, in future, that its decision to use external resources is substantiated beforehand by a comparative analysis of the options, taking into account the costs, timelines, risks and advantages of each option.

Business unit's response:

[TRANSLATION] The position on sourcing, adopted at the end of 2015, made it possible to put in place standardized mechanisms to monitor the market as well as to define a total cost of ownership analysis grid. This approach is at the pilot stage and will be deployed to all the business units of the Service des TI. **(Planned completion: December 2016)**

² Source: Procurement policy of the Ville de Montréal, adopted on October 27, 2011, Section 7.1 *[TRANSLATION]* "Requirement Planning and Determination."

4.1.3. Market Solicitation and Competitive Bidding

4.1.3.A. Findings

The purpose of market solicitation is to encourage competition between several businesses in order to obtain the desired service at the best possible price while complying with the regulatory framework.

Number of Compliant Bids

In May 2012, the authorities authorized the issuing of public call for tenders No. 12-11916, which was published in July. There were three addenda to this call for tenders. It should be noted that the second addendum resulted in substantial changes to the specifications, as well as changes to the detailed experience grid of the required resource profiles.

Of the 36 businesses that obtained the call for tenders documents, only 14 tendered a bid. Excluding Group 6³, 13 different firms tendered a bid, some for more than one group. In the end, the selection committee conducted a technical evaluation of 31 bids.

The follow-up done by the Service de l’approvisionnement shows that only 5 of the 22 firms that did not tender a bid returned the “Notice of Withdrawal” form. These firms mainly cited their inability to meet the requirements of the call for tenders or to guarantee the availability of resources for the full duration of the framework agreements.

Under these circumstances, we would have expected that additional steps would have been taken with the firms that did not return this form to better identify the reasons for these withdrawals and to make the necessary adjustments to future calls for tenders, where appropriate.

The results of the technical evaluation of the 31 bids received for the contracts awarded under this call for tenders are presented in Table 2.

³ We excluded Group 6 – Telecommunications Specialty from our analysis given that this market was not awarded a contract because the only bid received failed to achieve a passing score.

**Table 2 – Results of the Technical Evaluation
of the Bids Received**

Firm name / score obtained	Group 1	Group 2	Group 3	Group 4	Group 5	
1. Cofomo	71.5%	67.8%				
2. Systématix	73.8%	71.8%				
3. CGI	79.3%	77.4%	80.3%	78.5%		
4. Fujitsu	79.0%	78.5%		81.9%	80.6%	
5. Dessau					78.9%	
6. LGS	72.9%	75.9%				
7. Facilité	70.0%	65.5%	71.0%			
8. C.I.A.	69.3%	67.0%	66.0%	69.0%		
9. Groupe Conseil OSI	68.9%	63.3%	59.8%			
10. GFI Solutions d'affaires	64.5%	65.5%				
11. TechSolCom	54.1%	59.6%				
12. Telus		55.5%				
13. Pro2p				59.4%		
Compliant bids	6	4	2	2	2	16
Number of bids	10	11	4	4	2	31
% of compliant bids	60.0%	36.4%	50.0%	50.0%	100.0%	51.6%
Legend:						
Successful bidder's score						
Number of firms deemed compliant that attained a passing score of 70 points: 7						

The key findings of our analysis are as follows:

- Slightly more than 50% of the bids received obtained a score higher or equal to 70% and, accordingly, were deemed to be compliant;
- 7 of the 15 bids deemed to be non-compliant obtained a score that was close to the minimum threshold of 70%;
- Only 4 out of 11 (or 36.4%) bids tendered for Group 2 were deemed to be compliant;
- Few bidders tendered a bid for Groups 3, 4 or 5, and only 50% of these were deemed compliant for Groups 3 and 4. It should be noted that the value of the agreements for these two groups represents 50% of the total value of the agreements reached under this call for tenders.

According to the evaluation grid, the criteria pertaining to the firm's production capacity, experience and expertise, as well as the experience and expertise of its team, represent 80%

of the interim score. We found that smaller-sized firms scored lower on these criteria. It should be noted that the firms that were retained all have more than 100 employees. It is reasonable to assume that these criteria in fact favoured the largest firms to the detriment of the smallest.

The causes of the rejected bids' non-compliance were not analyzed and documented in the call for tenders file. We would have expected that this would have been done, in keeping with sound management principles and given the low rate of compliance of the bids received.

The low rate of response to the call for tenders, the explanations obtained from the notices of withdrawal, and the results of the technical evaluation of each bid suggest that the scale of the contracts is problematic and that this might have restricted competition.

In our opinion, the STI should look for solutions to encourage more firms to tender bids during future calls for tenders for professional services. For example, the grouping of profiles and the scope of the calls for tenders could be reviewed, or they could be adjusted so that there is more than one successful bidder per profile family group. By facilitating access by the smallest firms to City contracts, the STI ensures potential suppliers more equal opportunity while helping obtain the best price.

4.1.3.B. Recommendation

We recommend that the Service des technologies de l'information take the necessary steps to encourage greater competition during future calls for tenders for professional services.

Business unit's response:

[TRANSLATION] This recommendation has already been applied in the new professional services call for tenders model for IT back-up resources, used in fall 2015.

*The model proposes a call for tenders approach in several lots to encourage competition. It recommends that the market of potential suppliers in Québec be monitored and that the Service de l'approvisionnement send out a call for tenders issuance notice. It complies with the legislative and regulatory framework to which the City is subject. **(Completed)***

4.1.3.C. Recommendation

We recommend that the Service de l'approvisionnement, in conjunction with the Service des technologies de l'information:

- contact businesses that obtained the specifications and did not return a "Notice of Withdrawal" form to ascertain the reasons why they did not tender a bid;
- analyze the causes for rejecting bids at the end of their technical evaluation when the non-compliance rate exceeds a threshold deemed to be high;

with a view to making changes to future calls for tenders for IT professional services, where appropriate.

Business units' responses:

SERVICE DE L'APPROVISIONNEMENT

[TRANSLATION] Procurement agents compile the information on the Notice of Withdrawal from Bidding form. If they determine and are able to identify the suppliers who have not submitted this form duly filled out, they call them to ascertain the reasons for their withdrawal from bidding and enter these reasons in the GDD. Where appropriate, they enter, again in the GDD and the file, the actions to be taken for the next call for tenders.

The Service de l'approvisionnement will make sure to add to the current follow-up directory, a file that compiles the reasons why the bidders withdrew from the call for tenders process.

The Division des pratiques et contrôles team will carry out periodic sampling (on a quarterly basis) to ensure that the file containing the reasons for withdrawal is added to the directory in which call for tenders documents are kept. (Planned completion: June 2016)

Auditor General's comments:

We note that the action plan does not address the second component of our recommendation concerning the analysis of the causes for rejecting bids following their technical evaluation when the non-compliance rate exceeds a threshold deemed to be high.

Given the cut-off time for production of our annual report, we were unable to obtain the amended action plan. We will pursue our efforts to do so at a later date.

SERVICE DES TECHNOLOGIES DE L'INFORMATION

[TRANSLATION] The STI will follow the instructions to be issued by the Service de l'approvisionnement based on their action plan.

Excerpt from the action plan of the Service de l'approvisionnement for 4.1.3.C:

“Procurement agents compile the information on the **Notice of Withdrawal from Bidding** form. If they determine and are able to identify the suppliers who have not submitted this form duly filled out, they call them to ascertain the reasons for their withdrawal from bidding and enter these reasons in the GDD. Where appropriate, they enter, again in the GDD and file, the actions to be taken for the next call for tenders.

The Service de l'approvisionnement will make sure to add to the current follow-up directory a file that compiles the reasons why the bidders withdrew from the call for tenders process.

The Division des pratiques et contrôles team will carry out periodic sampling (on a quarterly basis) to ensure that the file containing the reasons for withdrawal is added to the directory in which call for tenders documents are kept.” **(Planned completion: does not apply to the Service des TI)**

Hourly Rates Submitted

Table 3 presents the difference between the amounts of the bid tendered by the successful bidder and those of the in-house estimate for each group.

Table 3 – Difference between the Successful Bid and the Internal Estimate

Firm	Successful bid	Internal estimate	Difference (\$)	Difference %
1. Cofomo	\$7,212,388	\$9,581,886	(\$2,369,498)	-24.7%
2. Systematix	\$8,039,960	\$8,897,042	(\$857,082)	-9.6%
3. CGI	\$2,460,833	\$2,726,327	(\$265,494)	-9.7%
4. DMR- Fujitsu	\$13,773,059	\$13,436,557	\$336,502	+2.5%
5. Dessau	\$948,164	\$1,131,871	(\$183,707)	-16.2%

In accordance with the *By-Law Concerning the Urban Agglomeration Standing Committee on the Examination of Contracts*, the executive committee entrusted the Committee with the examination of the bids tendered by the prospective successful bidders in Groups 1 and 4. This examination was to be conducted for Group 1 because the price submitted was 20% higher than the internal estimate, while for Group 4, the amount of the bid exceeded \$10M.

Following its questioning on the differences between the internal estimates and the prices submitted, as well as on the extent of the changes introduced by the second addendum, the Committee ruled that the call for tenders process was compliant. It should be noted that the decision-making summary mentions that the differences between the internal estimates and the prices submitted by Groups 1 and 5 are explained basically by hourly rates submitted below the average market rates.

Indeed, our analysis revealed major differences between the estimated hourly rates and those submitted not only by the successful bidder and by the bidders in this group, but also by those in the other groups. In some cases, we noted that the rates submitted by the successful bidder were disproportionate (see Table 4 below).

Table 4 – Comparison of the Hourly Rates of the Successful Bidder with the City’s Estimate and the Average Hourly Rate Submitted by all the Compliant Bidders (by profile)

	Difference successful bidder/estimate	Difference successful bidder/average
Group 1 – Project Management – Architecture – Security		
• Project manager	-38.4%	-22.2%
• Change management specialist	-39.8%	-27.2%
• Data architect	-23.9%	-6.8%
• Technology architect	-20.2%	-4.8%
• Application architect	-16.6%	0.3%
• Data storage architect	-20.2%	-8.5%
• Computer security specialist	36.6%	0.0%
Group 2 – System Development		
• Business analyst	0.4%	-6.2%
• Oracle system analyst	-16.9%	-11.5%
• Oracle analyst-programmer	-18.3%	-9.3%
• Database administrator	5.4%	3.7%
• System analyst	-16.0%	-13.6%
• Quality assurance analyst	-8.3%	-4.3%
• Object-oriented programmer analyst	-13.7%	-10.5%
• Relational database administrator	2.2%	3.4%
• Web application system analyst	-4.0%	-5.1%
• Web application programmer analyst	-11.5%	-7.1%
Group 3 – Specialized System Development		
• System administrator (Z/OS)	-8.3%	11.1%
• System analyst (Natural/Adabas/IDMS, Cobol, [...])	-14.9%	-6.3%
• Programmer analyst (Natural/Adabas/IDMS, Cobol, [...])	-0.8%	3.0%
• Notes administrator	-14.8%	-11.8%
• Notes developer	-3.5%	1.2%
Group 4 –Oracle ERP Integrated Solutions		
• Integrated solutions specialist	1.2%	2.0%
• Business and application integrated solutions architect	-3.9%	-10.0%
• Integrated solutions system analyst	6.1%	-4.8%
• Oracle E-business Suite technology architect	-7.3%	3.2%
• Oracle E-business Suite database administrator	-8.7%	3.0%
• Oracle E-business Suite technical analyst	-2.4%	0.3%
• Oracle E-business Suite programmer analyst	42.3%	-3.8%
• Oracle E-business Suite system analyst	41.1%	1.9%
• Oracle E-business Suite systems administrator	4.3%	-2.0%
Group 5 – Geomatics		
• Geomatics architect	-35.2%	-22.7%
• Geomatics system analyst	-13.9%	-6.8%
• Geomatics programmer analyst	21.3%	2.3%

It should be noted that there are provisions in the call for tenders documents to enable the City to protect itself in such a situation and to encourage a transparent process. Under subsections 23.2 and 9.6 of section 1 "Instructions to Bidders," the City may request additional information on the prices submitted to better understand the offer, or the City may reject a bid whose unit rate is disproportionate, i.e., when it is 20% higher or lower than the average unit rates submitted by all the bidders.

Accordingly, we would have expected the STI to properly document the reasons for these disparities to establish whether the bid tendered by the prospective successful bidder was unbalanced⁴, and to take appropriate measures. We were unable to find any documentary evidence to this effect.

In our opinion, it is important for the STI to display more caution when alarm signals indicate that a bid may be unbalanced, as in the case of the project manager's profile, for which the hourly rate was abnormally low. To begin with, questions should be asked about the accuracy of the estimated quantities. If, after scrutiny, the estimated quantities are considered to be representative of the requirements, it should be determined whether awarding the contract under these conditions will have repercussions for the future contract management process. The STI is exposing itself to an increased risk that the firm will fail to supply the profile corresponding to the contractual requirements or that it will be unable to fulfill its requests for resources. Furthermore, we noted that the real hours for the project manager's profile represented only 21% of the estimated hours. In this regard, the STI told us that the firm was only able to partially meet its requests related to this profile.

4.1.3.D. Recommendation

We recommend that the Service des technologies de l'information take the necessary steps, when evaluating future bids, to identify disproportionate hourly rates where these exist, to analyze their causes and to take the steps required under the circumstances.

Business unit's response:

[TRANSLATION] As part of implementing a knowledge base to estimate costs, a bid analysis and reporting procedure aimed at identifying variances will be put in place. (Planned completion: June 2017)

⁴ A tendered bid is considered to be unbalanced when a bidder submits an abnormally low price on an item it expects will have a lower consumption than forecasted, or vice versa.

Estimated Number of Hours and Actual Consumption

The following table presents the consumption of hours for each profile group/family compared with the number of hours forecasted in the specifications. The details of the hours consumed for Groups 3 and 5 were not presented due to their low relative significance.

Table 5 – Comparison between the Estimated Number of Hours and Actual Consumption (by profile)

	Contract hourly rates	Estimated hours 3 years	Actual hours 2.5 years	Difference between actual & estimated hours	Ratio of actual hours to estimated hours
Group 1 – Project Management – Architecture – Security					
· Project manager	\$85.00	10,290	2,146	(8,144)	21%
· Change management specialist	\$83.00	7,350	14,590	7,240	199%
· Data architect	\$105.00	9,922	–	(9,922)	0%
· Technology architect	\$110.00	9,922	3,033	(6,889)	31%
· Application architect	\$115.00	9,922	13,506	3,584	136%
· Data storage architect	\$110.00	9,922	–	(9,922)	0%
· Computer security specialist	\$115.00	3,675	–	(3,675)	0%
Total Group 1		61,003	33,275	(27,728)	55%
Group 2 – System Development					
· Business analyst	\$92.00	7,350	29,987	22,637	408%
· Oracle system analyst	\$81.00	8,820	6,732	(2,088)	76%
· Oracle programmer analyst	\$72.00	8,820	15,541	6,721	176%
· Database administrator	\$99.00	8,820	590	(8,230)	7%
· System analyst	\$77.00	8,820	3,218	(5,602)	36%
· Quality assurance analyst	\$84.00	6,615	179	(6,436)	3%
· Object-oriented programmer analyst	\$76.00	8,820	3,162	(5,658)	36%
· Relational database administrator	\$96.00	8,820	937	(7,883)	11%
· Web applications system analyst	\$88.00	8,085	238	(7,847)	3%
· Web applications programmer analyst	\$78.00	8,085	742	(7,343)	9%
Total Group 2		83,055	61,326	(21,729)	74%
Group 3 – Specialized Systems Development					
Total Group 3		25,725	2,406	(23,319)	9%
Group 4 – Oracle ERP Integrated Solutions					
· Integrated solutions specialist	\$139.50	13,230	9,964	(3,266)	75%
· Business and application integrated solutions architect	\$110.50	11,760	10,746	(1,014)	91%
· Integrated solutions system analyst	\$108.10	11,760	3,782	(7,978)	32%
· Oracle E-business Suite technology architect	\$127.90	11,760	9,275	(2,485)	79%
· E-business Suite database administrator	\$110.50	11,760	2,380	(9,380)	20%
· E-business Suite technical analyst	\$104.70	11,760	3,277	(8,483)	28%
· E-business Suite programmer analyst	\$87.20	11,760	–	(11,760)	0%
· E-business Suite system analyst	\$108.10	11,760	–	(11,760)	0%
· E-business systems administrator	\$104.70	11,760	277	(11,483)	2%
Total Group 4		107,310	39,701	(67,609)	37%
Group 5 – Geomatics					
Total Group 5		12,495	–	(12,495)	0%
Total of all groups		289,588	136,708	(152,880)	53%

Six months before the end of the agreements, scheduled to last 36 months, we found that less than 50% of the hours originally estimated in the specifications had been used. Moreover, we noted that several of the profiles provided under these agreements were not used at all.

In our opinion, this situation indicates poor requirement planning on the part of the STI which may have restricted competition. It is reasonable to assume that firms that did not tender a bid because they felt unable to meet the City's request could have done so if these requirements had been better planned.

The extent of the differences found between the forecasted hours and actual hours raises questions about the real ability of the STI to adequately plan its external resource requirements over a three-year span. Because there is no firm agreement on the part of the municipal administration regarding completion of the TCWP, the STI is particularly exposed to the risks of changes in the priorities of IT projects. As well, major deficiencies in IT governance⁵, such as the lack of strategic orientations for IT and of a master plan for the STI, are also an impediment to the proper planning of its requirements.

It is no doubt reasonable to expect that discrepancies will arise in planned requirements over a three-year period, but certainly not of the extent of those mentioned above. In our opinion, such a situation runs the risk of undermining the interest of potential firms in bidding on future calls for tenders by the STI, especially when the contract terms do not include any guarantee as to the minimum threshold of hours or price readjustment clauses in the event that the actual number of hours is lower or higher than a given percentage of anticipated number of hours.

This situation, combined with our findings regarding the "Choice of Contracting Method" and the "Resource Selection and Confirmation of the Mandate" in sections 4.1.4 and 4.2.2 of this report, leads us to question whether the framework agreements in their current form are the most appropriate solution under the circumstances.

4.1.3.E. Recommendation

We recommend that the Service des technologies de l'information review the relevance of the framework agreement formula currently used for professional services so as to more closely align its requirement planning with its actual needs and encourage more potential firms to tender bids for its future call for tenders.

⁵ 2014 Annual Report of the Auditor General of the Ville de Montréal, chapter 4.5 "Information Technology Governance."

Business unit's response:

[TRANSLATION] The analysis was done in summer 2015 and the best option to meet our back-up resource requirements for projects (other than major ones or those within a program) is the formula for framework agreements by lots, given the scarce number of specialized resources available within the Service des TI.

*Since fall 2015, calls for tenders for back-up resources by program or major IT projects have been issued (Bureau de demain, Gestion des actifs municipaux, Approvisionnement III). The market of potential suppliers in Québec has been monitored and the Service de l'approvisionnement has sent a call for tenders issuance notice to generate greater interest among potential firms. **(Completed)***

4.1.4. Choice of Contracting Method

4.1.4.A. Findings

The City chose compensation based on an hourly rate for its framework agreements for IT professional services. Using this type of agreement offers the advantage of reducing administrative delays since the process for awarding contracts does not have to be re-launched and approval from the authorities does not need to be obtained for each of the mandates entrusted. This is generally the preferred method of compensation when work planning is not specific.

Nevertheless, the choice of this contracting method results in firms assuming only a small share of the risks associated with completion of the mandates entrusted to them. In fact, external resources have no obligations regarding the quality of the deliverables or meeting the mandate's scheduled deadlines. Penalties for non-compliance are difficult to apply in such a contractual relationship. Ultimately, the firms' obligations can be summed up as providing resources according to the City's requests and agreed-upon hourly rates.

We understand that compensation based on an hourly rate allows for greater flexibility and that a fixed-price contract does not lend itself to all types of projects. However, given the scope of its projects and the experience it has acquired in this area, the STI should consider alternative solutions to transfer a greater share of the risks to the firms.

Allotment could be one possibility. This process makes it possible to maintain management over IT projects, segment them into various smaller-sized markets and better divide the risks associated with carrying out the contracts between the City and its suppliers. However, it requires solid planning of underlying tasks and deliverables.

4.1.4.B. Recommendation

We recommend that the Service des technologies de l'information, as a corollary to the previous recommendation, examine the relevance of making greater use of contracting methods under which firms would assume a greater share of the risks in carrying out professional services contracts.

Business unit's response:

[TRANSLATION] A new sourcing strategy was developed and implemented in 2015. It recommends various types of sourcing, including a model in which firms assume a greater share of responsibilities, e.g., professional integrator services for the Bureau de demain project. (Completed)

4.2. Administration of Framework Agreements

Following the awarding of framework agreements, the STI was to put in place sound management practices so that the agreements be used in accordance with the contractual terms and administrative frameworks.

4.2.1. Sharing of Roles and Responsibilities

4.2.1.A. Findings

The use of framework agreements requires the involvement of various internal stakeholders (project managers, project and portfolio controllers, Division Performance TI et sourcing [DPS] advisor) and external stakeholders (firms and consultants). Managing framework agreements thus requires that their roles and responsibilities be well understood and defined.

The *Guide d'encadrement administratif – Utilisation des ententes-cadres en ressources d'appoint informatiques* specifies the roles and responsibilities of stakeholders when using framework agreements for IT back-up resources.

Based on interviews and the examination of documents, our audit found that, in general, the roles and responsibilities of stakeholders were clearly defined, communicated and assumed.

4.2.2. External Resource Request Process

4.2.2.A. Findings

The mandate request process for an external resource under the framework agreement makes it possible for the STI to obtain the skills that meet its requirements and to control the use of funds provided for in these agreements. This process consists of the following steps: stating the requirement, analyzing compliance, selecting the resource and confirming the mandate.

Statement of Requirement and Compliance Analysis

Before resorting to framework agreements, it is important to check if internal resources are available. The STI has no time management and planning tool to quickly get an overall picture of its workforce assignments.

While the STI is preparing to integrate all workforce planning into the Microsoft Office Enterprise Project Management (EPM) tool, the absence of updated overall planning means that it is currently unable to ensure optimal use of its internal resources.

In our opinion, to ensure optimal use of the STI's resources, initiating a mandate request process for an external resource should be conditional on a prior check of the availability of internal resources.

According to the STI's "mandate request" process, external personnel should only be used on an exceptional basis during pre-project phases. This business practice is intrinsically a sound one. These phases include, in particular, the design and approval of the project plan and budget solution. We were astounded to find that several external resources filling strategic functions were involved during these phases.

These external resources even took part in preparing a business file and an information request to potential suppliers. Some of these resources will also be contributing shortly to preparing the resulting call for tenders. This situation is not without risks and requires diligence and close monitoring to prevent a conflict of interest.

For this reason, provisions were taken by the STI with the firm employing these resources to protect itself from this risk of a conflict of interest. These provisions, however, were not formally documented. Furthermore, it should be noted that these same resources did not sign a confidentiality agreement with the City even though they had access or had had access to sensitive and confidential information.

This type of situation places the City in a vulnerable position and can compromise the integrity of its future call for tenders process. In such cases, not only should a confidentiality agreement be signed but steps should also be taken to keep track of the persons and firms that took part in these pre-project phases.

The external resource mandate request is activated when a mandate form is filled out. This mandate form is an important element in the framework agreement management process because it serves to formalize the STI's expectations with regard to the desired profile, required qualifications, description of the mandate, deliverables, work schedule and forecasted hours.

Before being sent to the firm, the mandate form must undergo a compliance analysis. To be granted a notice of compliance, the request must meet a requirement set out in the project plan, the scope of the work required must correspond to the desired profile, and both the project budget and financial limitations of the agreement must allow the expense to be incurred.

We found that the description of the mandate was generally not filled out in a consistent manner. It often lacked clarity, had few deliverables and specific milestones, and was often limited to a list of tasks to be completed. Descriptions more or less repeated the terms used in Appendix A of the framework agreements to describe the activities of the desired profile, without establishing a link with the project.

Without a clear definition of activities and deliverables to support the description of the work to be done, it is difficult for the managers accountable for the mandate to ensure that the work was actually completed and that the services were provided in accordance with the parameters of the mandate. For this reason, special attention must be paid to the description of the mandate when analyzing compliance.

We also found that the current procedure makes no provision for the mandate forms to be signed by representatives of the STI and the firm, as well as the resource provided by the latter. It appears vital to us that the mandate forms be signed before work begins to formalize the agreement between the parties and to facilitate the resolution of possible disputes that could arise during completion of the mandate.

Finally, we found that eight external resources have been assigned full-time to the City's mandates since the entry into effect of the framework agreements in January 2013. One of these resources had even been assigned full-time for five years prior to January 2013.

This situation is contrary to the spirit of the framework agreements and the reason for approval by the authorities in that they are aimed at retaining back-up services. It is our opinion that the tasks performed by these external resources should have been entrusted to internal resources, both for cost reasons and the maintenance of expertise.

Resource Selection and Mandate Confirmation

It should be recalled that one of the evaluation criteria for bids, which counts for 20% of the interim mark, deals essentially with the competency and availability of the account manager and his or her team. Another criterion, this time dealing with the production capacity of the firm and counting for 30% of the interim mark, serves to evaluate, among other things, the proposed resources' compliance with the expertise being sought and the succession plan in place in the event that a resource assigned to the City mandate is no longer available.

We found that only 8 of the 346 resources proposed in the bids tendered by the successful bidders provided services to STI. In all other cases, the resources proposed in the bids were not those that appeared on the invoices we examined. Substituting resources is the norm rather than the exception. Furthermore, when a resource request is made, no parallel is drawn with the resources presented by the firm in its bid.

Aside from the succession plan mentioned above, the contractual provisions make no mention of the terms of the bidder's obligation to provide the staff designated in its bid or their replacement. This situation carries the risk that the firms replaced the persons proposed in their bid with less experienced resources during completion of the mandates. The STI may therefore not have received fair value for the services rendered in exchange for the dollars spent. In our opinion, it is important to mitigate these risks in the future by putting in place measures to ensure that, when a proposed resource is replaced by another, the latter meets the skills and expertise requirements in the agreement.

We also found several mandate forms in which the required qualifications were less than those stipulated for the profile defined in the framework agreement. In these cases, it is our opinion that the STI did not receive fair value for the services rendered in exchange for the dollars spent. It is important in future for the STI to ensure that the skills and experience indicated in the mandate file are equivalent to those stated in the bid evaluation criteria.

We also found that the profile of some of the resources that were selected failed to meet the requirements of the framework agreements, particularly in terms of the level of education or number of years required. Although not provided for in the contractual provisions, it would appear that the STI factored in academic equivalency—years of experience when considering

these cases. This is a recognized practice that should be taken into account when preparing future calls for tenders, at least in profiles other than those of exclusive professions.

Finally, we found that some profiles of the framework agreements were used for purposes other than those intended. The *Business Analyst* and *Project Manager* profiles were used to recruit resources that actually performed the duties of *Technician* and *PC*, respectively. This situation is unacceptable, and the STI should have concluded a contractual agreement separate from the framework agreements for these cases.

Confidentiality Agreement

The confidentiality agreement specifies the terms and conditions that must be met by the external resource that will have access to confidential information as part of his or her mandate. In its current form, the agreement does not address important aspects such as the duration of the obligation and the contractual link between the external resource and the firm. In addition, it only deals with possible legal sanctions. In our opinion, the current content of the confidentiality agreement should be reviewed to better protect the City from any risk of disclosure and use of privileged information obtained as part of the work carried out by external resources.

Under the provisions of the contract, the successful bidder's staff must sign a confidentiality clause regarding the handling of information obtained within the framework of the contract.⁶ We found, however, that this obligation had not been met in some of the mandates we analyzed. This situation represents a risk for the City and makes it more susceptible to leaks of confidential information.

⁶ In the case of resources assigned to public safety contracts, a background check is required and conducted by the SPVM.

4.2.2.B. Recommendation

We recommend that the Service des technologies de l'information take the necessary steps to improve the external resource request process so that:

- the initiation of the request is conditional on a prior check of the availability of its internal resources;
- the use of external resources that are called on to perform strategic functions is structured appropriately, more specifically those assigned on an exceptional basis to the pre-project phases;
- the mandate forms systematically specify the deliverables and activities to be completed in connection with the project, as well as the work schedule and forecasted hours, and that they be signed by the stakeholders;
- the resources proposed by the firm meet the requirements of the framework agreements in regard to skills and experience, more specifically the substitution of a resource proposed in their bid;
- the content of the confidentiality agreement is revised;
- the confidentiality agreement is signed by the external resources prior to their being assigned a mandate.

Business unit's response:

[TRANSLATION] Following the adoption of positions on portfolio management and sourcing, several BDP projects were started, including one dealing with capacity management and resource availability. Another project deals with project methodology and will cover management models and procedures, such as mandate forms. (Planned completion: June 2017)

Guidelines covering professional services and contractual practices for the life cycle of a project (including the pre-project phases) have been documented and are in the process of being deployed. They are being monitored and continually improved.

In 2015, the DPS was created to ensure independent monitoring of contracting practices at the Service des TI. It is currently putting in place supplier evaluation practices (following the adoption of Bill 8).

A review of the confidentiality agreement model is planned, in collaboration with the Service des affaires juridiques. (Planned completion: December 2016)

4.2.2.C. Recommendation

We recommend that the Service des technologies de l'information include provisions in its future calls for tenders for professional services outlining the obligations of the successful bidder with regard to the availability of the staff designated in its bid and their replacement.

Business unit's response:

[TRANSLATION] This recommendation has already been applied in the new professional services call for tenders model for IT back-up resources, used in fall 2015.

An elimination criterion was defined for the IT back-up resources call for tenders that covers all the requirements of the Service des TI, making it possible to validate the firm's past resource placement capacity. (Completed)

4.2.2.D. Recommendation

We recommend that the Service des technologies de l'information examine the relevance of including in its future calls for tenders for professional services an academic equivalency–years of experience form for the purposes of assessing the proposed resources.

Business unit's response:

[TRANSLATION] This recommendation has already been applied in the new professional services call for tenders model for IT back-up resources, used in fall 2015 in the bid evaluation grid. (Completed)

4.2.3. Cost and Schedule Control

4.2.3.A. Findings

Monitoring of completion of the mandate begins as soon as the resource is chosen by the STI. This includes several activities, such as the purchase request, commitment of funds, tracking of purchase orders, time entry and approval, billing, payment authorization and contract renewal, where appropriate.

Purchase Request and Order Form

Since the repatriation of the financial and procurement advisor positions to their respective departments in January 2014, a purchase request is prepared to set aside the required funds

based on the mandate. This responsibility was entrusted at the time to the portfolio PC for what should have been a temporary period.

At the time of our audit, however, the portfolio PC was still responsible for these requests, in addition to preparing budget transfers to the project. In our opinion, entrusting such responsibilities to the portfolio PC is not an appropriate use of his position. The time spent on these administrative tasks proportionally reduces his availability to exercise control of the projects.

Once approved by the STI manager, the information contained in the purchase request, along with the attached documents, is checked by the Service de l'approvisionnement, which then generates a purchase order. Before being released, the purchase order is reviewed by the Service des finances to ensure that it complies with the fund limitations of the framework agreement. To carry out this review, the Service des finances needs reliable information.

The file provided by the STI for this purpose does not faithfully reflect the updated balances of the purchase orders associated with each of the mandates related to the framework agreement. This situation is explained, on the one hand, by the failure to update the purchase order file and, on the other hand, by the lack of any monitoring that would enable the authorized amounts of these mandates to be reconciled with the corresponding billing. The DPS considers that the situation should be rectified once it is able to fill all its positions.

Given this context, it is our opinion that the intervention by the Service des finances is a futile exercise. These shortcomings prevent the STI from conducting proper financial monitoring of the framework agreements.

Time Entry and Approval

The EPM tool used by the STI should enable it to plan activities, manage resources and monitor the progress and costs associated with its projects. For each stage of a project, tasks and deliverables are assigned to resources.

Under subsection 11.1 of the specifications, external resources must record the time they spend on the tasks of the mandate entrusted to them by their project manager in the EPM. Each week, the latter must validate the hours that external resources have charged to the project, and the project leader must approve them so that an automated timesheet can be extracted from them. The timesheet must be signed by the external resource and the manager responsible for the project. The latter's signature serves as evidence of his or her approval of receipt of these services.

Some project teams prefer to use a manual timesheet rather than the one generated automatically by the system, given that some managers want details that do not appear on the automated timesheet. Using a manual timesheet, in our opinion, is unacceptable and entails a greater risk of error or falsification. If deemed appropriate, the configuration of the EPM should be reviewed to ensure that the automatically generated timesheet meets the needs of all users.

While using the automatically generated timesheet helps better manage these risks, we identified significant shortcomings in the EPM's capabilities, as well as in the project teams' different ways of working. In summary, the terms for delegating access can result in non-compliance with the separation of incompatible functions. Since digital tracking of the work assigned is only visible to some EPM users, the DPS, which is responsible for checking the billing, is not able to detect this situation. Furthermore, the authorized timesheets can be amended later due to the choice made by the STI when setting up the initial parameters in the EPM. Finally, the "Select All" function allows mass verification of all the times charges for a week for all the resources assigned to a project.

In our opinion, these shortcomings expose the STI to the risk that the timesheets do not faithfully represent the actual time worked by the external resources on the various mandates.

Billing and Payment Authorization

According to the contract terms, the firm must send a monthly invoice to the DPS for the hours worked by the external resources on the various mandates during the reference period. The billing must of course be substantiated by timesheets signed by the external resource and duly authorized by the designated STI representative.

Before authorizing payment of an invoice, the DPS ensures that it complies with the hourly rates and profiles, matches the number of hours billed with the timesheets, and then checks the calculations.

Our audit found no errors in the sample of invoices that we examined. However, we found no evidence that the invoices had been checked by the DPS. In our opinion, it is important for the DPS to maintain a record of these validations to confirm that the checkpoints have been effectively administered.

We did find, however, that several timesheets in our sample did not bear the signature of the designated STI representative. We also found more than 200 timesheets whose payment was authorized without the timesheet being signed by the external resource. In at least two

cases, we even found that the external resource had not signed any of his or her timesheets substantiating the invoices submitted in his or her name by the firm for the entire period of his or her assignment to the City. These situations obviously raise questions about the validity of the hours billed.

We also noted discrepancies between the number of hours billed overall for some external resources and the hours charged in the EPM. These discrepancies can be explained on one hand by the fact that the framework agreements were used to meet the requirements of a business unit other than the STI. The decision-making file, however, clearly stipulated that these agreements were intended for the exclusive use of the STI. As well, the resolutions of the City and agglomeration councils ratifying these agreements stipulate that *[TRANSLATION]* “their purpose is to support the completion of various STI projects.” Appropriations authorized by the authorities were thus used for purposes other than the one intended without any prior authorization or accountability.

It would also appear that, contrary to the contractual provisions and frameworks of the STI, some resources were not required to record their hours worked in the EPM during 2013 and 2014. Thus the number of hours billed for several resources was higher than the number of hours charged in the EPM. This situation amplifies the previously raised concern regarding the authenticity of the hours billed and calls into question the reliability of the data in the EPM to monitor projects. Even if justified, the reasons for these discrepancies should have led the STI to take immediate corrective action once detected and to properly document them.

Finally, under the contractual provisions, the firm's invoice must show how the consumption of hours was monitored as part of the mandate. This obligation was in fact reiterated to the firm during the start-up meeting. Yet none of the invoices we analyzed contained this information. It becomes difficult, therefore, to reconcile the increased consumption of hours with the forecast established when making the mandate request. As well, monitoring consumption on the mandate forms and invoices would facilitate controls should the mandate be renewed.

Mandate Renewal

Under the STI's frameworks, an external resource's mandate is renewed for one of the following situations:

- The period of the mandate spans two fiscal years;
- The initial mandate has been completed. The STI wishes to entrust subsequent tasks of the project to the same resource;

- The mandate is approved for a fixed period for budgetary management purposes (e.g., every four months).

The same steps as those in the mandate request process must be completed, with the exception of the resource selection step (statement of the requirement, compliance analysis and mandate confirmation).

We noted that some renewals had been authorized despite the absence of the required documents, such as the budget plan,. Moreover, in most of the cases we analyzed, the renewal was not sufficiently justified. The work description from the initial mandate request was often simply repeated. As well, the mandate form supporting the renewal made no mention of the status of the initial mandate regarding the work completed or compliance with timelines.

When renewing a mandate, the risk is that it serves as a pretext to cover up cost overruns in the initial planning or poor performance. If the cost overrun does not affect the overall cost of the project, the project manager has the leeway to revise the plan or to use the contingency funds provided for the project. The reasons for renewing a mandate must therefore be clearly documented to facilitate monitoring and accountability.

4.2.3.B. Recommendation

We recommend that the Service des technologies de l'information take the necessary steps to ensure that:

- **the financial and procurement tasks related to professional services that are currently assigned to the portfolio project controller be assumed from now on by the staff of the Division performance TI et sourcing;**
- **the purchase order tracking file be updated periodically and the authorized amounts for these orders be reconciled with the corresponding billing amounts;**
- **the timesheet automatically generated by the system be systematically used by all project teams and, if deemed appropriate, the configuration of the timesheet be reviewed to meet the needs of all users;**
- **the system's functionality configuration affecting the efficiency of the internal control for time entry and approval be reviewed;**
- **the billing of firms be substantiated with, among other things, timesheets duly signed by the external resource and authorized by the designated representative of the Service des technologies de l'information;**
- **contract renewals be adequately substantiated.**

Business unit's response:

[TRANSLATION] This activity began in 2015.

It is agreed that new mandate requests related to the awarding of new framework agreements will be made using a purchase request, followed by a purchase order, made out by the financial and material resources management agent assigned to the DPS or any other person designated to do so.

*A new format for monitoring framework agreements has in development since 2015. **(Planned completion: June 2016)***

A project to upgrade the current timesheet management system is being analyzed. A business analysis of several elements, such as electronic approval, generation of timesheets, links with project management and billing, is currently under way.

*These various elements will then be configured to comply with the recommendations regarding consultants' timesheets. **(Planned completion: September 2017)***

*Following the adoption of positions on portfolio management and sourcing, several BDP projects were started, including one dealing with capacity management and resource availability. Another project deals with project methodology and will cover management models and procedures, such as mandate forms. **(Planned completion: June 2017)***

4.2.4. Performance Evaluation of the Firm and External Resource

4.2.4.A. Findings

The contractual provisions, as well as the *Guide d'encadrement administratif – Utilisation des ententes-cadres en ressources d'appoint informatiques*, stipulate that quarterly meetings must be held with the firms.

We found, however, that there were fewer meetings held than stipulated and that minutes were not prepared for all of them. In our opinion, it is important to systematically produce minutes for all these meetings in order to communicate the items discussed and to ensure follow-up of the decisions made.

While the contractual terms do not provide for the performance evaluation of the firm and its resources, this kind of evaluation should nevertheless be done at regular intervals, whenever the objectives of each phase are met, and systematically at the end of each mandate.

We found that only one evaluation of a sample of external resources has been done since the start of the framework agreements, while none was ever done for the firms. Such evaluations should be carried out on a regular basis, and a register of these evaluations should be maintained to avoid having a resource who failed to meet expectations be assigned to another project. The register could also be useful in evaluating firms and external resources during a future call for tenders.

The contractual provisions also provide the City with the option of cancelling an external resource's mandate. This could happen if the mandated resource fails to meet the project manager's expectations and the latter decides to seek out the services of another resource to complete the mandate or simply terminate the mandate.

Since 2013, the STI has cancelled mandates on a few occasions due to unsatisfactory performance of services by the selected resources. Based on our audit, it is our opinion that the provisions set out for this purpose have been met.

4.2.4.B. Recommendation

We recommend that the Service des technologies de l'information ensure that scheduled management meetings with the firms are held and that minutes of these meetings are prepared.

Business unit's response:

[TRANSLATION] Depending on the scope of the agreement, a governance meeting will be held every 6 to 12 months as of the awarding of the contract. These meetings will be documented with minutes. (Planned completion: December 2016)

4.2.4.C. Recommendation

We recommend that the Service des technologies de l'information take the necessary steps to ensure that external resources and firms are periodically evaluated.

Business unit's response:

[TRANSLATION] In 2015, the DPS was created to ensure independent monitoring of contracting practices at the Service des TI. In 2016, it will put in place a firm evaluation method. (Planned completion: December 2016)

4.2.5. Accountability Mechanism for Framework Agreements

4.2.5.A. Findings

According to the *Guide d'encadrement administratif – Utilisation des ententes-cadres en ressources d'appoint informatiques*, a report must be submitted monthly to STI management. This report must present the consumption data of the framework agreements, in hours and costs by firm and profile.

We found, however, that this report was actually only produced on request. Furthermore, it is our opinion that the stipulated contents of the report only allow for monitoring of the financial progress of the agreements. The contents of the report should be modified to also provide information by project in order to assess the extent to which external resources are used and thus promote better risk management, especially in projects where the use of these resources is high. Finally, this report should be disseminated to the project steering committees, as well as the IT sectoral committee.

4.2.5.B. Recommendation

We recommend that the Service des technologies de l'information modify the accountability report for framework agreements to include information “by project” and to disseminate it monthly to the project steering committees and the IT sectoral committee, among others.

Business unit's response:

[TRANSLATION] The DPS will provide a monthly summary of expenses for each framework agreement. This summary will contain, among other things, data displayed by project. This summary will be sent to the director of the STI and the director of the BDP, who will communicate it to City management. (Planned completion: December 2016)

5. Conclusion

In light of our audit, we can conclude that, in general, the provisions of the *Cities and Towns Act* and the City's frameworks for awarding contracts were followed; however, we should stress that compliance with these provisions and frameworks does not mean that sound management principles regarding the acquisition process were applied.

We identified significant shortcomings in several stages of this process prior to the awarding of the contracts. In particular, we noted that:

- the requirement determination and analysis of alternatives were not sufficiently substantiated;
- market solicitation failed to achieve the objective of free and open competition;
- analysis of the bids was not done with the expected thoroughness;
- the chosen contractual method, based on an hourly rate, resulted in firms assuming only a small share of the risks associated with completing the mandates entrusted to them.

These shortcomings, combined with the significant differences found between the forecasted hours and actual hours worked raise questions about the relevance of the framework agreements in their current form. It is difficult for the Service des technologies de l'information (STI) to properly plan its external resource requirements over a three-year period given that there is no firm commitment on the part of the municipal administration regarding completion of the projects included in the Three-year capital works program (TCWP), and given the major shortcomings in information technology (IT) governance,⁷ such as the absence of strategic information technology (IT) orientations and a master plan for the STI. In addition, the reasons behind the low rate of response to the call for tenders and the results of the technical evaluation of the bids suggest that the scope of the framework agreements is problematic.

Accordingly, it is our opinion that the STI must review the current framework agreement formula with a view to better aligning its requirement planning with its actual needs, having firms assume a greater share of the risks associated with completing the mandates, and encouraging greater competition during future calls for tenders for professional services.

We also found very worrisome deficiencies in the administration of the framework agreements, in particular:

- Several external resources were used to fill strategic functions during the pre-project completion phases, even though the use of these resources in these phases must be exceptional according to the STI's frameworks. As well, these same resources did not sign a confidentiality agreement with the City, thus placing it in a vulnerable position in regard to the integrity of its future call for tenders process;
- The STI's requests for external resources, made through the mandate form, were often generic, not establishing any link with the project and not specifying deliverables and specific milestones, making it difficult to effectively monitor the work completed;
- Only 8 of the 346 resources proposed in the bids tendered by the successful bidders provided services to the STI. Moreover, the contractual provisions made no mention of

⁷ 2014 Annual Report of the Auditor General of the Ville de Montréal, chapter 4.5 "Information Technology Governance."

the terms of the successful bidder's obligation to provide the staff designated in its bid or their replacement. It is therefore highly plausible that the firms replaced the persons proposed in their bids with less experienced resources when completing the mandates. It should be noted in this regard that we identified several mandate forms in which the required qualifications were lower than those stipulated for the profile defined in the framework agreements;

- Internal control issues in the entry, approval, billing and payment authorization process for the external resources' time lead to the risk that the amounts billed do not faithfully represent the actual hours worked on the various mandates. Among these issues is the fact that several timesheets in our initial sample did not bear the approval of the designated STI representative, while more than 200 timesheets had been authorized by the latter without having been signed by the external resource. Despite the additional auditing that we did following this finding, we were unable to conclude that billing by these firms did not contain hours that were not factual;
- Only one evaluation of a sample of external resources has been done since the start of the framework agreements, while no evaluation has been done for the firms;
- Finally, the planned monthly accountability reporting on the framework agreements was only done on request, and its contents only allowed for monitoring of the financial progress of the agreements. In addition, the accountability report was not disseminated to all the appropriate management levels.

Accordingly, we are of the opinion that the STI should take the necessary steps to improve controls surrounding the administration of its framework agreements for professional services.



**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, 2015

4.5

**Information and
Communications
Technology
Recovery
Management**



Table of Contents

1. Background.....	221
2. Purpose and Scope of the Audit.....	223
3. Main Findings.....	224
4. Audit Results.....	226
4.1. Information and Communications Technology Disaster Recovery Program Management Frameworks and Structure	226
4.2. Major Incident Management Structure	238
4.3. Risk and Impact Analysis and Information and Communications Technology Recovery Strategies	243
4.4. Information and Communications Technology Recovery Plans and Procedures.....	251
4.5. Information Technology Recovery Training.....	257
4.6. Information and Communications Technology Recovery Exercise Program	261
4.7. Updating Information and Communications Technology Recovery Documentation	268
5. Conclusion	274
6. Appendices	278
6.1. Description of Risk Levels	278
6.2. Description of Impact Levels.....	278
6.3. Description of Levels of Probability of Occurrence.....	278

List of Acronyms

BIA	business impact analysis	RAO	Répartition assistée par ordinateur
DEEU	Direction de l'épuration des eaux usées	SIM	Service de sécurité incendie de Montréal
DEP	Direction de l'eau potable	SIMON	Système intégré Montréal
HAZOP	hazard and operability study	SPVM	Service de Police de la Ville de Montréal
HP	Hewlett Packard Canada	STI	Service des technologies de l'information
ICT	information and communications technology		

4.5. Information and Communications Technology Recovery Management

1. Background

Organizations such as the Ville de Montréal (the City) are more vulnerable than ever, because natural, technological and social incidents occurring at the local or regional level now have major impacts on their normal operations. The City provides services to approximately 1.8 million people. Some of these services are provided by essential business units such as:

- **The Service des technologies de l'information (STI):** It is mandated to maintain and support the modernization of the City's key technological services;
- **The Service de l'eau:**
 - **Direction de l'épuration des eaux usées (DEEU):** It is mandated to manage sewage discharge and treatment at the wastewater treatment plant;
 - **Direction de l'eau potable (DEP):** Its mandate includes the production and distribution of drinking water to the population, organizations and industries of the Montreal agglomeration;
- **The Service de sécurité incendie de Montréal (SIM):** Its mandate is to make the City safer by protecting lives, property and the environment;
- **The Service de Police de la Ville de Montréal (SPVM):** Its mission is to protect the lives and property of citizens, to maintain the peace and ensure public safety, to prevent and fight crime and to enforce existing laws and regulations.

These essential business units have activities considered critical because they depend heavily on information and communications technology (ICT). It is crucially important that the City be prepared for any emergency situation that might cause a shutdown or major disruption of these activities.

ICT recovery management, an essential part of the process of business continuity management¹ that ensures continuity in the City's critical activities in the event of a disaster,

¹ Refer to section 4.9 of the 2014 Annual Report, "Business Continuity Management."

is a process of planning to ensure that ICT system and infrastructure operations essential to the City's critical activities are resumed.

ICT recovery management must be based on a program that includes the following components:

- **ICT disaster recovery program management frameworks and structure:**
The structure of the ICT disaster recovery program is based on a governance system (e.g., assignment of responsibilities, management and accountability mechanisms) that ensures ICT recovery can be managed effectively. It defines management frameworks necessary for the establishment of effective strategies, an ICT recovery culture and relevant, measurable and achievable objectives;
- **Major incident management structure:**
Business units responsible for ICT infrastructures and systems must establish a major incident management structure that handles ICT recovery responses from strategic and operational standpoints and ensures coordination and communication among stakeholders and interested parties;
- **Risk and impact analysis and ICT recovery strategies:**
 - Risk analysis establishes the components of ICT systems and infrastructures that are most at risk of causing a major power failure or a technological disaster. It is also used to identify and implement mitigation measures to reduce both the probability of their occurrence and their impacts;
 - A business impact analysis (BIA) is in itself a step in the business continuity management process and is mentioned here only because of its importance as a cornerstone in the ICT recovery process. Business impact analyses assess the impacts of a disaster and determine a department's critical activities and its tolerance to disruptions or data loss. They also identify the ICT systems and resources essential for maintaining these activities;
 - ICT recovery strategies correspond to the measures adopted to meet the ICT needs identified by the business unit as part of its impact analysis. In particular, they help ensure that the maximum acceptable period of disruption is not exceeded and they ensure the availability of ICT systems, resources, data and equipment required to meet these needs in the event of a disaster;
- **ICT recovery plans and procedures:**
ICT recovery documentation helps the City react appropriately to a crisis by providing all instructions needed to resume the operation of critical ICT systems and infrastructures;

- **ICT recovery training:**
All stakeholders involved in ICT recovery following a disaster have received appropriate training, in particular by participating in the establishment of recovery processes and by taking part in exercise drills to validate ICT recovery procedures;
- **ICT recovery exercise programs:**
The only way to adequately validate ICT recovery measures and procedures is to carry out test exercises regularly. These exercises are prepared on the basis of objectives to be achieved and are subject to a post-mortem to objectively assess the achievement of the objectives and the corrective measures taken to address the deficiencies observed;
- **Updating ICT recovery documentation:**
To ensure effectiveness and continuity, ICT recovery documentation is always updated in accordance with a formal process.

2. Purpose and Scope of the Audit

The purpose of our audit was to determine whether the City takes the necessary steps to address risks that a major disaster might affect its information and telecommunications systems and thereby ensure adequate ICT recovery.

This audit is the logical continuation of our previous business continuity management audit, conducted in 2014.²

For the present audit, we relied on the following international standards:

- ISO 27001 – Information security management systems;
- ISO 22301 – Business continuity management systems;
- ISO 31000 – Risk management.

Our audit was conducted with the participation of specialists recognized in the field of ICT recovery management.

As a follow-up to the results of our risk analysis, our audit focused on the following business units, which we considered critical:

- STI;
- Service de l'eau – DEEU;
- Service de l'eau – DEP;

² Refer to section 4.9 of the 2014 Annual Report: "Business Continuity Management."

- SIM;
- SPVM.

Our audit evaluated the following sections:

- Section 1 – ICT disaster recovery program management frameworks and structure;
- Section 2 – Major incident management structure;
- Section 3 – Risk and impact analysis and ICT recovery strategies;
- Section 4 – ICT recovery plans and procedures;
- Section 5 – ICT recovery training;
- Section 6 – ICT recovery exercise programs;
- Section 7 – Updating ICT recovery documentation.

Our audit did not cover business continuity management or emergency preparedness, which were the subjects of separate reports, in 2014 and 2007 respectively. Moreover, it should be stressed that a separate audit report on the urban agglomeration's voice radiocommunications system (SÉRAM) will be produced later and will include its own ICT recovery management.

It should be noted that this report is in no way an audit of the 9-1-1 Emergency Centre's compliance with provincial regulations governing 9-1-1 emergency centres.

The period covered by our audit was September 2015 to January 2016, and the results of our audit are based on the state of affairs prevailing on January 31, 2016. Consequently, changes or improvements that may have been made since then are not reflected in this report.

3. Main Findings

The main findings resulting from this audit are as follows:

- **ICT disaster recovery program management frameworks and structure**
There is no management framework for ICT recovery that sets out relevant, measurable and achievable objectives. Roles and operational responsibilities are not clearly defined. Staff are generally assigned to ICT recovery activities on an ad hoc basis. In most departments, ICT recovery is not part of the culture, with the exceptions of the SIM's computer-assisted dispatch system (Répartition assistée par ordinateur [RAO]), and the SPVM's 9-1-1 Emergency Centre;

- **Major incident management structure**

Adequate structures are in place for the RAO and the 9-1-1 Emergency Centre. In the cases of the STI and the Service de l'eau, a major incident management structure is in place but does not include certain aspects of ICT recovery;

- **Risk and impact analysis and ICT recovery strategies**

Since there is no formal process for conducting a risk and impact analysis, it is not possible for business units to identify critical systems and infrastructures properly or to justify acceptable recovery times or levels of data loss. These data are essential for developing and implementing effective ICT recovery strategies that meet their needs;

- **ICT recovery plans and procedures**

For the RAO and the 9-1-1 Emergency Centre, adequate plans and procedures are in place. For the Service de l'eau (DEEU), plans and procedures are being developed. Existing ICT recovery plans and procedures at other business units are inadequate;

- **ICT recovery training**

For the RAO and the 9-1-1 Emergency Centre, the service providers that manage these systems are responsible for training. For the other systems managed by the City, those responsible for implementing ICT recovery plans are not well informed or not properly trained on their roles and responsibilities or existing measures;

- **ICT recovery exercise programs**

There is no ICT recovery exercise program that can be used to validate recovery strategies, plans and procedures. The 9-1-1 Emergency Centre carries out adequate recurring exercises. Exercises are also carried out for the RAO, but one important scenario was omitted;

- **Updating ICT recovery documentation**

There is no formal process for updating ICT recovery documentation. However, coordination committees exist to ensure documentation is up to date for the RAO and the 9-1-1 Emergency Centre.

4. Audit Results

4.1. Information and Communications Technology Disaster Recovery Program Management Frameworks and Structure

An information and communications technology (ICT) disaster recovery program is effective if it has the minimum required components for establishing adequate strategies, a culture of ICT recovery and relevant, measurable and achievable objectives.

These minimum components are as follows:

- Management frameworks and organizational structure of the program;
- Resource allocation and operating budgets;
- A common approach and program tools and coordination.

Management Frameworks and Organizational Structure

Management frameworks are documents that determine the scope, requirements, roles and responsibilities of business units under an ICT disaster recovery program. These documents generally take the form of administrative policies and directives. Rather than establishing the composition or implementation of the program, they set the objectives that must be achieved.

The organizational structure of the program, made up of committees and stakeholders, is responsible for supervising, coordinating and implementing initiatives in a structured, aligned and effective way. This structure also ensures that the measures adopted meet ICT recovery objectives.

Resource Allocation and Operating Budgets

Setting up an ICT disaster recovery program cannot be a one-time exercise; it cannot be done on a project-by-project basis that is not be integrated into ongoing operations. It must be based on a recurring allocation of financial, material and human resources.

A Common Approach, Tools, and Municipal Coordination of the Program

To ensure the development and implementation of a coherent, effective ICT disaster recovery program, the City must have a step-by-step procedure (or approach) in place to properly frame the efforts of each business unit and ensure that ICT recovery objectives are achieved.

To facilitate development and implementation, tools will also be needed, such as:

- training on the desired approach;
- manuals or templates for each development phase;
- models or procedures to follow for performing exercises;
- tools for sharing and exchanging ideas (e.g., collaboration websites).

4.1.A. Findings – Service des technologies de l'information

During our audit, we noted the following:

- No formal management framework for ICT recovery has been developed by the Service des technologies de l'information (STI) and no procedure for using standardized tools is in place;
- There is no accountability reporting by the STI on ICT recovery to the Direction générale;
- The STI did not have an organizational structure, budget or resources allocated specifically to ICT recovery.

We consider the risk level to be **high** (see Table 1), because the STI faces the following potential risks:

- Without a management framework for ICT recovery, there is no centralized coordination, common approach, monitoring of activities or definition of recovery objectives. Business units do not have access to internal expertise;
- With no accountability reporting to the Direction générale, the City would not be able to determine its actual disaster preparedness;
- Without an organizational structure for ICT recovery or recurring financial and human resources, any process would lack cohesiveness and relevance to business units' ongoing operations. The ICT recovery objectives would probably not be achieved, putting their critical operations at risk in the event of a disaster;
- In the event of a technological disaster, there is no guarantee that the City's critical activities, which depend heavily on ICT systems and infrastructures, would be maintained.

Table 1 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	PROBABLE	Possible	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
MAJOR	Critical	HIGH	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of the impact levels and probability of occurrence levels is given in the appendix.

4.1.B. Recommendation

We recommend that the Service des technologies de l'information:

- Develop corporate frameworks for information and communications technology recovery along the same lines as those for the City's business continuity, and ensure that, at the very least, they provide for:
 - a definition of the objectives;
 - a detailed risk and impact analysis of disruptions;
 - recovery strategies for reducing these impacts;
 - recovery plans that describe in detail the activities that will ensure critical operations of information and communications technology systems and infrastructures are resumed within the required timeframes;
 - a regular review and exercise drill schedule;
- Develop a management structure to implement the information and communications technology recovery program, including:
 - assigning responsibility for information and communications technology recovery;
 - establishing specific objectives for each of its management teams and business units whose information technologies are managed by the Service des technologies de l'information;
 - establishing a coordinated process ensuring strategic directions for and communication, monitoring and accountability of the achievement of objectives;
 - documenting the roles and responsibilities of all program stakeholders;
 - appointing an information and communications technology recovery coordinator and implementing a process for coordinating the efforts of the various information and communications technology recovery stakeholders (business units, service providers);
- provide specific recurring budgets for information and communications technology recovery;
- make municipal tools (cook books) available to business units, such as:
 - the operational structure of the information and communications technology recovery program;
 - training sessions on the desired process;
 - manuals or templates for each development phase;
 - tools for sharing and exchanging ideas (such as collaboration websites).

Business unit's response:

[TRANSLATION] Corporate frameworks for information technology recovery will be created to provide guidelines, models and tools for defining all the elements needed to ensure IT recovery for each business activity.

The STI will assist departments in establishing their specific objectives, particularly in terms of maximum acceptable data loss (MADL) and the maximum acceptable period of disruption (MAPD).

*These frameworks will fall within the scope of an information technology services continuity program that is still in the development phase. **(Planned completion: April 2017)***

A person has been designated to handle ICT recovery issues and an information technology services continuity program is currently being developed.

This program, which will be aligned with business relations management, will help ensure that the recommendations of this report are implemented along the lines of the City's needs. It will cover accountability, training and documentation related to recovery plans.

The program management information will specify the objectives, management and organizational structure, relations with the proposed logistical support mission, communications strategies, roles and responsibilities.

The appointment of an ICT recovery coordinator will be based on an analysis of the roles and responsibilities needed to ensure continuity of activities.

*The critical activities of the four following departments will be covered first: the Service de l'eau, the Service de Police de la Ville de Montréal (SPVM), the Service des incendies and the STI. The other departments' needs will be addressed in the second phase of the information technology services continuity program. **(Planned completion: April 2017)***

*An initiative will be started to document the budget and resources needed for the information technology services continuity program. Recurring costs will be specified when the tests and simulations required by the recovery plan are defined. **(Planned completion: December 2016)***

*Deployment of a collaborative information-sharing tool that includes manuals, templates and all information that the City uses to ensure ICT continuity and recovery. **(Planned completion: March 2017)***

4.1.C. Findings – Service de l'eau

During our audit, we noted the following:

- At the Direction de l'eau potable (DEP), plant process control system ICTs are managed by its own staff. However, at the Direction de l'épuration des eaux usées (DEEU), staff supplied by the STI's Solutions gestion de l'eau division manage ICT;
- All of the so-called "administrative" ICT systems used by the Service de l'eau and the telecommunications links outside the plants are managed by the STI;

- The DEP and the DEEU did not have a management framework, organizational structure or budgets for ICT recovery;
- Responsibility for ICT recovery is not assigned to a member of the Service de l'eau management team and is not monitored systematically. Unofficial responsibility is given to the automation engineer with the most experience and knowledge of a system. The Service de l'eau is accountable for its own general disaster preparedness, and no specific accountability process exists for ICT recovery;
- ICT recovery is geared to the robustness of processes' automated control systems;
- The DEP and the DEEU each carried out an analysis to produce business continuity plans and ICT recovery plans for their in-plant activities. While there is no question that this work is useful, these two management teams used different methodologies that led to different results.

We consider the risk level to be **moderate** (see Table 2), because the Service de l'eau (DEP and DEEU) faces the following potential risks:

- Without a management framework and an organizational structure for ICT recovery or recurring financial and human resources, any process would lack cohesiveness and relevance to the ongoing operations of the Service de l'eau. The ICT recovery objectives would probably not be achieved, putting the DEEU's and the DEP's operations at risk in the event of a disaster;
- With no formal responsibility or centralized coordination within the Service de l'eau, a common approach cannot be shared, there is no monitoring of activities and the department's actual disaster preparedness is not known;
- Service recovery initiatives are not subjected to a systematic, standardized approach. This might result in inadequate procedures that fail to meet ICT recovery objectives. The efforts would be incomplete, inconsistent, uneven, erratic in their effectiveness and inconsistently applied;
- Plant process control systems might become less efficient.

Table 2 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	POSSIBLE	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
MODERATE	High	High	MODERATE	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.1.D. Recommendation

Subject to Recommendation 4.1.B., addressed to the Service des technologies de l'information, we recommend that the Service de l'eau (Direction de l'épuration des eaux usées and Direction de l'eau potable):

- Develop its management frameworks along the lines of those of the City's (Service des technologies de l'information), and ensure that, at the very least, they provide for:
 - a definition of the department's information and communications technology recovery objectives;
 - a detailed risk and impact analysis of disruptions;
 - an information and communications technology recovery strategy for reducing these impacts;
 - information and communications technology recovery plans;
 - a regular review and exercise drill schedule;
- Develop its management structure to implement the information and communications technology recovery program by:
 - making a member of its management team responsible for information and communications technology recovery;
 - establishing specific objectives for each management team;
 - developing a coordinated communications, monitoring and accountability process on the achievement of objectives;
 - documenting the roles and responsibilities of all stakeholders in the Service de l'eau;
 - establishing a process for monitoring activities;
- Provide for recurring financial and human resources for information technology recovery.

Business unit's response:

DIRECTION DE L'ÉPURATION DES EAUX USÉES

[TRANSLATION] The DEEU already has an IT recovery plan, currently being finalized, that was last updated in March 2015. This recovery plan contains the various headings listed here. (Planned completion: summer 2016 – awarding of contract)

André Thang Phan-Cao has been appointed.

Objectives are currently being established. (Planned completion: April 2016)

Development of the process is currently being finalized. (Planned completion: May 2016)

The documentation process is ongoing.

The needs related to the establishment of an activity monitoring process will be submitted to the DEEU. (Planned completion: September 2016)

The needs will be submitted to the DEEU. (Planned completion: May 2016)

DIRECTION DE L'EAU POTABLE

[TRANSLATION] The DEP has embarked on a process of auditing cyber resilience with Public Safety Canada. (Planned completion: March 2016 – Audit complete)

The results of this audit will be delivered to the DEP and will serve as input for next steps. (Planned completion: April 2016 – Audit results)

The DEP plans to award two professional services contracts for the purpose of developing:

- 1. an ICT risk analysis covering operational systems, telecommunications and office space. This risk analysis is based on standard NIST SP 800-82; (Planned completion: fall 2016 – Execution from 2017 to 2019. Implementation)*
- 2. an ICT resilience plan covering operational systems, telecommunications and office space. The resilience plan will be based on standards ISO 27002 and ISO 27005. This plan will address the issues raised. (Planned completion: fall 2016 – Drafting of technical specifications from 2017 to 2019 – Execution)*

The DEP will develop management frameworks based on the resilience plan recommendations. (Planned completion: 2017)

Responsibility for recovery issues is entrusted to the manager of the automation section.

An action plan that includes milestones, target dates and responsibilities will be developed. (Planned completion: from May 2016 and ongoing until 2019)

A chart of TI recovery roles and responsibilities will be developed. (Planned completion: June 2016)

Monitoring will take place regularly, every three months, and a biannual assessment will be presented to the BVG. (Planned completion: June 2016)

Enter sufficient funds in both the operating budget and the three-year capital expenditures program to cover needs related to the implementation of the resilience plan. (Planned completion: May 2016)

4.1.E. Findings – Service de sécurité incendie de Montréal

During our audit, we noted the following:

- The Service de sécurité incendie de Montréal (SIM) is responsible for its general disaster preparedness but not for managing the ICT infrastructures it uses, since these are managed by the STI. It therefore does not need a specific ICT recovery organizational structure, resources or budgets;
- In the case of the Répartition assistée par ordinateur (RAO), the STI delegates management to Hewlett Packard Canada (HP), which has submitted information and documents showing that the RAO and its infrastructures are covered by an ICT recovery plan that meets the SIM's needs;
- Resources are assigned to monitoring work affecting ICT infrastructures that are managed by the STI and HP.

Since we consider the risk level to be **low** (see Table 3), no recommendation is necessary.

Table 3 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	Possible	UNLIKELY	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
MINOR	Moderate	Moderate	Moderate	LOW	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.1.F. Findings – Service de Police de la Ville de Montréal

During our audit, we noted the following:

- 9-1-1 Emergency Centre systems are managed by external providers;
- The SPVM is responsible only for a few ICT infrastructures and systems used specifically for certain police activities, including the 9-1-1 Emergency Centre; The STI is responsible for the other ICT infrastructures and systems (the SPVM's centralized IBM environment, "administrative" networks and systems);
- ICT recovery is not assigned to a department manager and is not systematically monitored;
- The SPVM has no management frameworks, organizational structure, budget or resources allocated specifically to ICT recovery. As we noted during our business continuity management audit, the reason for this cited by the SPVM is that the systems that it manages do not require immediate recovery measures;
- The operations of the 9-1-1 Emergency Centre and of its ICT systems and infrastructures are governed by a province-wide framework for certification of 9-1-1 emergency centres. This framework calls for several structural and operational components that meet this component of the audit.

Since we consider the risk level to be **low** (see Table 4) for the activities of the 9-1-1 Emergency Centre, no recommendation is necessary.

Table 4 – Residual Risk Level – 9-1-1 Emergency Centre

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	Possible	UNLIKELY	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
MINOR	Moderate	Moderate	Moderate	LOW	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

For ICTs other than the 9-1-1 Emergency Centre, we consider the risk level to be **moderate** (see Table 5), because the SPVM faces the following potential risks:

- Without a management framework and organizational structure for ICT recovery or recurring financial and human resources, any process would lack cohesiveness and relevance to the SPVM's ongoing operations. The ICT recovery objectives would probably not be achieved, putting its operations at risk;

- With no formal responsibility or centralized coordination within the SPVM, a common approach cannot be shared, activities are not monitored, and actual disaster preparedness is not known;
- The department's recovery initiatives are not subjected to a systematic, standardized approach. This might result in inadequate processes that fail to meet ICT recovery objectives. The efforts would be incomplete, inconsistent, uneven, erratic in their effectiveness and inconsistently applied;
- In the event of a disaster, some SPVM activities would operate in backup mode.

Table 5 – Residual Risk Level — Other SPVM Activities

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	POSSIBLE	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
MODERATE	High	High	MODERATE	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.1.G. Recommendation

Subject to Recommendation 4.1.D., addressed to the Service des technologies de l'information, we recommend that the Service de Police de la Ville de Montréal:

- Develop its management frameworks along the same lines as the City's (Service des technologies de l'information) and ensure that, at the very least, they provide for:
 - a definition of the department's information and communications technology recovery objectives;
 - a detailed risk and impact analysis of disruptions;
 - an information and communications technology recovery strategy for reducing these impacts;
 - information and communications technology recovery plans;
 - a regular review and exercise drill schedule;
- Develop its management structure to implement the information and communications technology recovery program by:
 - making a member of its management team responsible for information and communications technology recovery;
 - establishing specific objectives for each of its management teams;
 - developing a coordinated communications, monitoring and accountability process for the achievement of objectives;
 - documenting the roles and responsibilities of all stakeholders in the Service de Police de la Ville de Montréal;
 - establishing a process for monitoring activities;
- Provide specific recurring budgets for information and communications technology recovery.

Business unit's response:

*[TRANSLATION] A management framework for ICT recovery will be developed for systems supported by the SPVM exclusively (other than its 9-1-1 Emergency Centre). This management framework will be based on those of the City and will include the definition of recovery objectives, the requirement for each system to undertake a detailed analysis of the risks and impacts of disruptions, documentation of an ICT recovery strategy for reducing impacts, the requirement for an ICT recovery plan that is revised at a predetermined frequency and regular recovery exercises. **(Planned completion: July 2016)***

A management structure for the implementation of the ICT recovery program will be documented. This structure will involve making a member of the SPVM management team responsible for ICT recovery, establishing specific objectives for each management team, developing a coordinated communications, monitoring and

accountability process for the achievement of objectives, documenting the roles and responsibilities of all SPVM stakeholders and establishing an activity monitoring process. (Planned completion: October 2016)

After management frameworks are developed for recovery and for a management structure, a recurring budget adapted to needs will be requested to support ICT recovery processes. (Planned completion: November 2016)

4.2. Major Incident Management Structure

When a technological disaster occurs, the City must react quickly and effectively to minimize the impacts of the disaster and resume operations quickly.

In order for a major incident management structure to be effective, members must have a clear understanding of their roles and responsibilities, their areas of concern, the tools to be used and the communications protocols that must be applied.

4.2.A. Findings – Service des technologies de l'information

During our audit, we noted that the STI did not have a comprehensive incident management structure for ICT recovery:

- An incident management process exists (power failures), but it is not associated with ICT recovery teams or plans;
- The STI's mobilization process provides for a way to contact resources if an incident occurs, but resources needed for ICT recovery are not identified;
- Roles and responsibilities for ICT recovery are not defined in either of the above two processes.

It should be mentioned that ICT recovery can be integrated into the incident management process and the mobilization plan.

We consider the risk level to be **high** (see Table 6), because the STI faces the following potential risks:

- Without a comprehensive major incident management structure, actions taken by the STI during a disaster would be improvised and might significantly increase ICT recovery time;
- Since the distribution of roles and responsibilities for ICT recovery is not clearly defined, the STI could not react promptly or ensure a coherent response to an emergency;
- ICT services might sustain a prolonged interruption, with significant consequences for the City's critical activities.

Table 6 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	PROBABLE	Possible	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
MAJOR	Critical	HIGH	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.2.B. Recommendation

We recommend that the Service des technologies de l'information adjust its major incident management structure so that it includes processes that ensure, at the time of a technological disaster:

- **mobilization of information and communications technology recovery resources;**
- **coordination of activities and responses;**
- **rapid, effective communication among the various stakeholders and interested parties.**

Business unit's response:

[TRANSLATION] A continuous improvement initiative will be established from May until December 2016 to review the major incident management process.

The new document on roles and responsibilities at the time of major incidents will be updated to reflect processes associated with major incidents and ICT recovery. It will be integrated into the information technology services continuity program.

The update will address the description of priorities and the correlations among high-priority incidents, major incidents and crisis management (with potential or confirmed recovery need).

Major incident (and crisis) management process activities will be reviewed to ensure responsibility is assigned and efforts coordinated at the time of a declared major incident or technological disaster. The communications strategy and the crisis shutdown procedure will be updated, and roles and responsibilities will be adjusted. (Planned completion: December 2016)

4.2.C. Findings – Service de l'eau

During our audit of the Service de l'eau, we noted the following:

- Concerning the DEEU:
 - There is a documented on-call system and an informal escalation process. The first and second response levels are provided by automation engineers at the management level, and the third level is provided by manufacturers of the equipment and systems involved. However, the resources needed for ICT recovery are not determined;
 - There is no process for managing or coordinating activities, and roles and responsibilities are not clearly established in the event of a disaster. The plant's everyday operational structure would be used, but it does not include all the elements needed to manage a disaster;
 - The DEEU is currently developing and documenting specific operational procedures for ICT recovery;

- Concerning the DEP:
 - There is a list of people to call and of support priorities for system disruptions that identifies the levels and groups of stakeholders needed for support, but the resources required for ICT recovery are not established;
 - These support levels are integrated into the plants' operational structure and would apply at the time of a disaster;
 - The response structure does not include all the elements needed to manage a disaster affecting ICTs.

We consider the risk level to be **moderate** (see Table 7), because the Service de l'eau (DEEU and DEP) faces the following potential risks:

- Without a comprehensive major incident management structure, actions taken by the Service de l'eau might increase the ICT recovery time in the event of a disaster;
- Since the distribution of roles and responsibilities for ICT recovery were not clearly defined, the department could not react promptly or ensure a coherent response to an emergency;
- Plant process control systems might become less efficient.

Table 7 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	Possible	UNLIKELY	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
MODERATE	High	High	Moderate	MODERATE	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.2.D. Recommendation

We recommend that the Service de l'eau adjust its operational management structure so that it includes processes that ensure, at the time of a technological disaster:

- mobilization of resources;
- coordination of activities and responses;
- rapid, effective communication among the various stakeholders and interested parties.

Business unit's response:

DIRECTION DE L'ÉPURATION DES EAUX USÉES

[TRANSLATION] Coordination with ICT remains to be included. (Planned completion: December 2016)

DIRECTION DE L'EAU POTABLE

[TRANSLATION] Review of incident response processes for control systems. (Planned completion: December 2016)

Insert an ICT section in the DEP emergency measures plan. (Planned completion: December 2017)

4.2.E. Findings – Service de sécurité incendie de Montréal

During our audit of the SIM, we noted that the service provider, HP, which is responsible for the management of RAO systems and infrastructures, has an adequate major incident management process in place.

Since we consider the risk level to be **low** (see Table 8), no recommendation is necessary.

Table 8 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	Possible	UNLIKELY	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
MINOR	Moderate	Moderate	Moderate	LOW	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.2.F. Findings – Service de Police de la Ville de Montréal

During our audit, we noted the following:

- With the exception of the 9-1-1 Emergency Centre, the SPVM is not responsible for ICT infrastructures and systems requiring immediate recovery;
- For the 9-1-1 Emergency Centre:
 - Management of critical ICT infrastructures and systems is entrusted to external providers;
 - The responsibilities of managers on duty at the SPVM are properly understood and the implementation of the ICT recovery strategy and its technological requirements is documented;
 - Coordination with service providers during major incidents is part of the operational procedures of the 9-1-1 Emergency Centre;
 - The department is not responsible for everyday management of ICT infrastructures and systems that are critical to 9-1-1 Emergency Centre operations.

Since we consider the risk level to be **low** (see Table 9), no recommendation is necessary.

Table 9 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	Possible	UNLIKELY	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
MINOR	Moderate	Moderate	Moderate	LOW	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.3. Risk and Impact Analysis and Information and Communications Technology Recovery Strategies

Business impact analysis (BIA) is an essential component of an effective ICT recovery process.

Risk analyses establish the components of ICT systems and infrastructures that are most at risk for causing a major power failure or technological disaster. They are also useful for identifying and implementing prevention or mitigation measures in order to reduce probabilities of occurrence and impacts.

Business units must notify their ICT service providers of their minimum service requirements, which must be clearly defined and based on their operational and ICT recovery needs. These requirements are based on the BIA procedure that establishes the maximum tolerances for ICT service disruption and data loss.

These are the requirements used for identifying critical ICT services and their tolerance to disruptions and data loss and for then developing ICT recovery strategies, service agreements and communications and alert protocols in the event of a disaster. ICT recovery will thus meet the actual needs identified and justified by business units.

4.3.A. Findings – Service des technologies de l'information

During our audit, we noted the following:

- As noted during our business continuity management audit,³ the City did not have a process for conducting a risk and BIA. Furthermore, the business units did not follow a formal municipal procedure to inform the STI of their clearly defined minimum service requirements based on their ICT recovery and operational needs;
- There is no formal process for conducting a risk and impact analysis at the STI. As a result, the STI has not determined its own priorities or its equipment and applications needs to ensure adequate ICT recovery;
- Risk and impact analyses were conducted only for the integrated management system (Système intégré Montréal [SIMON]), but only a draft version dating from 2008 exists;
- The STI provided us with a list of critical applications. However, we were unable to obtain comprehensive documentation justifying the conclusions of the process. This list was amended as a result of the questions we asked during our audit;
- With the exceptions of the centralized IBM environment and SIMON, the STI has not established ICT recovery strategies for its critical infrastructures and systems;

- Concerning the City's centralized IBM environment:
 - The recovery strategies for the centralized environment are based only on the STI's perceptions of needs or undocumented discussions with business units;
 - The recovery strategy documents and diagrams were incomplete and inadequate;
 - Service restoration of its systems is covered by an agreement with an external provider at a specialized recovery site;
 - A formal process for making backup copies is in place, but copies are checked completely only at the time of the annual recovery exercise.

We consider the risk level to be **critical** (see Table 10), because the STI faces the following potential risks:

- With no clear requirements specified by business units through a formal process, the STI cannot ensure that the ICT recovery strategies established meet its needs;
- Without a risk and impact analysis of its own operations, the STI cannot ensure that the ICT recovery strategies in place meet its needs;
- Performing only a single yearly validation of all backup copies in the centralized IBM environment increases the risk of having corrupted data.

³ Refer to section 4.9 of the 2014 Annual Report, "Business Continuity Management."

Table 10 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	HIGHLY PROBABLE	Probable	Possible	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
MAJOR	CRITICAL	High	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.3.B. Recommendation

We recommend that the Service des technologies de l'information:

- **Ask business units to provide clearly defined minimum service requirements based on their operational and information and communications technology recovery needs;**
- **Establish a process for conducting risk and impact analyses;**
- **Evaluate, establish and document recovery strategies that meet the needs expressed by business units and the Service des technologies de l'information for all information and communications technology platforms other than the centralized IBM environment;**
- **Review the recovery strategy diagrams and documents for the centralized environment, in particular, by specifying the recovery sequences for the applications concerned;**
- **Carry out more than one validation per year of all backup copies in the centralized IBM environment.**

Business unit's response:

[TRANSLATION] Assist the City's business units in documenting the operational needs of each of the business processes in question in order to determine their IT service continuity needs.

Evaluate, establish and document recovery strategies that meet the needs expressed by business units and the STI. (Planned completion: April 2017)

Review and integrate recovery documentation for the centralized environment. (Planned completion: February 2017)

*Develop a plan to test the operability of recovery on the centralized environment.
(Planned completion: March 2017)*

4.3.C. Findings – Service de l'eau

During our audit, we noted the following:

- There is no common ICT recovery approach within the Service de l'eau;
- Redundancy mechanisms are integrated into the technological architecture of the drinking water and water treatment plants process control systems and infrastructures. These are elements of ICT recovery strategies, and they reduce the risk of a disaster;
- Concerning the DEEU:
 - A BIA procedure performed for the plant identified the critical business operations and their tolerances to interruptions and data loss;
 - Some technological risks have been identified, which are single points of failure for which an action plan is being developed;
 - The ICT recovery strategies and measures in place are based on the redundancy and distribution of infrastructures in different locations, all at the plant site. Most of these measures are illustrated using diagrams and an initial draft version of the ICT recovery plan consolidates the strategies that were established, some of which must be finalized;
 - Concerning data backup, process control data are replicated on separate servers, and data on all other servers are backed up once a month;
- Concerning the DEP:
 - It used the hazard and operability study (HAZOP) at the Lachine plant, a pilot project that is still under way, and decided on some components of a BIA. The process:
 - Ø has not identified tolerances to disruptions or data loss for critical functions and their applications;
 - Ø was used as the basis for an initial working document on what the DEP expected from the services provided by its main ICT service provider, the STI;
 - Once the pilot project is completed, the DEP plans to repeat the procedure for all of its plants.

We consider the risk level to be **moderate** (see Table 11), because the Service de l'eau faces the following potential risks:

- Without a common approach to ICT recovery, the efforts required to coordinate results, pool data and tools or share all the information with the other management teams will be a limiting factor;

- Without a thorough risk and impact analysis process, it is possible that certain critical functions and certain single points of failure would not be detected and as a result would not be covered by adequate, documented ICT recovery strategies;
- At the time of a disaster, the Service de l'eau might not be able to identify all its critical functions within the established timelines.

Table 11 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	POSSIBLE	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
MINOR	Moderate	Moderate	MODERATE	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.3.D. Recommendation

We recommend that the Service de l'eau establish a risk and impact analysis process for the entire department.

For the Direction de l'épuration des eaux usées in particular, we recommend that it:

- Implement corrective measures to mitigate the single points of failure identified;
- Continue to develop, document and illustrate using diagrams information and communications technology recovery strategies;

Specifically for the Direction de l'eau potable, we recommend that it:

- Complete the Lachine plant pilot project and apply it to all its plants;
- Develop, document and illustrate using diagrams information and communications technology recovery strategies.

Business unit's response:

DIRECTION DE L'ÉPURATION DES EAUX USÉES

[TRANSLATION] The risk analysis process is already defined in the existing recovery plan.

In the process of being completed. (Planned completion: December 2016)

90% are already completed, the remaining 10% are under way. **(Planned completion: December 2016)**

DIRECTION DE L'EAU POTABLE

[TRANSLATION] Will be covered by the professional services contracts mentioned in 4.1.D.

The HAZOP pilot project in Lachine involving a functional analysis of control processes and systems is currently being finalized. **(Planned completion: September 2016)**

The procedure will be repeated for each of the other five plants and pumping stations. **(Planned completion: December 2018)**

Will be covered by the professional services contracts mentioned in 4.1.D.

4.3.E. Findings – Service de sécurité incendie de Montréal

During our audit, we noted the following:

- The SIM has not conducted a recent risk and impact analysis for the purpose of establishing business continuity plans or guiding the development of ICT recovery plans;
- For the RAO, a needs analysis identified tolerances to disruptions and data loss as part of the work of preparing specifications for this critical system;
- An adequate recovery strategy for the RAO is described in several operational records provided by Hewlett Packard Canada (HP) and the SIM;
- According to an architectural analysis of RAO systems, the link for transferring data to vehicles was identified as involving a risk of partial failure, since this link was not redundant. The function of this link is to transfer specific response data to field teams and deliver vehicle geolocation data to the RAO;
- As part of a major project for maintaining uninterruptible power supply (UPS) systems at the main site, an impact analysis specifically targeting this work was conducted. Some deficiencies were identified and steps were taken to mitigate or correct them.

We consider the risk level to be **high** (see Table 12), because the SIM faces the following potential risks:

- Without thorough, detailed impact analyses, it would not be possible to detect certain critical functions, with the exception of the RAO, and they would therefore not be covered by adequate, documented ICT recovery strategies. It would not be possible to identify these functions when a disaster occurs;
- Without the link for transferring data from the RAO to vehicles:
 - Certain information critical to firefighter response would not be transmitted, which might jeopardize their health and safety;

- Vehicles' geolocation data would not be transmitted to the RAO, which would reduce the effectiveness of the distribution process and might increase response time.

Table 12 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	POSSIBLE	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
MAJOR	Critical	High	HIGH	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.3.F. Recommendation

We recommend that the Service de sécurité incendie de Montréal:

- **Complete a business impact analysis procedure;**
- **Take steps to mitigate the point of failure for the transfer of data to vehicles.**

Business unit's response:

[TRANSLATION] The SIM will request a comprehensive, detailed impact analysis of the critical functions supporting response management systems in order to eliminate all obsolescence and associated risks to ensure redundancy and system continuity. (Planned completion: end of 2016)

This year the SIM will replace the obsolete "Data Radio" system with a much more robust, more reliable "LTE" system to ensure data transfer to vehicles. (Planned completion: end of 2017)

4.3.G. Findings – Service de Police de la Ville de Montréal

During our audit, we noted the following:

- The SPVM is responsible only for a few ICT infrastructures and systems used specifically for certain police activities. However:
 - These systems do not require immediate recovery measures and no ICT recovery measures exist;
 - The SPVM benefits from the services of other police forces to compensate for a prolonged technology failure;

- Systems operating in server environments are managed by the STI and are replicated at the recovery site;
- The SPVM has conducted risk analyses for the main sites and the recovery site of the 9-1-1 Emergency Centre. However, these analyses do not cover ICT risks;
- No impact analysis has been conducted to determine the criticality of other applications used by the department or their tolerances to interruptions and data loss;
- Even though the SVPM's centralized IBM environment does not require immediate recovery, its backup copies have never been subjected to a validation test involving a complete reloading of the operating environment (operating system, applications and data).

We consider the risk level to be **high** (see Table 13), because the SPVM faces the following potential risks:

- Without a thorough, detailed impact analysis, some systems needing to be recovered might not be identified and would as a result not be covered by adequate, documented ICT recovery strategies;
- Concerning the SVPM's centralized environment, since backup copies are not tested, there is no guarantee that this environment can be made operational again. With this environment, the SPVM runs the risks of prolonged application failures and data loss.

Table 13 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	POSSIBLE	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
MAJOR	Critical	High	HIGH	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.3.H. Recommendation

We recommend that the Service de Police de la Ville de Montréal:

- Complete an impact analysis in the event of systems failure;
- Evaluate, establish and document information and communications technology recovery strategies for systems under its responsibility that require recovery;
- Inform the appropriate information and communications technology service providers of the results of these analyses;
- Evaluate and monitor the information and communications technology recovery strategies developed and established by its service providers;
- Ask the Service des technologies de l'information to establish a strategy for testing backup copies that involves completely reloading and restarting the Service de Police de la Ville de Montréal's systems that operate on the IBM environment.

Business unit's response:

[TRANSLATION] A systems failure impact analysis will be documented. (Planned completion: February 2017)

ICT recovery strategies for systems that are under the SPVM's responsibility and require recovery will be evaluated, documented and established. (Planned completion: February 2017)

The results will be communicated to the appropriate ICT service providers. (Planned completion: May 2017)

The recovery strategies established by these service providers will then be evaluated and monitored. (Planned completion: May 2017)

The STI's acting Public Safety Director has been asked to establish a strategy for testing backup copies. (Planned completion: July 2017)

4.4. Information and Communications Technology Recovery Plans and Procedures

When a disaster strikes, the City must respond quickly in order to minimize its impacts and quickly resume operations. It is important that organizations destabilized by an incident be able to perform critical activities in an orderly fashion so that they can resume operations as quickly as possible.

As a way of facilitating decision-making under pressure, the ICT recovery plan must account for all the activities and procedures established in the organization to maintain or quickly resume ICT operations, systems and infrastructures.

Management tools that give clear details on “who does what, when, how and where” for specific situations help reduce uncertainty time due to any incident, as well as ensuring ICT recovery teams develop optimum response reflexes.

4.4.A. Findings – Service des technologies de l’information

During our audit of the STI, we noted the following:

- Even though the City’s centralized IBM environment is covered by an ICT recovery strategy, no procedure describes its implementation and the transfer of activities to the recovery site. The existing documentation does not provide an adequate guarantee that the STI will be able to switch its activities to the recovery site effectively;
- The only system covered by an ICT recovery plan containing the required elements is SIMON. However, since this is only a draft version dating from September 2015, the vast majority of ICT systems managed by the STI are not covered by an ICT recovery plan.

We consider the risk level to be **critical** (see Table 14), because the STI faces the following potential risks:

Without ICT recovery plans and procedures:

- The measures to be implemented for ICT recovery would be improvised; responses would not be coordinated and might interfere with each other;
- Critical systems would not be available for business units, which might not recover their critical operations within the required timelines;
- Essential public services that depend on ICTs might not be maintained, which could have serious consequences for public welfare.

Table 14 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	HIGHLY PROBABLE	Probable	Possible	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
MAJOR	CRITICAL	High	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.4.B. Recommendation

We recommend that the Service des technologies de l'information:

- **Develop recovery plans for all critical information and communications technology systems and infrastructures, including, the following components:**
 - alert processes and processes for activating plans;
 - processes for activating or accessing recovery sites;
 - a definition of the roles and responsibilities of each stakeholder or each recovery team;
 - a definition of information and communications technology recovery activities;
 - identification of critical resources (staff, equipment) needed to relocate essential operations;
 - a list of employees from the department and third parties who must participate in ICT recovery, including ways to contact them;
 - the development of operational procedures for information and communications technology recovery;
- **Finalize the recovery plan for the SIMON application.**

Business unit's response:

[TRANSLATION] Recovery plans will be developed in accordance with the City's business needs. The documentation of these plans will cover:

- *alert processes and processes for activating plans;*
- *processes for accessing recovery sites;*
- *definitions of stakeholders' roles and responsibilities;*
- *definitions of recovery activities, in order to recover or relocate essential operations;*
- *contact information for employees' and service providers that are to participate in the recovery;*
- *information technology recovery procedures. (Planned completion: April 2017)*

Finalize the recovery plan for the SIMON application and integrate it into the information technology service continuity program. (Planned completion: December 2016)

4.4.C. Findings – Service de l’eau

During our audit, we noted the following:

- Following its BIA, the DEEU is currently preparing a draft version of the ICT recovery plan for its plant process control systems and developing several operational and recovery procedures;
- There is no ICT recovery plan for the DEP’s drinking water production plants, but the diagrams illustrating redundant elements in their process control infrastructures are kept up to date;
- Neither of the two management teams has developed a management tool to coordinate activities pertaining to ICT recovery or monitoring responses in the event of a disaster.

We consider the risk level to be **moderate** (see Table 15), because the Service de l’eau faces the following potential risks:

- Without an ICT recovery plan, responses would not be coordinated, and they might interfere with each other or with redundant elements in process control systems;
- The plant process control systems might become less efficient.

Table 15 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	POSSIBLE	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
MINOR	Moderate	Moderate	MODERATE	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.4.D. Recommendation

We recommend that the Service de l'eau develop information and communications technology recovery plans for all its systems and critical operations, including:

- Alerting and mobilization processes;
- A definition of criteria for activating the recovery plans;
- Processes for activating or accessing recovery sites;
- A definition of the roles and responsibilities of each stakeholder or each recovery team;
- A definition of the information and communications technology recovery activities and recommendations;
- Identification of critical resources (staff, equipment) needed to relocate essential operations;
- A list of employees from the department and third parties who must participate in recovery activities, including ways to contact them;
- The development of operational procedures in the event of a disaster.

Business unit's response:

DIRECTION DE L'ÉPURATION DES EAUX USÉES

[TRANSLATION] Generally, the ICT recovery plan and the emergency measures plan meet all these recommendations. The plan will be included in the DEEU emergency plan. (Planned completion: September 2016)

DIRECTION DE L'EAU POTABLE

[TRANSLATION] Will be covered by the professional services contracts mentioned in 4.1.D. (Planned completion: September 2018 [first three elements])

The DEP also wishes to propose an ICT recovery centre infrastructure project. Essentially, the project would include a data recovery centre and an operations recovery centre:

1. Needs and feasibility study; **(Planned completion: March 2017)**
2. Plans and specifications; **(Planned completion: December 2017)**
3. Execution. **(Planned completion: March 2019)**

4.4.E. Findings – Service de sécurité incendie de Montréal

During our audit, we noted the following:

- The SIM is not responsible for the critical ICT infrastructures or systems on which it depends;
- The RAO is managed by HP, which provided several documents that meet ICT recovery requirements.

Since we consider the risk level to be **low** (see Table 16), no recommendation is necessary.

Table 16 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	Possible	UNLIKELY	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
MINOR	Moderate	Moderate	Moderate	LOW	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.4.F. Findings – Service de Police de la Ville de Montréal

During our audit, we noted the following:

- Concerning the 9-1-1 Emergency Centre:
 - The call-dispatch systems and call-handling systems are completely redundant, greatly reducing the risk of a total disruption;
 - The process for activating recovery measures is integrated in the staff's operational procedures;
 - These systems are managed by external service providers. No information on ICT recovery plans was provided by the SPVM. However, recovery infrastructures and systems were used a few times without any major problems;
- There is no ICT recovery plan for systems operated by the SPVM for certain police activities because they do not require immediate recovery measures. However, operations that use these systems could obtain the assistance of other police forces, which would reduce the impact of a major power failure on operations.

Since we consider the risk level to be **low** (see Table 17), no recommendation is necessary.

Table 17 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	Possible	UNLIKELY	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
MINOR	Moderate	Moderate	Moderate	LOW	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.5. Information Technology Recovery Training

An ICT recovery procedure cannot succeed without an education component. All employees should receive training on the response process, steps to take and procedures to follow in order to maximize the effectiveness of responses if a disaster occurs. Training promotes a common understanding of the objectives and decision-making processes and ensures uniformity in the response methods used by the organization when an emergency situation arises.

4.5.A. Findings – Service des technologies de l’information

Since there is no ICT disaster recovery program, the STI has not developed a training and awareness program for its staff.

We consider the risk level to be **high** (see Table 18), because the STI faces the following potential risks:

- Without a training and awareness program, staff members who need to respond during disruptions in operations would not be prepared to take action. Their responses would be improvised and largely ineffective. The department would probably not be able to identify critical ICT infrastructures and systems that affect both its clients’ and its own critical functions. Essential public services might not be maintained.

Table 18 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	POSSIBLE	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
MAJOR	Critical	High	HIGH	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.5.B. Recommendation

We recommend that the Service des technologies de l'information:

- **Integrate a training program dedicated to information and communications technology recovery into existing training programs. This program must include:**
 - **identification of the target audience;**
 - **training objectives;**
 - **type of training or awareness activity;**
 - **frequency of activities;**
- **Establish a process for evaluating the results of the training program.**

Business unit's response:

[TRANSLATION] Documentation on training, including the definition of training programs adapted for target audiences, a training schedule and a continuous training plan will be available through the information technology services continuity program.

Training will be aligned with the STI's skills development plan so that outcomes can be measured and training programs adapted as needed. (Planned completion: April 2017)

4.5.C. Findings – Service de l'eau

In the absence of an ICT disaster recovery program, the Service de l'eau has not developed a training and awareness program for its staff.

It should be mentioned that in the interest of knowledge transfer, a planning process is under way for the replacement of staff eligible for retirement at the DEEU. At the DEP, training programs have been set up for in-plant staff, but none is adapted specifically for ICT staff.

We consider the risk level to be **moderate** (see Table 19), because the Service de l'eau faces the following potential risks:

- Without an awareness and training program, staff members who need to respond during service disruptions would not be prepared to take action. Their responses would be improvised and ineffective;
- Plant process control systems might become less efficient.

Table 19 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	POSSIBLE	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
MODERATE	High	High	MODERATE	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.5.D. Recommendation

We recommend that the Service de l'eau:

- **Set up an information and communications technology recovery training program. This program must include the following:**
 - **identification of the target audience;**
 - **training objectives;**
 - **type of training or awareness activity;**
 - **frequency of activities;**
- **Establish a process for evaluating the results of the training program.**

Business unit's response:

DIRECTION DE L'ÉPURATION DES EAUX USÉES

[TRANSLATION] A training program dedicated to ICT recovery remains to be developed. The budget is also to be provided. (Planned completion: December 2017)

A process for evaluating results remains to be developed. This budget is also to be provided. (Planned completion: December 2017)

DIRECTION DE L'EAU POTABLE

[TRANSLATION] The training program will follow the definition of the ICT resilience plan. (Planned completion: fall of 2018)

The evaluation process will be integrated into the training plan. Evaluation will follow training. (Planned completion: fall of 2018)

4.5.E. Findings – Service de sécurité incendie de Montréal

Since the SIM is not responsible for the infrastructures and systems on which it depends for its critical functions, it is not required to establish an ICT recovery training and awareness program for its staff.

Since we consider the risk level to be **low** (see Table 20), no recommendation is necessary.

Table 20 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	Possible	UNLIKELY	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
NEGLIGIBLE	Low	Low	Low	LOW	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.5.F. Findings – Service de Police de la Ville de Montréal

For 9-1-1 Emergency Centre systems, employees are provided with training that covers the use of technologies at both the main site and the recovery site. These features are included in the 9-1-1 Emergency Centre operational procedures.

Since the other systems falling under the responsibility of the SPVM do not require immediate recovery measures, it is not required to establish an ICT recovery training and awareness program for its staff.

Since we consider the risk level to be **low** (see Table 21), no recommendation is necessary.

Table 21 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	Possible	UNLIKELY	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
NEGLIGIBLE	Low	Low	Low	LOW	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.6. Information and Communications Technology Recovery Exercise Program

An organization’s effectiveness in reacting to an emergency situation or crisis will depend largely on the exercise programs that it establishes.

A program involves planning ICT recovery exercises over a period of several years. The planning process takes into account the training program, changes in recovery objectives and the general preparedness of the organization.

ICT recovery exercises give participants the opportunity to put theoretical learning into practice, become familiar with their roles and responsibilities and test the different systems and procedures. Getting procedures under way, making decisions quickly and communicating effectively become automatic reflexes. The response as a whole therefore becomes more efficient.

Exercises also play a key role in determining concrete improvements to make to correct existing deficiencies.

4.6.A. Findings – Service des technologies de l’information

Since the STI does not have an ICT disaster recovery program, it has not developed an exercise program. However:

- The only ICT recovery exercises concern the City’s centralized IBM environment, for which annual exercises are conducted to reinstall the infrastructure at the external provider’s recovery site;

- We think these exercises are too limited for us to be able to confirm that the STI will be able to transfer its centralized environment and its applications from its main site to the recovery site within the prescribed timelines. In fact:
 - Over the past three years, objectives have basically remained unchanged, with no changes made to their level of complexity following previous exercises;
 - Some documents provide only a broad indication of the objectives of the exercises and an observation of the situation that amounts to a note on whether the objectives have been achieved or not;
 - Users of business units are not involved in the tests;
 - Interdependence with other systems is not tested;
- There are no ICT recovery exercises for other technological platforms.

We consider the risk level to be **critical** (see Table 22), because the STI faces the following potential risks:

- If drill exercises for ICT recovery plans are not performed regularly as part of a structured program, the recovery process cannot be validated effectively;
- Without a structured, recurring procedure for carrying out exercises, strengths, weaknesses, deficiencies and possible solutions would not be identified or documented. This might affect people’s perception of actual disaster preparedness;
- The ICT systems and infrastructures on which the City’s critical activities depend might not be recovered in a timely manner, which would lead to a loss of public services.

Table 22 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	HIGHLY PROBABLE	Probable	Possible	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
MAJOR	CRITICAL	High	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.6.B. Recommendation

We recommend that the Service des technologies de l'information:

- Develop an exercise program for members of information and communications technology recovery response teams. This program must include:
 - the types of exercises required;
 - an exercise drill schedule;
 - a list of stakeholders required based on the type of exercise and the environment targeted;
 - the process for carrying out the exercises;
- Perform, on a regular basis, at least once a year, information and communications technology recovery exercises on all environments that support critical functions, including application and communication tests. Each exercise requires:
 - a planning document that includes:
 - Ø the disaster scenario;
 - Ø the scope of the exercise;
 - Ø the objectives of the exercise, in order of increasing complexity;
 - Ø the stakeholders involved;
 - Ø a communications plan;
 - an exercise assessment report;
- Develop an action plan to correct any deficiencies observed.

Business unit's response:

[TRANSLATION] Tests will be developed for each recovery plan. They will describe objectives, participants and responsibilities, testing and simulation scenarios and a schedule. (Planned completion: April 2017)

These recommendations will be integrated into the information technology service continuity program for recovery tests affecting several systems or more all-encompassing simulations.

All aspects will be covered in the exercise drills for each specific recovery plan. (Planned completion: June 2017)

4.6.C. Findings – Service de l'eau

In the absence of an ICT disaster recovery program, the Service de l'eau has not developed a recovery exercise program. However:

- The design of the process control systems integrates several levels of redundancy and continuous verification loops in the communication lines of their data and operations;
- Any incident is reported to operators and documented in operational reports;

- A few incident reports exist; the incidents covered by these reports are considered exercises by plant management teams. The formats of these reports vary according to the people writing them and the management team and does not provide for any formal process for following up on corrective measures taken;
- The maintenance activities for some equipment are also used to validate the operation of redundant equipment.

We consider the risk level to be **moderate** (see Table 23), because the Service de l'eau faces the following potential risks:

- If drill exercises for ICT recovery plans are not performed regularly or properly, the recovery plans or the strategies they document cannot be validated effectively;
- Stakeholders who do not have the opportunity to perform simulation exercises or other types of exercises would probably not be able to develop the necessary reflexes to respond effectively to destabilizing events;
- The plant process control systems might become less efficient.

Table 23 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	POSSIBLE	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
MODERATE	High	High	MODERATE	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.6.D. Recommendation

We recommend that the Service de l'eau:

- Develop an exercise program for members of information and communications technology recovery response teams. This program must include:
 - the types of exercises required;
 - an exercise drill schedule;
 - a list of stakeholders required based on the type of exercise and the environment targeted;
 - the process for carrying out the exercises;
- Perform, on a regular basis, at least once a year, information and communications technology recovery exercises on all environments that support critical functions, including application and communication tests. Each exercise requires:
 - a planning document that includes:
 - Ø the disaster scenario;
 - Ø the scope of the exercise;
 - Ø the objectives of the exercise, in order of increasing complexity;
 - Ø the stakeholders involved;
 - Ø a communications plan;
 - an exercise assessment report;
- Develop an action plan to correct any deficiencies observed.

Business unit's response:

DIRECTION DE L'ÉPURATION DES EAUX USÉES

[TRANSLATION] An exercise program remains to be developed. The budget is to be provided. (Planned completion: 2017)

Regular recovery exercises have yet to be established. Exercises have already been performed with no disruption of service. (Planned completion: 2017)

DIRECTION DE L'EAU POTABLE

[TRANSLATION] These features will be covered by the professional services contracts mentioned in 4.1.D. to follow up on actions outlined in 4.2.D. emergency measures plan. (Planned completion: fall of 2019)

An infrastructure project for an ICT testing and process monitoring environment will be proposed: (Planned completion: 2018)

1. Needs and feasibility study; (Planned completion: March 2017)
2. Plans and specifications; (Planned completion: October 2017)
3. Execution. (Planned completion: October 2018)

4.6.E. Findings – Service de sécurité incendie de Montréal

The SIM is not responsible for the infrastructures and systems on which it depends for its critical functions.

Concerning the RAO, however, we noted the following:

- Under the terms of its contract, the service provider is responsible for performing exercises, which consist of a series of checks performed when applications are updated or workstations are switched to the recovery site;
- No recovery exercise was performed to simulate a disaster involving a total loss of the main site’s infrastructures and systems;
- The recovery site is used frequently, but RAO’s production and recovery systems and infrastructures are always linked with each other.

We consider the risk level to be **high** (see Table 24), because the SIM faces the following potential risks:

- If drill exercises for the RAO recovery plan are not performed based on a scenario of a total loss of ICTs at the main site, it cannot be validated effectively;
- The availability of the RAO might be compromised.

Table 24 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	POSSIBLE	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
MAJOR	Critical	High	HIGH	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.6.F. Recommendation

We recommend that the Service de sécurité incendie de Montréal require that the service provider of the computer-assisted dispatch system (RAO) include a scenario of the total loss of infrastructures and systems at the main site in its exercise plan.

Business unit's response:

[TRANSLATION] The SIM will require the HP service provider to include in its exercise plan the scenario of a total loss of infrastructures and systems at the main site supporting the RAO system. (Planned completion: fall of 2016)

In April–May 2016 we plan to carry out an exercise simulating a total failure of power for communications system infrastructures and the RAO for the purpose of replacing the new power generation system (UPS) at its headquarters. (Planned completion: May 2016)

4.6.G. Findings – Service de Police de la Ville de Montréal

During our audit, we noted the following:

- Concerning the 9-1-1 Emergency Centre:
 - Regular systems recovery exercises are performed. A register of the use of the 9-1-1 recovery centre is kept;
 - Formal exercises consisting of toggling between the primary and secondary servers and between sites are performed on the dispatching system;
- Concerning ICT infrastructures and systems used specifically for certain police activities for which the SPVM is responsible, when backup copies exist, they are not restored in their entirety to validate their integrity.

Since we consider the risk level to be **low** for the 9-1-1 Emergency Centre (see Table 25), no recommendation is necessary.

Table 25 – Risk Level – 9-1-1 Emergency Centre

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	Possible	UNLIKELY	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
NEGLIGEABLE	Low	Low	Low	LOW	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

We consider the risk level to be **moderate** for the other ICT systems used specifically for SPVM activities (see Table 26), because although these systems do not require immediate

ICT recovery, since their backup copies are not fully checked, it is possible that some data might be lost forever for the SPVM.

Table 26 – Risk Level – Other SPVM Activities

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	POSSIBLE	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
MODERATE	High	High	MODERATE	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.6.H. Recommendation

We recommend that the Service de Police de la Ville de Montréal implement a process for testing backup copies of its information and communications technology systems used specifically for certain police activities.

Business unit's response:

[TRANSLATION] We will implement a process for testing backup copies of the systems used specifically for certain police activities. (Planned completion: February 2017)

4.7. Updating Information and Communications Technology Recovery Documentation

Like all organizations, the City goes through changes over time, with evolving business processes, staff turnover and operations being redefined. The result of these changes is that some aspects of ICT recovery plans cease to be consistent with the reality of the organization.

Updating the components of the ICT disaster recovery program ensures that it is reliable and accurate. Timeframes are determined on the basis of the type of information to be kept up to date. This updating can also be done following an exercise.

4.7.A. Findings – Service des technologies de l’information

During our audit, we noted the following:

- Since there is no ICT disaster recovery program, no process for updating the documentation has been developed;
- Several documents obtained during our audit had not been updated recently.

We consider the risk level to be **critical for the STI** (see Table 27) because, with no process in place for updating ICT recovery documentation, the program would quickly become obsolete, significantly reducing the department’s ability to maintain its essential operations in the event of a disaster.

Table 27 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	HIGHLY PROBABLE	Probable	Possible	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
MAJOR	CRITICAL	High	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.7.B. Recommendation

We recommend that the Service des technologies de l’information establish a process for updating information and communications technology recovery documentation, including, the following activities:

- **Determining elements that need to be updated;**
- **Developing a regular review schedule;**
- **Informing various stakeholders of changes;**
- **Making changes to plans to take into account new learning acquired during exercises or when plans must be used during disruptions in operations;**
- **Aligning processes with those of incident and change management.**

Business unit’s response:

[TRANSLATION] A process for updating plans and the different features of the information technology service continuity program will be developed.

A procedure for monitoring required changes, including activities involving a review of various related processes, will be established. (Planned completion: April 2017)

4.7.C. Findings – Service de l’eau

During our audit, we noted that no process is in place for updating ICT recovery documentation. However, because of the industrial nature of the Service de l’eau’s activities, operational, technological or application changes are infrequent. It is nevertheless necessary to ensure their stability and reliability.

We consider the risk level to be **moderate** (see Table 28), because, since the Service de l’eau has no process for updating ICT recovery documentation, the program would become obsolete and would reduce the department’s ability to maintain its essential operations in the event of a disaster.

Table 28 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	POSSIBLE	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
MODERATE	High	High	MODERATE	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.7.D. Recommendation

We recommend that the Service de l’eau establish a process for updating information and communications technology recovery documentation that includes the following activities:

- **Determining the components that need to be updated;**
- **Developing a regular review schedule;**
- **Informing the different stakeholders of changes;**
- **Making changes to plans to take into account new learning acquired during exercises or when plans must be used during interruptions in operations;**
- **Aligning processes with those of incident and change management.**

Business unit's response:

DIRECTION DE L'ÉPURATION DES EAUX USÉES

*[TRANSLATION] A recovery plan update is planned.
It will follow the introduction of exercises. (Planned completion: 2018)
Incidents are entered in the Elogger application. (Completed)*

DIRECTION DE L'EAU POTABLE

*[TRANSLATION] This process will be implemented following submission of the ICT resilience plan deliverables and annual revision of ICT recovery documentation.
(Planned completion: 2019)*

*A process for auditing the implementation of the ICT resilience plan will be established.
(Planned completion: 2020)*

4.7.E. Findings – Service de sécurité incendie de Montréal

During our audit, we noted the following:

- The process for updating the RAO recovery documentation is the responsibility of the service provider;
- The documentation obtained from the service provider was up to date;
- Regular meetings are held with the service provider to hold discussions and ensure the continuity of the RAO.

Since we consider the risk level to be **low** (see Table 29), no recommendation is necessary.

Table 29 – Risk Level

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	Possible	UNLIKELY	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
MINOR	Moderate	Moderate	Moderate	LOW	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.7.F. Findings – Service de Police de la Ville de Montréal

During our audit, we noted the following:

- The process for updating ICT recovery documentation for the 9-1-1 Emergency Centre is the responsibility of service providers. However, the SPVM does not ensure that documents are updated;
- For ICT systems used specifically for certain police activities, which do not require immediate recovery measures, no process is in place for updating recovery documentation, because the documentation does not exist. However, at the very least there should be documentation pertaining to backup copies, especially regarding backup tests.

Even though we consider the risk level to be **low** (see Table 30) for the 9-1-1 Emergency Centre, if the SPVM does not ensure that ICT recovery documentation is up to date, there is a risk that it might not reflect current reality, and ICT recovery might become less effective.

Table 30 – Risk Level – 9-1-1 Emergency Centre

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	Possible	UNLIKELY	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
Moderate	High	High	Moderate	Moderate	Moderate
MINOR	Moderate	Moderate	Moderate	LOW	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.7.G. Recommendation

We recommend that the Service de Police de la Ville de Montréal check with its service providers to ensure that information and communications technology recovery documentation is up to date.

Business unit's response:

[TRANSLATION] We will ask our service providers to ensure that ICT recovery documentation is up to date and that a regular updating process is in place. (Planned completion: May 2017)

We consider the risk level to be **moderate** (see Table 31) for the other ICT systems used specifically for certain SPVM activities, because without updating the documentation on the process of testing backup copies of ICT systems used specifically for certain SPVM activities, these tests might become less effective and data might be lost.

Table 31 – Risk Level – Other SPVM Activities

Impact ^[a]	Probability of occurrence ^[a]				
	Highly probable	Probable	POSSIBLE	Unlikely	Improbable
Catastrophic	Critical	Critical	Critical	High	High
Major	Critical	High	High	High	Moderate
MODERATE	High	High	MODERATE	Moderate	Moderate
Minor	Moderate	Moderate	Moderate	Low	Low
Negligible	Low	Low	Low	Low	Low

^[a] A description of impact levels and probability of occurrence levels is given in the appendix.

4.7.H. Recommendation

Subject to the recommendation in section 4.6.H, we recommend that the Service de Police de la Ville de Montréal establish a process for updating documentation, particularly with regard to tests conducted on backup copies of the information and communications technology systems used specifically for certain police activities.

Business unit's response:

[TRANSLATION] A process for updating documentation will be established, particularly in the area of testing backup copies for our ICT systems, including those used specifically for certain police activities. (Planned completion: May 2017)

5. Conclusion

Overall, we may conclude that the City does not have an information and communications technology disaster recovery program (ICT) that would enable it to deal with the risks of major disasters affecting its information and telecommunications systems. There is no doubt that the City would resort to improvising its responses. As a result, it is likely that many ICT systems and infrastructures on which the City's critical activities depend would not be recovered in a timely manner.

Nevertheless, the computer-assisted dispatch system (Répartition assistée par ordinateur [RAO]) of the Service de sécurité incendie de Montréal (SIM) and the 9-1-1 Emergency Centre systems of the Service de Police de la Ville de Montréal (SPVM) have adequate ICT recovery measures in place.

The City has mandated the Service des technologies de l'information (STI) to maintain and support the modernization of the City's key technological services. The disaster recovery program is an essential part of sound ICT management.

Based on the results of our audit, we think that the STI is not fulfilling its role in ICT recovery. The STI has not:

- established a structured, common approach to ICT recovery management;
- made ICT recovery part of its major incident management process;
- conducted risk and impact analyses for all its activities;
- adequately documented ICT recovery strategies and plans;
- systematically performed ICT recovery exercises, except for the centralized IBM environment. In this case, the exercises performed are too limited to validate recovery processes effectively.

It should be noted that no formal process is in place for business units to transmit their minimum ICT recovery requirements to their service providers (internal or external).

Within the Service de l'eau, the Direction de l'eau potable (DEP) and the Direction de l'épuration des eaux usées (DEEU) have each undertaken an analysis process to produce business continuity plans and ICT recovery plans for their in-plant activities. While there is no question that this work is useful, these two management teams used different but complementary methodologies. They have no recovery plans or regular recovery exercise programs in place. However, because of the industrial nature of their operations, redundancy mechanisms are integrated into the technological architecture of the process control systems for drinking water and waste water treatment plants. These elements are part of ICT recovery strategies and reduce the risks of a disaster.

Table 32 shows the overall results of our audit based on the risks identified.

Table 32 – Overall Results for Each Risk Area

Risk area	Inherent risk ^[a]	Residual risk ^[b]				
		STI	Service de l'eau	SIM	SPVM	
					9-1-1	Other
Organizational structure of the information and communications technology disaster recovery program System recovery objectives are not relevant, measurable or achievable. Operational responsibilities and roles are not defined. Resources are lacking and staff assignment is temporary. No ICT recovery culture.	HIGH	HIGH	MODERATE	LOW	LOW	MODERATE
Major incident management structure No coordination or decision-making elements are in place at the time of an incident, emergency or disaster. This leads to a loss of efficiency, a risk of interference and poor communication among stakeholders.	CRITICAL	HIGH	MODERATE	LOW	LOW	LOW
Risk and impact analysis and information and communications technology recovery strategies Without a comprehensive, detailed risk impact analysis, several critical ICT systems are not identified and cannot be properly recovered. Essential public services are not maintained.	CRITICAL	CRITICAL	MODERATE	HIGH	HIGH	HIGH
Information and communications technology recovery plans and procedures The plans and procedures required to implement ICT recovery strategies are non-existent, with the result that the ICT systems required by business units' critical activities are not available, and essential public services are not maintained.	CRITICAL	CRITICAL	MODERATE	LOW	LOW	LOW
Information and communications technology recovery training Those responsible for implementing ICT recovery plans are poorly informed or receive no training on their roles and responsibilities. As a result, they will not be able to maintain critical systems in the event of a disaster.	HIGH	HIGH	MODERATE	LOW	LOW	LOW
Information and communications technology recovery exercise programs If drill exercises for ICT recovery plans are not performed regularly or adequately, the plans cannot be validated effectively. This loss of efficiency during the management of an emergency can jeopardize essential public services.	CRITICAL	CRITICAL	MODERATE	HIGH	LOW	MODERATE
Updating information and communications technology recovery documentation ICT recovery documentation and information are obsolete because they have not been updated. If a disaster occurs, critical systems will not be recovered in a timely manner. Essential public services will no longer be available.	CRITICAL	CRITICAL	MODERATE	LOW	LOW	MODERATE

^[a] Gross risk without taking monitoring mechanisms into account.

^[b] Exposure to risk following an evaluation of the monitoring mechanisms in place.

ICT recovery management is a key component of responsible ICT management. In this regard, the STI should implement the following constituent parts of an ICT disaster recovery program:

- specific management frameworks that will establish objectives, scope, requirements and roles and responsibilities. These management frameworks should apply to all business units that manage ICT infrastructures and systems;
- an accountability mechanism that is based on an understanding of the program objectives, goals and expectations;
- centralized, standardized tools and access to internal expertise.

Business units that manage ICTs should implement the measures required to achieve the ICT disaster recovery program objectives, specifically in the following areas:

- program structure;
- organization of major incident management;
- risk and impact analysis and ICT recovery strategies;
- ICT recovery plans and procedures;
- training, exercises and documentation updates.

Business units should inform the STI and, if applicable, any other service provider involved, of their ICT recovery needs.

We believe that if the City introduces an ICT disaster recovery program that is aligned with the business continuity program, it would have the necessary measures in place to deal with the risk of a major disaster affecting its information and telecommunications systems. This would reduce impacts on public services.

6. Appendices

6.1. Description of Risk Levels

Impact	Probability of occurrence				
	Highly probable	Probable	Possible	Unlikely	Improbable
Catastrophic	CRITICAL	CRITICAL	CRITICAL	HIGH	HIGH
Major	CRITICAL	HIGH	HIGH	HIGH	MODERATE
Moderate	HIGH	HIGH	MODERATE	MODERATE	MODERATE
Minor	MODERATE	MODERATE	MODERATE	LOW	LOW
Negligible	LOW	LOW	LOW	LOW	LOW

6.2. Description of Impact Levels

Impact Levels	Description
Catastrophic	Disastrous operational, financial and legal consequences, as well as disastrous consequences for the City's reputation following a disaster, resulting in, for example, a shutdown of a critical ICT system, with direct impacts on public health and safety.
Major	Major operational, financial and legal consequences and damage to the City's reputation.
Moderate	Impacts on the City's operations leading to moderate financial and legal consequences and damage to the City's reputation.
Minor	Minor impacts on the City's operations and business units. Loss of public confidence in the City unlikely.
Negligible	Very minor, or non-existent impacts on the City's operations. No public impact.

6.3. Description of Levels of Probability of Occurrence

Probability of occurrence	Description
Highly probable	Will occur in most circumstances.
Probable	Will probably occur in most circumstances.
Possible	Should occur at some point.
Unlikely	Should not occur.
Improbable	May occur only in exceptional circumstances.



**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, 2015

4.6

**Energy
Management**



Table of Contents

1. Background.....	283
2. Purpose and Scope of the Audit.....	284
3. Main Findings.....	284
4. Audit Results.....	285
4.1. Establishment of Energy Cost Reduction Objectives, Evaluation of Results and Accountability.....	286
4.2. Monitoring and Analyzing Energy Bills.....	296
5. Conclusion	306

List of Acronyms

DÉEU	Direction de l'épuration des eaux usées	m ²	square metre
DEP	Direction de l'eau potable	m ³	cubic metre
GHG	greenhouse gas	SIGI	Système intégré de gestion des immeubles
kW	kilowatt	SGPI	Service de la gestion et de la planification immobilière
kWh	kilowatt-hour		

4.6. Energy Management

1. Background

Improving the energy efficiency of municipal buildings, as well as wastewater treatment and drinking water production processes, is among the objectives set forth in the City's *Plan corporatif de Montréal en développement durable 2010-2015*.¹ This municipal plan is namely aimed at achieving a 30% reduction in greenhouse gas (GHG) emissions by 2020.

In addition to reducing GHG emissions, improving the energy efficiency of buildings and other facilities is also intended to reduce energy costs (e.g., electricity, natural gas).

In 2010, the inventory of the City's GHG emissions—carried out by the Direction de l'environnement of the Service des infrastructures, du transport et de l'environnement²—revealed that the energy consumption of buildings and wastewater treatment processes was among the activities with the highest levels of GHG emissions at 21% and 34% respectively.

Indeed, the City owns an important building inventory comprised of a little more than 1,300³ buildings that cover a total surface area of approximately 1.6 million square metres (m²). The City operates the third largest wastewater treatment plant in the world as well as six drinking water production plants⁴, including the two largest in Canada (Charles-J. Des Bailleurs and Atwater).

For 2015, the energy expenditures initially budgeted by the City totalled some \$87.3 million⁵ (\$81.2 million in 2014). This budget mainly covers electricity costs, but also includes natural gas and, to a lesser extent, fuel oil.

The environmental and budgetary repercussions are undeniable. That is why the City needs to implement measures to improve the energy efficiency of its buildings and other equipment and facilities. Reducing energy consumption will lead de facto to a reduction in GHG emissions⁶.

¹ This plan is inspired by and complementary to the *Plan de développement durable de la collectivité montréalaise 2010-2015*.

² These activities are now the responsibility of the Service de l'environnement reporting to the Direction générale adjointe au développement.

³ Source: Service de la gestion et de la planification immobilière (2015).

⁴ The six plants are: Atwater, Charles-J. Des Bailleurs, Dorval, Lachine, Pierrefonds and Pointe-Claire.

⁵ Excluding paramunicipal corporations.

⁶ Source: *Plan d'économie d'énergie 2013-2015*, Service de la concertation des arrondissements et des ressources matérielles (September 2012).

2. Purpose and Scope of the Audit

The purpose of this audit was to determine the goals set by the City in terms of reducing the energy consumption of municipal buildings as well as wastewater treatment and drinking water production facilities; to determine the actions taken to achieve these objectives; and to measure and report the results.

The bulk of our audit concerned 2014 and 2015; however, for certain aspects, data dating back to before these years were also taken into consideration.

The work involved the following business units:

- The Service de la gestion et de la planification immobilière (SGPI) – Division de la stratégie et du développement – Section énergie et environnement;
- The Service de l'eau – Direction de l'épuration des eaux usées (DÉEU) and Direction de l'eau potable (DEP);
- The following boroughs of former suburban municipalities⁷:
 - Anjou borough;
 - Lachine borough;
 - LaSalle borough;
 - Montréal-Nord borough;
 - Outremont borough;
 - Pierrefonds-Roxboro borough;
 - Saint-Laurent borough;
 - Saint-Léonard borough;
 - Verdun borough.

Our work consisted of conducting interviews with managers and employees, reviewing various documents and conducting surveys that we deemed appropriate to gather meaningful information.

3. Main Findings

Our audit revealed sectors where improvements should be made, namely:

- A formal and ongoing accountability process enabling the SGPI to periodically assess the degree of achievement of the targets set in terms of reducing the energy consumption of municipal buildings under its responsibility has yet to be implemented;

⁷ The L'Île-Bizard–Sainte-Geneviève borough was excluded from the scope of the audit as it was undergoing a major reorganization at the time our work began.

- Measurable objectives, action plans and accountability mechanisms with respect to the optimization of energy costs have not been set for the buildings and facilities of either the Service de l'eau or the boroughs of former suburban municipalities;
- No process has yet been developed to verify energy bills associated with, among other things, wastewater treatment or drinking water production facilities. In some cases, energy bills are neither critically reviewed nor monitored;
- Most (7 out of 9) of the audited boroughs of former suburban municipalities do not conduct critical reviews and do not monitor the energy bills associated with the municipal buildings for which they are responsible.

4. Audit Results

From the outset, we must point out that the City's energy monitoring responsibilities are divided between the municipal departments and the boroughs.

Indeed, the Section énergie et environnement, which reports to the Service de la gestion et de la planification immobilière (SGPI), manages energy bills (e.g., electricity, natural gas, fuel oil) associated with the buildings of the Service de Police de la Ville de Montréal, the Service de sécurité incendie de Montréal, most of⁸ the other central departments and nine boroughs of former⁹ Ville de Montréal. Moreover, although this activity is not covered by this audit, it should be noted that the boroughs remain responsible for managing traffic light and public lighting energy bills.

According to the information obtained from the representatives we interviewed, out of the total of 1,300 or so buildings that make up the City's building inventory, this management activity of the SGPI covers a little more than 750 buildings spanning a total surface area of close to 900,000 m². The total energy budget works out to \$22 million per year. This property inventory is comprised mainly of sports complexes, arenas, pools, municipal workshops, fire stations, neighbourhood police stations, libraries, administrative buildings and park lodges.

With respect to the wastewater treatment plant and the six drinking water production facilities, all aspects of the energy management of these buildings is the responsibility of the Service de l'eau rather than the SGPI. The annual energy budget¹⁰ hovers around \$14.4 million for

⁸ For example, the energy bills of the buildings occupied by the Service des grands parcs, du verdissage et du Mont-Royal are not managed by the SGPI but rather by the department itself.

⁹ These boroughs are: Ahuntsic-Cartierville, Côte-des-neiges–Our-Dame-de-Grâce, Plateau-Mont-Royal, Mercier–Hochelaga-Maisonneuve, Rosemont–La Petite-Patrie, Rivière-des-Prairies–Pointe-aux-Trembles, Sud-Ouest, Ville-Marie, and Villeray–Saint-Michel–Parc-Extension.

¹⁰ According to the original 2015 budget.

the wastewater treatment plant and \$16.9 million in the case of the drinking water production facilities.

The same applies to the boroughs of former suburban municipalities, which independently manage the energy bills of the buildings for which they are responsible, without any input from the SGPI. In the past years, the energy budget for the nine boroughs of former suburban municipalities covered by this audit totalled a little more than \$14.1 million.¹¹

This having been said, our audit first focussed on the search for objectives and performance indicators established by the different business units audited to promote energy cost reductions, thereby contributing to the City's greenhouse gas (GHG) emissions reductions target.

Secondly, although energy performance improvements depend on the integration of various activities such as the preventive maintenance of various building and facility components as well as the implementation of energy-saving projects, our audit focussed more specifically on a fundamental energy management activity, i.e., the implementation of mechanisms to verify and monitor the energy costs billed by energy providers.

4.1. Establishment of Energy Cost Reduction Objectives, Evaluation of Results and Accountability

4.1.1. Service de la gestion et de la planification immobilière

4.1.1.A. Background and Findings

In the wake of the adoption in April 2005¹² of its first *Plan stratégique de développement durable de la collectivité montréalaise (2005-2009)*, the City's executive committee approved the *Politique de développement durable pour les édifices de la Ville de Montréal* in June 2009.¹³

The policy establishes various objectives that are to be met, including in the areas of municipal building design, construction, renovation and operations. The policy sets the reduction target at 15% (with respect to a baseline year of 2007) for municipal buildings'

¹¹ Including traffic light and public lighting energy consumption, not included in the scope of this audit.

¹² Resolution CE05 0712.

¹³ Resolution CE09 1027.

energy consumption by 2012 to contribute to achieving the City's environmental targets for GHG emissions reductions.

At the same time as the policy was approved, a first three-year sustainable development action plan was developed¹⁴ for municipal buildings spanning the years 2009 to 2011. With respect to energy management, the action plan includes the reduction target of 15% for buildings' energy consumption, calls for the implementation of an energy savings plan from 2009 to 2013 and establishes the extent of long-term energy savings achieved at the end of the period as the applicable performance indicator.

At the conclusion of this plan, in 2011, we traced the existence of a summary of the results achieved at the end of each of the plan's three years. According to the information obtained from the persons interviewed, this summary was presented to the director of the Direction des stratégies et des transactions immobilières at the time, but it was never presented to the department's management team. Moreover, we noted that interim summaries were not produced annually to report on progress made with respect to the actions set forth in the plan. The summaries produced at the end of the three years of the plan reveal that the 15% reduction target set for buildings' energy consumption was only achieved by 50%.

For 2012, the people we interviewed pointed out that the actions set forth in the 2009–2011 action plan were pursued and rolled over into the 2013–2015 action plan. Indeed, in October 2012, the City's executive committee adopted the *Plan d'économie d'énergie 2013-2015*,¹⁵ which is consistent with the limits set forth in the second action plan, i.e., the *Plan d'action en développement durable pour les édifices de la Ville 2013-2014-2015*. The building energy consumption reduction target was then raised from 15% to 20%. The energy savings plan in question concerns only the buildings under the responsibility of the SGPI. It calls for actions articulated around four main activities that impact energy costs, namely:

- Energy management, including verifying and paying bills, monitoring and analyzing buildings' energy consumption, negotiating supply contracts and optimizing rates;
- Property management in terms of needs such as the type and number of buildings required and the evaluation of required facilities and spaces;
- The efficient operation of equipment with respect to conducting preventive maintenance programs, climatic standards or the upgrading of certain equipment;
- The energy efficiency of construction, renovation or expansion projects (e.g., LEED Gold and LEED Silver certifications) or equipment replacement.

¹⁴ Title: *Plan d'action en développement durable pour les édifices de la Ville de Montréal (2009-2010-2011)*.

¹⁵ Resolution CE12 1677.

At the time the energy savings plan was approved in October 2012, the forecasted objective at the end of the three-year plan (2013–2015) in terms of estimated energy savings was set at \$4.68 million per year, with buildings' GHG emissions reductions set at close to 5,000 tons of CO₂ per year.

At the time we finalized our audit in January 2016, summaries of the *Plan d'action en développement durable pour les édifices de la Ville 2013-2015* and the *Plan d'économie d'énergie 2013-2015* were not available. This situation is understandable since 2015 had just ended. However, we noted once again that there was no documented monitoring of the progress of planned actions at the end of each year of these plans, nor was there any formal accountability process at a predetermined frequency to inform the SGPI of the progress achieved with respect to the established targets.

According to the information obtained from the department manager responsible for implementing the *Plan d'économie d'énergie 2013-2015*, the only accountability exercised periodically concerns its annual performance evaluation, whereas a performance contract objective is associated with the implementation of the energy savings plan.

Moreover, although the *Plan d'économie d'énergie 2013-2015* called for accountability measures using dashboards to monitor the implementation of actions and savings, we noted, in light of the information obtained, that a single dashboard was produced in April 2015 at the request of the manager appointed at the head of the SGPI in December 2014. This dashboard mainly sets out energy savings forecasts per activity for 2013–2015 and as of December 31, 2016. It provides no indication of the extent of savings realized to date.

In short, we noted that the SGPI has set objectives, performance indicators and action plans with respect to the sustainable development and energy efficiency of the buildings for which it is responsible. However, in the absence of formally established periodic progress reports and accountability mechanisms, it is difficult to assess the extent to which established targets have been achieved and act when necessary if corrective measures are required to pursue planned activities. Furthermore, considering that the *Politique de développement durable pour les édifices de la Ville de Montréal* followed by the *Plan d'économie d'énergie 2013-2015* were both approved by the City's executive committee, it is reasonable to believe that formal accountability measures are periodically required.

4.1.1.B. Recommendation

We recommend that the Service de la gestion et de la planification immobilière implement a formal and ongoing accountability requiring the periodic production of progress reports, enabling it to assess the extent to which the established objectives have been achieved and orient the decision-making process accordingly.

Business unit's response:

[TRANSLATION] Update the chart showing annual cumulative energy savings monitoring every year (vs 2011). Also the consumption performance indicator in gigajoules per m².

Submit these results every year to the department manager, who in turn will submit them to the assistant City manager. (Planned completion: June 2016)

Update the project progress chart three times a year. This chart will be submitted to the SGPI management. (Planned completion: December 2016)

4.1.2. Service de l'eau

4.1.2.A. Background and Findings

In accordance with the *Plan corporatif de Montréal en développement durable 2010-2015* adopted by the urban agglomeration council¹⁶ in November 2010, all of the City's business units were individually responsible for taking steps to contribute to achieving the 30% GHG emissions reduction target by 2020. Achieving this target depends in part on monitoring and analyzing the energy consumption inherent in the units' activities.

The energy budget required to treat wastewater and drinking water is significant (a little more than \$31 million in 2015). For both the Direction de l'épuration des eaux usées (DÉEU) and the Direction de l'eau potable (DEP), wastewater treatment and drinking water production processes account for most of the energy expenditure.

During the interviews that were conducted, issues concerning energy consumption were elicited, as were various past ad hoc measures taken to optimize equipment operations and thus promote a reduction of energy costs. Among other things, beyond the fact that almost all buildings and underground tunnels located on the site of the wastewater treatment plant are heated and cooled using the heat recuperated from the sludge incineration process, other actions were also mentioned to this end (e.g., the replacement of fixed-speed pump motors

¹⁶ Resolution CG10 0413.

with variable-speed motors, the repair of backflow valves in the system, the disclosure of instructions regarding pump start-up procedures to prevent an overly high power demand).¹⁷

We also familiarized ourselves with the performance indicators established and used by the two departments listed below.

Direction de l'épuration des eaux usées

A table titled *Tableau de suivi des cibles* is filled out periodically to assess the plant manager's performance. This table is used to measure various aspects of plant operations. Namely, one of its targets concerns the average cost of wastewater treatment, using the energy cost added to the cost of chemicals per cubic metre (m³) of treated water as an indicator of success. The resulting ratio is compared to a scale of success with a gradation of target performance thresholds ("minimal," "satisfactory" and "excellent") which appear to have been established based on the plant's historical data.

Moreover, although the plant's energy costs are compiled and monitored on a historical basis, we observed that neither specific objectives to reduce these costs or optimize energy consumption nor any action plan were formally established to this end for department management accountability purposes.

Direction de l'eau potable

In addition to a monthly report per plant providing a host of operational data, a management dashboard is produced to provide a variety of information on the six plants' operations. With respect to energy consumption, we noted the existence of a performance indicator that measures the number of kilowatt-hours (kWh) per m³ of drinking water produced. The ratio obtained for each plant is assessed according to a target indicator with minimum and maximum thresholds. According to the information obtained from the head of plant operations, the data required to develop the dashboard started being compiled approximately two years ago. With respect to the target performance indicators, it appears they were established on the basis of historical data from the Atwater plant, considered as a relevant reference in terms of performance. However, as with the Direction des eaux usées, we were unable to retrace any energy cost reduction or optimization objective and no action plan has been developed to this end.

¹⁷ Amount of electricity required by the electrical installations and devices connected to Hydro-Québec's network.

A reality concerning these plants (wastewater and drinking water) cannot be ignored: they must operate 24 hours a day to protect public safety as well as the environment. Furthermore, although the underlying energy expenditure may initially seem impossible to compress any further, it is nevertheless important to analyze it and examine the operations inherent to the treatment processes to ultimately allow measures to be determined to reduce costs or optimize the energy required to operate the plants.

That being said, we are aware of the existence within the Service de l'eau of broad orientations and actions undertaken, as part of the *Stratégie montréalaise de l'eau 2011-2020*. Among other things, we noted the implementation of a major project to detect and repair water leaks in the system. This will certainly contribute to reducing the energy costs of both wastewater treatment and drinking water production facilities. Indeed, limiting the quantity of water lost by the system has a direct impact on the number of cubic meters of wastewater or drinking water that the various plants are required to process as well as on the fluctuation of the variable costs involved.

We were also informed that, given the (wastewater and drinking water) plant upgrading project aimed at ensuring certain plants' compliance with new government standards, electricity costs are expected to increase. Indeed, it appears that the addition of certain processes at the treatment facility will require more electricity.

Ultimately, in the interest of improving performance and contributing to the achievement of the City's GHG emissions reduction target, we believe that the Service de l'eau should implement an energy cost optimization process calling for the establishment of measurable objectives, the development of action plans and periodic accountability mechanisms.

4.1.2.B. Recommendation

We recommend that the Service de l'eau establish the measurable objectives, action plans and accountability mechanisms it deems appropriate to optimize the energy costs inherent to its activities and thus contribute to the achievement of the City's greenhouse gas emissions reduction target.

Business unit's response:

[TRANSLATION] Submit annual reports on implementation of the DÉEU's action plan to the DÉEU manager and the Service de l'eau manager. (Planned completion: annual)

Submit annual reports on implementation of the DEP's action plan to the DEP manager and the Service de l'eau manager. (Planned completion: annual)

4.1.3. Boroughs of former suburban municipalities

4.1.3.A. Background and Findings

As previously mentioned, the boroughs of former suburban municipalities manage their building inventory's energy consumption independently, without input from the SGPI. For 2015, the energy budget of the nine audited boroughs of former suburban municipalities totalled \$14.1 million, divided as follows: electricity – 80%, natural gas – 19%, and fuel oil – 1%.

Building conditions vary greatly from one borough to the next, and various factors influence their energy consumption including the age of buildings and their components (e.g., heating, ventilation and air conditioning systems), use and occupancy rate as well as preventive maintenance or renovations carried out over the years.

Upon completion of our visit of the boroughs and in light of the information gathered from the personnel we interviewed, we concluded that actions were sporadically undertaken in the past to optimize buildings' energy consumption (e.g., installing automatic systems to control lighting, heating and ventilation during unoccupied periods; gradually eliminating the use of fuel oil; installing energy-efficient lighting (LEDs); and replacing thermostats). In the case of most of the boroughs visited, however, it was pointed out that these actions had been taken on an as-needs basis in response to immediate priorities and according to available budgets or as part of major renovation work. Several of the people we interviewed mentioned that their borough's buildings were in a state of major disrepair, a situation that inevitably had an impact on energy costs.

Furthermore, although energy consumption is a preoccupation, we noted in the case of the nine boroughs that were audited that no measurable objectives have been formally established to reduce buildings' energy costs (e.g., achieve an X% reduction over a period of Y) and that no action plan exists to this end.

In fact, the only actions or major orientations that we identified are those associated with the City's *Plan corporatif de Montréal en développement durable 2010-2015*. This plan was adopted by the urban agglomeration council in November 2010 and is aimed, among other things, at achieving a 30% reduction in GHG emissions by 2020. Consequently, to achieve this target, each borough was to develop a local sustainable development plan, which was done. Furthermore, within the limits of the development of the City's *Plan de réduction des*

émissions de gaz à effet de serre corporatives 2013-2020,¹⁸ each borough was invited to take stock of its GHG emissions and commit to implementing certain GHG emissions reduction measures, including for buildings, by 2020. With respect to buildings' energy consumption, the following commitments, for example, were identified:

- Assign a manager the responsibility of keeping track of buildings' energy consumption;
- Implement a policy for the efficient management of buildings' energy consumption;
- Improve the air-tightness and insulation of building envelopes.

Consequently, we feel that the audited boroughs would also benefit from establishing objectives and action plans to promote both a reduction of the energy costs associated with their buildings and the achievement of the City's GHG emissions reduction target.

4.1.3.B. Recommendation

We recommend that the nine audited boroughs of former suburban municipalities take the necessary measures to establish the measurable objectives, action plans and accountability mechanisms they deem appropriate in order to optimize the energy costs of the buildings for which they are responsible, thereby contributing to the achievement of the City's greenhouse gas emissions reduction target.

Business units' responses:

ANJOU BOROUGH

[TRANSLATION] Install a computerized system to control the heating, ventilation and air conditioning.

Install energy efficient lighting.

Replace thermostats.

Maintain electromechanical equipment geared towards saving energy.

Optimal adjustment of combustion equipment.

Instrumentation and control (adjustment of systems during unoccupied periods).

Improve air-tightness and insulation in building envelopes.

Annual report and communication of results. (Planned completion: December 2016)

¹⁸ This plan stems from the Direction de l'environnement of the Service des infrastructures, du transport et de l'environnement that existed at the time.

LACHINE BOROUGH

[TRANSLATION] Assign responsibility for monitoring building energy consumption to the Direction des travaux publics. (Planned completion: April 2016)

Compile energy expenditures for buildings (electricity, fuel oil, natural gas and others) over the past three years to identify the largest sources of energy consumption. (Planned completion: September 2016)

Based on the results of the compilation, create a profile of the state of buildings, taking into account the extent of their energy consumption, with the objective of covering 10% of buildings per year. (Planned completion: September 2016)

Conduct an energy audit of five buildings identified as having a strong annual energy savings potential. (Planned completion: June 2017)

Carry out the most cost-efficient work based on availability of funds.

Report annually to the borough council on progress made.

LASALLE BOROUGH

[TRANSLATION] Complete the update of data on energy bills for buildings in the HELIOS software. (Planned completion: June 2016)

Evaluate potential energy savings scenarios based on past actions, projects in progress and budgets using simulations performed with the HELIOS software. (Planned completion: October 2016)

Produce an action plan with measurable objectives based on orientations approved by the borough's decision-making authorities. (Planned completion: November 2016)

Monitor energy consumption and produce an annual report. (Planned completion: December 2016)

MONTREAL-NORD BOROUGH

[TRANSLATION] Determine the energy consumption of all buildings in the borough. (Planned completion: July 2016)

Compare the energy consumption of these buildings with that of similar buildings on the City's territory. (Planned completion: August 2016)

Identify buildings with abnormally high energy consumption. (Planned completion: August 2016)

Propose corrective measures to improve the energy performance of the targeted buildings (insulation, air-tightness, replacing heating unit). (Planned completion: September 2016)

Adopt a budget for completing the work required. **(Planned completion: September 2016)**

Execute an initial phase of the required work in the buildings identified. **(Planned completion: October 2016)**

OUTREMONT BOROUGH

[TRANSLATION] Continue to bring equipment up to standards when it is replaced by the building maintenance team.

Take steps to update the 2012 study conducted by the Service des technologies de l'information on the lack of investment in buildings in the borough, paying particular attention to the condition of heating equipment.

Based on their current state and condition, identify buildings for which priority investments are likely to be justified, in view of the expected reduction of GHG emissions.

On the condition that funds are available in the three-year capital expenditures program, prioritize responses needed to improve the energy balance. **(Planned completion: December 2016)**

PIERREFONDS-ROXBORO BOROUGH

[TRANSLATION] Before we are in a position to set measurable objectives, we need to identify all our energy sources and determine the building components associated with each of these sources.

To do this, it will be necessary to establish a Building Master Plan identifying all components of all buildings in the borough. **(Planned completion: April 2017)**

Determine the potential energy savings for each building and for each component of these buildings. **(Planned completion: June 2017)**

As a follow-up to the previous point, set measurable objectives and prioritize them on the basis of their energy savings potential. **(Planned completion: June 2017)**

Establish a five-year capital expenditures program to upgrade certain components of our buildings in order to achieve the objectives set. **(Planned completion: 2017 to 2021)**

SAINT-LAURENT BOROUGH

[TRANSLATION] Together with its partners, the borough will implement a procedure for setting measurable objectives, action plans and accountability mechanisms based on its available resources in order to optimize energy costs associated with buildings under its responsibility and thereby help achieve the corporate GHG emissions reduction target. **(Planned completion: December 2016)**

The borough will pursue its efforts to achieve the 30% GHG emissions reduction target by 2020 relative to 2002 levels. (Planned completion: in progress)

SAINT-LÉONARD BOROUGH

[TRANSLATION] An action plan for 2016–2018 has been submitted to borough management. The target is the same as for the City: to reduce electricity and natural gas consumption by 5%. At the start of every financial year, as soon as energy consumption results are known, an update of this plan will be submitted to the borough director. (Planned completion: immediate)

VERDUN BOROUGH

[TRANSLATION] Continue developing our Building Master Plan. (Planned completion: November 2017)

Following the production of the Building Master Plan, produce investment scenarios prioritizing energy savings based on the data compiled. (Planned completion: March 2018)

Present the investments required to the borough's elected officials to determining the approach and the decision. (Planned completion: April 2018)

Achieve a 20% reduction over three years in energy consumption of buildings in which energy consumption investments were made. (Proposed reference year: 2017, following the implementation of HELIOS). (Planned completion: 2019 and thereafter)

Develop a formal, ongoing accountability process in order to regularly evaluate the extent to which the objectives set have been achieved. (Planned completion: June 2018)

4.2. Monitoring and Analyzing Energy Bills

Systematically verifying the costs billed by suppliers and monitoring the evolution of energy consumption over time constitute the managerial basis of improving the energy efficiency of buildings and facilities. Indeed, it is not possible to make informed decisions regarding the actions that need to be taken on a priority basis to reduce energy consumption without knowledge of these buildings' and facilities' situation with regard to energy. Monitoring energy consumption is one of the means that can be taken to develop this knowledge.

In order to be able to efficiently reduce energy costs, it is a priority to:

- Know the inventory of buildings and other facilities (e.g., the plant, the pump station, the reservoirs) as well as the energy sources they use. Specifically concerning electricity and

natural gas, it is important to have taken the inventory of existing meters and reconciled the data collected with the information provided on suppliers' invoices in order to validate that only the City's energy costs are being paid;

- Verify all invoices;
- Compile invoices by type of energy used to obtain the actual energy consumption portrait per building or facility and to be able to compare the evolution of costs over time (e.g., detection of overconsumption).

Verifying billed costs and monitoring energy consumption make it possible to:

- Detect suppliers' billing errors;
- Detect cases of overconsumption, identify causes and react promptly to implement the necessary corrective measures (e.g., malfunction of equipment);
- Validate the results of actions taken to reduce energy bills (e.g., a condenser bank installed, the heating system replaced, general lighting modernized);
- Obtain a source of relevant information to orient necessary corrective measures or priority renovation projects;
- Justify the required investments and account for them.

Thus, several billing aspects need to be examined, even more specifically with respect to Hydro-Québec bills, for which the monthly amount payable is calculated based on a number of parameters (e.g., applicable rate, contract power,¹⁹ actual power demand). Upon receipt of the energy bills, it is therefore important to verify the following information, among other things:

- The rates billed by suppliers to ensure that the correct rates are billed and that they are best adapted to present and future conditions (rates vary according to consumption levels);
- The billing period in days;
- The specific parameters used to calculate the amount payable, namely with respect to electricity.

In the case of the wastewater treatment plant and drinking water production facilities, it is that much more important to verify the energy bills given the specific features of the large-power rates (5,000 kilowatts [kW] or more) that apply to some of them, the large quantities of energy consumed and the resulting costs.

The following sections of this report therefore successively present our observations regarding how energy bills are analyzed and monitored by the SGPI, the Service de l'eau

¹⁹ Minimal power that is set forth by tariff regulation or contract and that the client is required to pay, whether said power is consumed or not.

and the boroughs of former suburban municipalities for the buildings and facilities for which they are responsible.

4.2.1. Service de la gestion et de la planification immobilière

4.2.1.A. Background and Findings

As previously mentioned, the Section énergie et environnement reporting to the Division de la stratégie et du développement of the SGPI is the administrative unit responsible for managing the energy consumption of the buildings of most central departments as well as the nine boroughs of the former Ville de Montréal. This accounts for a little more than 50%²⁰ of the City's building inventory.

The SGPI's energy management includes receiving, verifying and paying bills,²¹ analyzing applicable rates; monitoring and analyzing buildings' energy consumption (e.g., electricity, natural gas, fuel oil); negotiating energy supply contracts (e.g., natural gas); and managing financial assistance requests for new construction, expansion or major renovation projects.

These activities make it possible namely to:

- Generate ongoing savings for the City;
- Identify high energy consuming buildings;
- Establish targets and priorities for action.

As property manager, the SGPI has the inventory and characteristics (e.g., surface area, year of construction, sources of energy used) of the buildings making up the building inventory for which it is responsible as well as various computerized tools that it uses for energy management purposes.

On the one hand, the information obtained reveals that buildings' electrical or natural gas meters have historically been inventoried to mark their location, determine with accuracy what they power and corroborate the information provided on suppliers' bills. Since then, this has been done as new meters have been installed. Indeed, the people we interviewed within the SGPI mentioned that a same electrical meter can sometimes power more than one building. All of this information concerning each building is kept in a database within the *Système intégré de gestion des immeubles* (SIGI).

²⁰ A little more than 750 of the 1,300 buildings making up the City's building inventory.

²¹ According to the information obtained, electricity and natural gas bills represent 95% of the bills processed by the SGPI. The remaining 5% include fuel oil, propane gas, steam and others.

On the other hand, the HELIOS energy management software is used to verify the energy bills issued to the SGPI. Indeed, all energy bills are entered in the software beforehand. The HELIOS software is used first and foremost to reduce the energy costs of the buildings or processes under study. According to the information obtained, this software offers several functionalities. It is used namely to:

- Automate the verification of the various invoice parameters and alert the user when discrepancies are observed (e.g., an error concerning the rate or billing period, a low power factor²² leading to additional costs in the form of penalties charged by Hydro-Québec);
- Compile energy bill data and compare the historical evolution of costs;
- Conduct the most appropriate rate analysis based on consumption;
- Generate consumption reports and statistics;
- Conduct simulations (e.g., to assess the financial impact of a variation in rates).

Two office clerks are responsible for entering the bills into HELIOS, and a SGPI planning advisor reviews the results of the analyses carried out by HELIOS and attempts to determine the causes of any discrepancy observed. Once verified, the bills entered into HELIOS are forwarded to the SIGI for the purpose of populating the database of information used to monitor each building's energy consumption (e.g., the energy cost per square metre [m²]), to generate budgetary developments and to complete the underlying process to pay the bills.

Finally, we observed that the analysis of buildings' energy consumption was also monitored using computerized tools designed by the SGPI to gather information from the SIGI's database. A dashboard is used for each building to historically monitor actual consumption and compare it with forecasted consumption to detect potential cases of overconsumption based on preprogrammed parameters (e.g., a variation of more than 20%). Cases that are considered suspicious (e.g., an increased consumption of gas, increased kW) and need to be investigated to determine the cause and correct the problem are entered by the planning advisor in a file titled *Anomalies de surenergy consumption*. If applicable, these detected discrepancies are forwarded to the SGPI's technical team in charge of building maintenance. We reviewed the file used to monitor cases of overconsumption and found that it contains various pieces of information, including the identification of the building at cause, the nature and duration of the discrepancy observed, a historical monitoring record and—ultimately—the nature of corrective measures taken.

In short, in light of our audit, the energy monitoring work carried out by the SGPI appears adequate to us. Consequently, we have no specific recommendation to make in this regard.

²² Hydro-Québec's electrical service conditions call for a power factor of 90% (small- and medium-power customers) or 95% (large-power customers) which must be maintained to avoid billing surcharges.

4.2.2. Service de l'eau

4.2.2.A. Background and Findings

Direction de l'épuration des eaux usées

As previously stated, the energy budget required for wastewater treatment operations runs around \$14.4 million²³ per year. This budget is comprised mainly of electrical (79%) and natural gas (19%) purchases. The remaining energy expenditures (2%) are engaged to purchase fuel oil (used when Gaz Métropolitain cuts the supply of natural gas) and diesel fuel (used to power generators).

According to the information obtained from the people we interviewed, in addition to the treatment plant, the DÉEU is also responsible for managing the energy consumption of various other facilities that make up the wastewater collection network, including 90 pump stations and 35 edicules.²⁴ Nevertheless, the processes used to pump and treat the water that is directed to the plant account for the highest proportion of energy expenditures. These processes alone cost a little more than \$10 million in electricity per year.

With respect to the verification and monitoring of energy bills, the information obtained reveals the following facts:

- The HELIOS software is not used to verify and monitor the evolution of energy costs;
- As we shall see below, considering the energy monitoring carried out with respect to the treatment plant's electricity and natural gas bills, we noted that the meters at issue were inventoried and reconciled with those appearing on suppliers' bills. However, we were not able to obtain evidence that such a process had been carried out for various other facilities (e.g., pump stations and edicules) throughout the wastewater collection network;
- With respect to the treatment plant's electricity and natural gas bills, we observed that they are analyzed and closely monitored. The engineers we interviewed pointed out that the plant has its own energy meters (electricity and gas). This enables the plant to corroborate the volumes billed in kilowatt-hours or m³ on a monthly basis. A review of the cost monitoring carried out monthly using Excel spreadsheets designed by the process engineer in charge enabled us to note the existence of the following reconciliations for electricity and natural gas:
 - Monthly estimation of the foreseeable budget costs based on a model designed in accordance with an estimate of the volumes of water historically treated by the plant;

²³ Original 2015 budget.

²⁴ These are small service buildings that are part of the wastewater collection network and house electromechanical and other equipment (e.g., generators, lift gates).

- Monthly calculation of the foreseeable cost of the bill in accordance with the plant meter readings;
- Monthly comparison of the budgeted cost, the foreseeable cost based on the meters and the actual cost billed by the suppliers concerned;
- As far as the electricity bills for various other facilities (e.g., pump stations and edicules) making up the wastewater collection network are concerned, although the amount is not as high (approximately \$700,000 per year), it nevertheless appears that they are not subject to verification apart from a summary visual review nor compiled other than by the finance department for the purpose of paying all bills.

Direction de l'eau potable

The DEP is responsible for managing the energy bills of the six drinking water production plants as well as the 14 water reservoirs and other smaller buildings used to house distribution network equipment (e.g., pump stations, water intakes). Annually, the energy budget associated with drinking water production runs around \$16.9 million. Electricity accounts for the bulk of energy expenditures.

As previously noted, the Charles-J. Des Bailleurs and Atwater plants are the two largest drinking water production plants. Indeed, according to the information obtained, these two plants combined provide 88% of the City's total plant production capacity. Consequently, operating these plants generates considerable electricity costs, all the more so since Hydro-Québec bills a large-power customer rate (LG rate). For example, for 2015, the data collected reveals that the Charles-J. Des Bailleurs and Atwater plants paid electricity bills totalling \$6.8 million and \$3.7 million respectively (before taxes).

With respect to the verification and monitoring of energy bills, the information obtained reveals the following facts:

- The HELIOS software is not used to verify or monitor the evolution of energy costs;
- A process aimed at reconciling the inventory of meters taken on site with those billed by Hydro-Québec should be implemented;
- Apart from the McTavish reservoir, we could find no evidence that the electricity bills (approximately \$2 million) attributable to the other water reservoirs and other smaller facilities housing the various equipment that make up the distribution network are specifically verified, nor that their energy consumption is monitored over time. Indeed, the only compilation found is the one made by the finance department for the purpose of paying all bills issued to the DEP;
- With respect to the electricity bills of the six drinking water production plants, the information obtained reveals that they are subject to a visual review for the purpose of

verifying certain parameters (e.g., rate, billing period, power factors). More specifically, we observed that the electricity bills of the Charles-J. Des Bailleurs and Atwater plants as well as the McTavish reservoir are monitored and compiled separately by an engineer. Indeed, several data provided on these bills as well as various other information concerning plant operations are compiled in an Excel spreadsheet (e.g., electricity costs, power factor, power demand, billed power, volume of water distributed in m³, kWh consumption, unit kWh/m³ consumption of distributed water);

- As previously mentioned (section 4.1.2.), a monthly report is generated for each plant to provide various operational data. One of this report's sections deals with the plant's electrical consumption parameters (e.g., billed cost, kWh consumption, real power in kW). Furthermore, a management dashboard is generated, within which the evolution of the plant's energy consumption per m³ of drinking water is monitored;
- However, at the time of our audit, we did not observe that any counter-verification of the maximum real power demand (in kW) and the monthly consumption (in kWh) used by Hydro-Québec to bill the plants was systematically conducted. Indeed, it would appear that four of the six plants (Atwater, Dorval, Pierrefonds-Roxboro and Lachine) as well as the McTavish reservoir are not equipped with their own electrical meters. This makes it impossible to compare actual consumption with the data generated by Hydro-Québec's meters. Furthermore, although one of the engineers we interviewed contends that internal plant controls could have included periodic readings of Hydro-Québec meters for the purpose of later comparing these readings to the bills, nothing of the sort was done. Two of the plants are equipped with their own meters (Des Bailleurs and Pointe-Claire). However, the engineers responsible for these plants point out that the reliability²⁵ of these meters is questionable given the discrepancies observed between the readings taken on site and the readings billed by Hydro-Québec;
- Finally, although the bills covering the other sources of energy consumed by the plants (e.g., natural gas) are not significant, they are not subject to any specific verification.

4.2.2.B. Recommendation

We recommend that the Service de l'eau take the necessary measures to corroborate on site the existence of each energy meter billed by suppliers and implement mechanisms to verify all energy bills, with the goal of ensuring effective and cost-efficient management of the energy consumption of the facilities for which it is responsible.

²⁵ One of the engineers we contacted also mentioned that the electrical meters may need to be calibrated.

Business unit's response:

[TRANSLATION] Organize a meeting with the SGPI in order to become familiar with the HELIOS software. (Planned completion: June 2016)

Determine whether the HELIOS software is compatible with our operations. If so, purchase it. (Planned completion: December 2016)

If the HELIOS software is purchased, we will analyze the results to determine whether there was possible overbilling for public lavatories and pump stations present on the DÉEU network and DEP plants and reservoirs. (Planned completion: March 2017)

4.2.3. Boroughs of Former Suburban Municipalities

4.2.3.A. Background and Findings

As was previously mentioned in this report, the boroughs of former suburban municipalities are responsible for managing the energy bills of the municipal buildings on their territory.

With respect to the nine boroughs covered by our audit, we observed the following facts:

- The audited boroughs are aware of their building inventories and the energy sources used. However, very few of them confirm having validated all of the existing meters (Hydro-Québec or Gaz Métro) in the field or having reconciled them with the information provided on the bills they pay. Indeed, in light of the information obtained from the people we interviewed, we noted that Saint-Laurent is the only borough that was able to demonstrate that it had completed this exercise;
- Only two boroughs, Saint-Laurent and Saint-Léonard, use the HELIOS software to compile, verify and analyze the evolution of their energy bills;
- The seven²⁶ other boroughs visited do not use HELIOS, and the people we interviewed admitted that the bills are not systematically verified. Indeed, the bills are received and compiled mainly for payment and budget monitoring purposes. Most of the people we interviewed admitted that they do not dispose of the necessary tools to perform this task, whereas others mention that they do not possess the necessary technical knowledge, given the different parameters used to calculate energy bills. Indeed, within these boroughs, bills are received and processed by the financial and material resources departments, whereas the public works department is responsible for their buildings. In most cases, public works officials state that they are not provided with the bills. When they are, the bills are generally not subject to a critical review (e.g., appropriateness of

²⁶ This observation concerns the following boroughs: Anjou, Lachine, LaSalle, Montréal-Nord, Outremont, Pierrefonds-Roxboro and Verdun.

rates, billing period, power factor). It was, however, pointed out that, in cases of doubt, the persons in charge of making sure that the bills are paid will question the public works officials. In conclusion, we noted that these boroughs do not systematically analyze the various billing parameters or the evolution of buildings' energy consumption figures in an attempt to detect discrepancies.

That being said, it must be pointed out for information purposes that we were provided with the *Plan d'harmonisation en gestion de l'énergie* developed by representatives of the Section énergie et environnement of the SGPI. This plan proposes to extend the SGPI's bill management services to other business units for which the SGPI is not currently responsible in order to promote consistency in the management and payment of energy bills and to reduce energy and administrative costs. According to the information obtained, although this harmonization plan was not officially approved by City officials, it did obtain the approval of the City's general manager during a presentation. At the time of our audit, steps leading to the integration of the Verdun borough had been initiated as part of a pilot project.

4.2.3.B. Recommendation

We recommend that the Anjou, Lachine, LaSalle, Montréal-Nord, Outremont, Pierrefonds-Roxboro and Verdun boroughs take the necessary measures to have their energy bills verified and their energy consumption monitored in order to be able to detect any discrepancies and promptly implement the necessary corrective measures.

Business units' responses:

ANJOU BOROUGH

[TRANSLATION] Install the energy management software HELIOS.

Compile data from the billing archives of previous years (electricity, gaz métró, fuel oil).

Monitor building energy consumption in order to have information on rate assessments, unit costs and costs per building.

Analyze energy consumption irregularities (overconsumption) to determine the causes and solve the problem. (Planned completion: December 2016)

LACHINE BOROUGH

[TRANSLATION] Document the energy sources used in each building.

Make an inventory of existing meters (Hydro-Québec and Gaz Métró).

Determine the data that need to be cross-checked using meter readings and bills, such as meter identification, appropriateness of rates and the period covered, then train staff accordingly.

Provide for a procedure to be followed in the event of irregularities. **(Planned completion: September 2016)**

LASALLE BOROUGH

[TRANSLATION] Monitor and analyze energy costs. Following training on the HELIOS software for energy billing, we need to finish entering data on buildings in the borough and keep energy billing data up to date for electricity and natural gas. **(Planned completion: June 2016)**

MONTREAL-NORD BOROUGH

[TRANSLATION] Obtain the HELIOS software licence. **(Planned completion: June 2016)**

Conduct an exhaustive audit of energy bills in the borough. **(Planned completion: July 2016)**

Analyze the results of the audit. **(Planned completion: August 2016)**

Implement the recommendations made as a result of the data analysis and provide for a shift in rates, elimination of certain energy sources and replacement of equipment with a poor energy performance. **(Planned completion: September 2016)**

OUTREMONT BOROUGH

[TRANSLATION] Validate the energy bills of the past year in order to determine how the energy expenditure is distributed in each building, thereby obtaining a profile of the actual situation while at the same time describing how it has changed over the years. The bills will be checked every month by the Division des Opérations manager to validate consumption and billing. **(Planned completion: June 2016)**

Implement HELIOS software to manage energy expenditure billing for buildings. **(Planned completion: December 2016)**

PIERREFONDS-ROXBORO BOROUGH

[TRANSLATION] Establish a procedure for monitoring energy costs (bills) for the various buildings or structures in the borough (signatory in charge of the file). **(Planned completion: June 2016)**

Identify and establish all energy networks based on the electrical panels associated with each billing. **(Planned completion: August 2016)**

Validate the billing method (actual, estimated) used by various sources and optimize the billing method with suppliers. (Planned completion: September 2016)

Purchase, install and train users on a computerized system (HELIOS) used to monitor billing of our energy sources. (Planned completion: September 2016)

Next to the process, put down on paper the responsibilities and deliverables of the people involved in the process. (Planned completion: September 2016)

Draft a report and meet with the borough's finance department in order to validate budget requirements and/or adjustments that need to be made for subsequent years. (Planned completion: November 2016)

VERDUN BOROUGH

[TRANSLATION] Appoint the division head in charge of buildings and rolling stock as the person responsible for monitoring building energy consumption. (Planned completion: March 2016)

Continue integrating the borough's data in the HELIOS software. The integration is supposed to be completed for the early summer of 2016. The reports generated will enable us to identify irregularities in consumption more systematically. (Planned completion: June 2016)

Compile information retroactively (2015 to the present) to compare it with 2016 data and future data. (Planned completion: May 2016)

5. Conclusion

Given the strategic orientation adopted by City officials with respect to sustainable development, the City's business units must contribute to achieving the City's target of reducing greenhouse gas (GHG) emissions by 30% by 2020 while striving to reduce their energy consumption. Under the circumstances, the City's business units must assess, based on their respective realities, the extent to which they are able to contribute to achieving this dual target and then set measurable objectives, use action plans to foresee the measures that need to be implemented and finally report on the results obtained on a periodic basis.

In this regard, our audit shed light on the fact that, in accordance with the *Plan d'économie d'énergie 2013-2015* adopted by the City's executive committee, the Service de la gestion et de la planification immobilière (SGPI) manages the energy consumption of the buildings for which it is responsible in the optic of achieving the 20% target set for reducing energy consumption. We feel that this is a sound management practice, which should be completed by the implementation of a formal and ongoing accountability mechanism to measure the level of achievement. This is currently not the case.

We also observed that both the Service de l'eau and the boroughs of former suburban municipalities that were audited had not set measurable objectives aimed at reducing the energy consumption of the facilities and buildings for which they are responsible.

Also, our audit led us to observe that, apart from the SGPI, most of the business units audited²⁷ have still not implemented sufficient monitoring measures to enable the periodic verification of the energy bills associated with the buildings and other facilities under their responsibility and monitor them over time. For the sake of effective and cost-efficient energy management, we believe that such measures are indispensable to be able to detect discrepancies and promptly take corrective measures to eliminate these discrepancies as quickly as possible. At the same time, considered as the basis of any energy management plan, the implementation of energy consumption verification and monitoring mechanisms will promote the achievement of the City's GHG emissions reduction target.

That being said, should the results obtained at the end of the pilot project carried out by the SGPI with the Verdun borough prove conclusive, we feel that one of the solutions that should be considered is to extend the SGPI's energy bill management services to the City's other business units that currently perform these tasks independently.

²⁷ The Service de l'eau and seven of the nine boroughs of former suburban municipalities that were audited.



**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, 2015

4.7

**Acquisition
Card Management**



Table of Contents

1. Background.....	313
2. Purpose and Scope of the Audit.....	315
3. Main Findings.....	315
4. Audit Results.....	316
4.1. Rules and Procedures Governing the Distribution of Acquisition Cards.....	317
4.2. Rules for Using Acquisition Cards	326
4.3. Accountability	334
5. Conclusion	336

List of Acronyms

SA	Service de l'approvisionnement	SPVM	Service de Police de la Ville de Montréal
SIM	Service de sécurité incendie de Montréal		

4.7. Acquisition Card Management

1. Background

Acquisition cards (or procurement cards) are credit cards that may be issued to the City's business units¹ for the purposes of acquiring goods and services of low dollar value (preferably less than \$1,000), whether from local suppliers or online.² Acquisition cards are issued by a financial institution—the financial services supplier that obtained the City's banking services contract.

The acquisition card management process falls within the purview of the Service de l'approvisionnement (SA's) Division des pratiques d'affaires; the SA itself serves as the intermediary between the business units and the financial institution, except for the Service de Police de la Ville de Montréal (SPVM), which manages its acquisition cards independently. The SA's responsibilities include the following:

- Coordinating the implementation of acquisition cards in all business units;
- Processing requests to issue, modify or cancel acquisition cards;
- Providing users with support.

At the business unit level, distributing acquisition cards entails creating a “master” account with the financial institution and designating a person in charge of the account. The master account encompasses all accounts pertaining to each of the business unit's acquisition cards. The designated person in charge of the master account must ensure that all activities relating to his or her unit's acquisition cards are overseen properly.

There are two types of acquisition cards:

- Personalized cards, which are issued in the name of an employee within a business unit exclusively for use in the performance of his or her duties;
- Non-personalized cards (or “neutral” cards), which are issued in the name of a business unit (e.g., a City department or borough), an administrative unit within a business unit or a specific activity. This type of card may have multiple occasional users.

The person in charge of the master account designates the personalized cardholders, in addition to the primary holders of the neutral cards, who are tasked with ensuring that the acquisition cards are properly stored and managed.

¹ Boroughs, central departments and certain paramunicipal organizations.

² Source: Administrative framework – “Carte d'approvisionnement – utilisation et contrôle (directive),” June 17, 2014, Service de l'approvisionnement (SA).

The City's Service des finances [finance department] is primarily responsible for making regular payments to the financial institution corresponding to the amounts invoiced in the consolidated statement encompassing the accounts of all acquisition cards used, as well as for charging these amounts to the budgetary accounts in accordance with the accounting key provided by each business unit when a card is issued. The financial institution sends a monthly statement of account to each cardholder, a consolidated statement of account to each person in charge of a master account and an overall statement of account to the Service des finances.

According to information obtained from the SA, as of April 30, 2015, a total of 415 active acquisition cards were in circulation within the City's business units. The breakdown is provided in Table 1:

**Table 1 – Active Acquisition Cards in Circulation
as of April 30, 2015**

Business unit	Number of acquisition cards
Boroughs, central departments and paramunicipal organizations	357
SPVM	58 ^[a]
Total	415

^[a] According to the information obtained, this number pertains exclusively to acquisition cards primarily assigned to the SPVM's administrative officers.³

Source: Division des pratiques d'affaires, SA.

Of the above number, 195 are personalized cards, while 220 are neutral cards. Since 2013, purchases made using acquisition cards have followed the trend shown in Table 2:

**Table 2 – Changes in the Number of Transactions
and the Value of Purchases**

Year	Number of transactions		Value of purchases	
	City	SPVM	City	SPVM
2013	25,001	2,270	\$2,027,213	\$229,795
2014	28,621	2,026	\$2,256,255	\$218,949
2015 ^[a]	12,090	798	\$1,104,853	\$88,395
Total	65,712	5,094	\$5,388,321	\$537,139

^[a] Data for the period January 1–April 30, 2015.

³ We were unable to obtain information on acquisition cards used for the SPVM's specific operations.

2. Purpose and Scope of the Audit

The purpose of this audit was to ensure that acquisition cards are used in accordance with the administrative frameworks in effect and that their use is subject to periodic monitoring and accountability.

Our work focused on the administrative practices in effect governing the use of acquisition cards in circulation for the period extending from July 1, 2014,⁴ to April 30, 2015. Our work was carried out in the SA's Division des pratiques d'affaires in our capacity as the City-designated agent tasked with coordinating this activity. More specifically, our audit involved six other business units, with a view to monitoring compliance with the oversight process governing the use of all acquisition cards in circulation. The six units are as follows:

- Ahuntsic-Cartierville borough;
- Verdun borough;
- Ville-Marie borough;
- Service de sécurité incendie de Montréal (SIM);
- Service de l'Espace pour la vie;
- SPVM.

Our work consisted of conducting interviews with managers and employees, in addition to examining documents and carrying out audit testing as we deemed appropriate with a view to obtaining evidence.

3. Main Findings

Based on the audit work performed, we identified a number of areas in which improvements should be made:

- The administrative framework governing the use and oversight of acquisition cards is not systematically followed as regards compliance with the City's delegation of powers regulation and the assignment of credit limits for acquisition cards;
- Active acquisition cards remain in circulation even though the cardholders are temporarily off work;
- Transactions carried out using this payment method are not always supported by relevant documents or, at times, the supporting documents supplied are not the original source documents;
- We were not always able to find evidence that transactions carried out using acquisition cards were verified and approved by the cardholder's immediate supervisor;

⁴ Subsequent to the effective date of the administrative framework dealing with this topic (June 17, 2014).

- With the exception of Ville-Marie borough, no business units that we audited submit accountability reports concerning proper acquisition card use.

4. Audit Results

The use and oversight of acquisition cards are governed by an administrative framework⁵ issued by the Service de l'approvisionnement (SA) and approved by the City's senior management on June 17, 2014. This administrative framework, which applies to all of the City's business units, sets out various rules governing the issuance, use and oversight of acquisition cards, not only as a payment method but also as a means of reducing administrative costs for the acquisition of low-dollar-value goods and services.

In this regard, the City's procurement policy clearly states that the City believes that productivity-related savings may be achieved by reducing the number and the processing cost of low-dollar-value purchases and payments. The policy stipulates that those who make purchases within the City's business units must acquire low-dollar-value goods and services using acquisition cards, unless the goods in question are available at the City's main store or its satellite stores, or if a City-negotiated contract or framework agreement already exists for the required good or service.

In particular, the use of acquisition cards with a view to reducing administrative costs and thereby achieving cost savings is attributable to the costs associated with the processing of purchase orders. According to information obtained from the representatives we interviewed within the SA, the estimated cost to the City is approximately \$200 to process one purchase order. According to the same source, an analysis of the purchase orders created in 2011–2012 shows that the City processes approximately 144,000 purchase orders each year, of which slightly more than 100,000 are valued at less than \$1,000.⁶ Although cost savings may be achieved by using acquisition cards, the flexibility inherent in this payment method requires the implementation of sufficient internal controls to protect public funds.

⁵ Administrative framework entitled *Carte d'approvisionnement – utilisation et contrôle (directive)*, C-RM-APP-D-14-002.

⁶ Source: Division des pratiques d'affaires, SA.

4.1. Rules and Procedures Governing the Distribution of Acquisition Cards

4.1.1. Issuance, Modification and Cancellation of Acquisition Cards

4.1.1.A. Background and Findings

The administrative framework currently in effect sets out the procedure to be followed by business units when applying for acquisition cards or when requesting the modification or cancellation of acquisition cards already in circulation. In addition, it clearly sets out the responsibilities of all actors concerned.

The procedure stipulates that all applications for new acquisition cards and all requests to modify or cancel existing acquisition cards must be formally carried out using the prescribed form. The application or request must be approved by the person in charge of the master account before being forwarded to the SA for processing with the financial institution.

The procedure stipulates that, upon receipt of the acquisition card (whether personalized or neutral), the cardholder must review the rules governing card use and must provide a signed consent indicating his or her intention to follow them.⁷ The original of the prescribed form must be submitted to the SA; the business unit keeps one copy for its records and issues another copy to the cardholder.

Among other things, the rules governing card use stipulate as follows:

- Acquisition cards must be used strictly to pay business expenses incurred in the performance of the primary cardholder's or the occasional user's⁸ duties;
- Acquisition cards should not be used for goods and services covered by a procurement agreement or for goods available in the City's stores.

At this stage in the process, our work consisted of verifying compliance with the procedure with respect to all (100%) of the acquisition cards in circulation within the six business units we audited. Our review indicates that the Verdun borough, the Service de sécurité incendie de Montréal (SIM) and the Service de l'Espace pour la vie do not systematically comply with the procedure implemented by the SA. We noted that 53 forms pertaining to the card rules (out of a total of 185 acquisition cards in circulation within the audited units) were missing (see Table 3). This suggests that the users may not have reviewed the rules governing the

⁷ The prescribed form is entitled *Accusé de réception et engagement de l'employé détenteur d'une carte d'achat de l'institution financière*.

⁸ A person designated from time to time to make purchases using a neutral acquisition card.

use of acquisition cards and that they may not know what kinds of expenses are allowed when using this payment method.

Similarly, for business units that have neutral cards, the primary cardholder is also required, when providing the card to an occasional user, to have him or her read and sign the form pertaining to the rules of card use. In fact, except for the Service de Police de la Ville de Montréal (SPVM) (which only has personalized cards) and Ville-Marie borough (which stated that it has no occasional users of neutral cards in circulation), we found that the business units in our sample do not follow this procedure.

Table 3 – Compliance with the Rules Governing the Use of Acquisition Cards

Business unit	Number of cards in circulation	Number of forms to be filled out	Compliant forms ^[a]	Missing forms	Non-compliance rate %
Ahuntsic-Cartierville borough	9	9	9	0	0 %
Verdun borough	25	25	10	15	60 %
Ville-Marie borough	15	15	15	0	0 %
SIM	57	57	28	29	51 %
Service de l'Espace pour la vie	21	21	12	9	43 %
SPVM	58	58	58	0	0 %
Total	185	185	132	53	29 %

^[a] Compliant forms = signed forms

4.1.1.B. Recommendation

We recommend that the Ahuntsic-Cartierville and Verdun boroughs, together with the Service de sécurité incendie de Montréal and the Service de l'Espace pour la vie, take the necessary steps to ensure that all users of personalized or neutral acquisition cards (including occasional users) have read the rules of use and that they agree to follow them.

Business units' responses:

AHUNTSIC-CARTIERVILLE BOROUGH

[TRANSLATION] We comply with this recommendation when issuing a new acquisition card, whether neutral or personalized.

However, in the case of neutral cards, we will ensure that occasional users familiarize themselves with the rules of use and agree to follow them.

A guideline will be developed and sent out to all holders of neutral cards. (Planned completion: April 2016)

VERDUN BOROUGH

[TRANSLATION] We will formalize the situation concerning the rules of use (this mainly concerns neutral cards) as follows:

- Determine the primary users of neutral cards by the administrative unit;
- Validate whether it is necessary to maintain all the neutral cards, based on their pattern of use;
- Have primary users of neutral cards read and sign a document setting out the card rules;
- Resend the form to all users and file the original signed copy in the prescribed binder;
- Send out a reminder to the managers concerning the rules governing users' signing of the card rules. **(Planned completion: March 2016)**

Develop an internal procedure to ensure that the document containing the card rules has been signed and received. **(Planned completion: April 2016)**

SERVICE DE SÉCURITÉ INCENDIE DE MONTRÉAL (SIM)

[TRANSLATION] The SIM proposes the following oversight measures when distributing personalized or neutral acquisition cards:

- Users must read the card rules and must sign the form pertaining to the card rules, confirming that they agree to follow these rules prior to receiving the card;
- Provide a copy of the administrative framework in effect. **(Planned completion: February 2016)**

SERVICE DE L'ESPACE POUR LA VIE

[TRANSLATION] Requests have been sent to the individuals concerned asking them to complete the missing forms pertaining to the card rules.

In addition, a memo, together with a copy of the card rules and the administrative framework, will be sent out to all primary and occasional cardholders for re-reading. **(Planned completion: January 2016)**

4.1.2. Compliance with the Delegation-of-Powers Regulation

4.1.2.A. Background and Findings

In order to achieve greater administrative efficiency, the City's executive committee adopted a regulation⁹ delegating some of its powers to certain City officials. In particular, this regulation sets out the monetary limits of this delegated power as it applies to authorizing expenses.

⁹ Executive committee's internal regulation concerning the delegation of powers to City officials and employees, RCE 02-04 (Règlement intérieur du comité exécutif sur la délégation de pouvoir aux fonctionnaires et employés).

The administrative framework on the use and oversight of acquisition cards currently in effect stipulates as follows (section 4.2):

[TRANSLATION] Compliance with the delegation of powers. In the case of personalized cards, the following principle applies: the card's credit limit may not exceed the cardholder's delegation amount. For non-personalized cards, the rules of use applicable to the primary cardholder also apply to occasional users.

On the same topic, section 5 of the administrative framework stipulates as follows with respect to the business units' roles and responsibilities:

[TRANSLATION] [...] As regards the credit limit, he ensures compliance with the delegation regulation [...].

Our audit work thus focused on verifying compliance with the application of these provisions. For all of the business units we audited, we found instances of non-compliance with this requirement. Out of a total of 185 acquisition cards in circulation within the six business units sampled, 37 cases were found to have authorized credit limits for the acquisition card exceeding the cardholder's delegated powers, in addition to 8 cases in which the cardholder had not been granted any delegated powers (see Table 4).

Table 4 – Compliance with the Delegation-of-Powers Regulation

Business unit	Number of cards in circulation	Credit limit exceeding the delegated powers	Cardholder ¹⁰ without delegated powers	Total	Non-compliance rate %
Ahuntsic-Cartierville borough	9	0	3	3	33 %
Verdun borough	25	1	0	1	4 %
Ville-Marie borough	15	0	1	1	7 %
SIM	57	29	1	30	53 %
Service de l'Espace pour la vie	21	1	1	2	10 %
SPVM	58	6	2	8	14 %
Total	185	37	8	45	24 %

When we began our audit work, the SA's representatives within the Division des pratiques d'affaires informed us that the administrative framework for acquisition cards had been revised, although it had not yet been submitted to the City manager for approval. We obtained a copy of the draft version of the document. Upon reading this version, we noted that all

¹⁰ In the case of neutral cards, the delegation of powers for the designated primary cardholder was taken into consideration.

aspects pertaining to compliance with the City's delegation of powers when issuing acquisition cards had been eliminated. In fact, section 4.2 reads as follows:

[TRANSLATION] "The acquisition card must absolutely be used within the limits prescribed by the person in charge of the master account, in particular the authorized expense amounts that remain at his or her discretion and may pertain to the following:

- The maximum authorized amount per transaction; or*
- The maximum authorized amount per month; or*
- The type of products and services to be acquired."*

That being said, the business units are required to comply with the administrative frameworks in effect and, in this case, the credit limit to be assigned when issuing acquisition cards must be determined in accordance with the City's delegation-of-powers regulation, which in our view seems consistent with the City's practices. However, in the event that the criteria set out in the new proposed framework are approved, we are of the opinion that the persons in charge of the master accounts within the City's business units must closely monitor the way in which the acquisition cards within their purview are managed, with a view to ensuring proper and prudent use thereof.

4.1.2.B. Recommendation

We recommend that the Ahuntsic-Cartierville, Verdun and Ville-Marie boroughs, together with the Service de sécurité incendie de Montréal, the Service de l'Espace pour la vie and the Service de Police de la Ville de Montréal, take the necessary steps to ensure compliance with the administrative framework in effect or with the administrative framework scheduled for revision as regards credit limits for acquisition cards.

Business units' responses:

AHUNTSIC-CARTIERVILLE BOROUGH

[TRANSLATION] At the present time (i.e., since September 2015), the credit limit for personalized cards does not exceed the amount authorized under the delegation-of-powers regulation for the cardholder or his or her immediate supervisor.

In order to comply with the current administrative framework, we will take steps to cancel the personalized cards issued to cardholders who have not been delegated any powers. (Planned completion: April 2016)

VERDUN BOROUGH

[TRANSLATION] The audit period extended from July 1, 2014, to April 30, 2015. However, effective December 5, 2014, the borough's delegation of powers was

modified. Since that date, all foremen are delegated powers for the purchase of goods and services up to a maximum of \$15,000.

Auditor general's comments:

The delegation of powers valued at \$15,000 has only been in effect since December 8, 2015.

VILLE-MARIE BOROUGH

[TRANSLATION] A notice of motion was submitted to the borough council on December 8, 2015, with a view to amending the delegation-of-powers regulation. The amended regulation is scheduled to be adopted at the next meeting of the borough council, i.e., on February 10, 2016. (Planned completion: February 2016)

SERVICE DE SÉCURITÉ INCENDIE DE MONTRÉAL (SIM)

[TRANSLATION] The SIM produced a report covering all active cards, with the following information:

- *The cardholder's name and job title;*
- *The card's purpose;*
- *The card's credit limit and the cardholder's delegation of powers;*
- *The mention "compliant" or "non compliant" with the delegation rules.*

The SIM will reassign the cards held by secretaries and clerks (non compliant) to the managers in question. This report will be updated by the financial advisory and support team and will be included in the accountability report submitted to SIM's management (March 31 and September 30 of each year). (Planned completion: February 2016)

SERVICE DE L'ESPACE POUR LA VIE

[TRANSLATION] One cardholder was not included in the delegation rules. We included the person's name in the updated document dated January 1, 2016.

The auditor noted that the credit limit for one cardholder exceeded the authorized amount under the delegation of powers. Subsequently, the delegation of powers was increased, thereby ensuring compliance with the framework. (Planned completion: January 2016)

SERVICE DE POLICE DE LA VILLE DE MONTRÉAL

[TRANSLATION] Verify cardholders in relation to the authorized credit limit by proceeding as follows:

- *Implement an expense limit per transaction corresponding to the amount granted under the delegation of powers for those cardholders whose credit limit exceeds the delegated powers. (Planned completion: March 2016)*
- *For cardholders without delegated powers, change the person in charge of the card or issue non-personalized cards in the name of the unit, ensuring that the*

primary cardholder's delegation of powers exceeds the credit limit. **(Planned completion: March 2016)**

- Validate the credit card form to ensure compliance with forms used by the SA. **(Planned completion: March 2016)**
- Issue a twice-yearly accountability report. **(Planned completion: July 2016)**

4.1.3. Oversight of Acquisition Cards in Circulation

4.1.3.A. Background and Findings

Among the roles and responsibilities assigned to business units, the administrative framework dealing with the use and oversight of acquisition cards stipulates that each person in charge of a master account must [TRANSLATION] “ensure that each card is associated with an active person in the City’s employment register”.¹¹ In addition, as regards information security and operational oversight, the administrative framework stipulates that all cases of employment termination or modification of job duties involving holders of acquisition cards (whether personalized or neutral) must be overseen by the person in charge of the master account within the business unit to keep the register of acquisition cards in circulation up to date.

In such situations, the administrative framework sets out various steps to be followed (see Table 5 below):

Table 5 – Oversight of Acquisition Cards in Circulation in the Event of Termination of Employment or Modification of Job Duties¹²

Personalized cards	Neutral cards
Recover the card from the cardholder.	Select a new primary cardholder.
Submit the “modification or cancellation of an acquisition card” form via email to the SA in order to cancel the card number.	Submit the “modification or cancellation of an acquisition card” form via email to the SA in order to record the name of the new primary cardholder.
Destroy the card.	Ensure that the new cardholder reads, fills out and signs the rules of use [...]

In order to evaluate the extent to which the prescribed oversight duties were carried out, we used computerized tools to carry out a comparative analysis of information in various databases for all City-related acquisition cards in circulation during the audit period. First and foremost, the analysis focused on detecting cases in which active acquisition cards were still

¹¹ Section 5.2, administrative framework, *Carte d’approvisionnement – utilisation et contrôle (Directive)*, June 14, 2014.

¹² Source: Administrative framework, *Carte d’approvisionnement – utilisation et contrôle (Directive)*, June 14, 2014.

in circulation even though the cardholders were in “termination of employment” situations (e.g., retirement, resignation, layoff). Based on the results of our analysis, a total of six acquisition cards were in circulation even though the employees in question were no longer employed by the City. For each of these cards, we looked for transactions carried out since the termination-of-employment date. One single transaction involving an insignificant dollar amount was traced to a neutral card even though the employee in question had been retired for seven months.

In addition, we noted that the administrative framework governing the use and oversight of acquisition cards makes no mention of the procedure to be followed when the holder of a personalized or neutral acquisition card is temporarily off work (e.g., on long-term disability or maternity leave). However, based on the computer analyses carried out for all acquisition cards in circulation during the audit period, we noted various transactions that were carried out using acquisition cards whose designated holder was out of work for some time. In fact, we found the names of 23 different individuals for 39 acquisition cards.¹³ It appears that during the off-work period, the acquisition cards assigned to these individuals continued to be used without any modification designating a new cardholder being submitted to the SA.

In our opinion, even though in light of these results the occurrence of such situations is not widespread, the fact remains that the oversight measures should be tightened.

4.1.3.B. Recommendation

We recommend that the Ahuntsic-Cartierville, Verdun and Ville-Marie boroughs, together with the Service de sécurité incendie de Montréal, the Service de l’Espace pour la vie and the Service de Police de la Ville de Montréal, take the necessary steps to ensure close monitoring of all acquisition cards in circulation whose holders are definitively or temporarily off work.

Business units’ responses:

AHUNTSIC-CARTIERVILLE BOROUGH

[TRANSLATION] In the case of the definitive departure of a personalized cardholder, we recover, destroy and request cancellation of the card.

In the case of the definitive departure of a neutral cardholder, we request that the cardholder’s name be modified.

We will modify the cardholder’s name if the cardholder is temporarily off work. In this regard, the relevant information will be validated with the “Register of employment”

¹³ An individual may be the designated primary cardholder for more than one neutral acquisition card.

system and with the Division des ressources humaines. **(Planned completion: April 2016)**

VERDUN BOROUGH

[TRANSLATION] Develop an internal procedure (who? when? how?) for cardholders who are definitively or temporarily off work. This will be done by:

- Developing a report via info-RH and a monitoring and oversight procedure;
- Training users on the procedure;
- Implementing the procedure;
- Sending out a reminder to managers and cardholders detailing their responsibilities. **(Planned completion: April 2016)**

VILLE-MARIE BOROUGH

[TRANSLATION] Based on a verification of the available information at the SA's Division des pratiques d'affaires pertaining to the list of cards recorded in the database for the Ville-Marie borough, there are no discrepancies concerning the cards that are actually in circulation. **(Planned completion: December 2015)**

Nevertheless, a reminder will be included in the internal oversight committee's report dated December 31, 2015, which will be submitted to the management committee on January 18, 2016. **(Planned completion: January 2016)**

SERVICE DE SÉCURITÉ INCENDIE DE MONTRÉAL (SIM)

[TRANSLATION] The SIM will submit the list of acquisition cardholders to the HR team on a monthly basis. Subsequently, if any staff members definitively or temporarily stop working, HR will be responsible for informing the finance department's advisory support team and the person in charge of the master account at the SIM so that the situation may be formalized, as applicable. **(Planned completion: March 2016)**

SERVICE DE L'ESPACE POUR LA VIE

[TRANSLATION] During the audit of the Service de l'Espace pour la vie, it was noted that one card had been used while the cardholder was off work.

We will mention this fact in a memo to be sent out to cardholders to ensure that this does not happen again. **(Planned completion: January 2016)**

SERVICE DE POLICE DE LA VILLE DE MONTRÉAL

[TRANSLATION] Send out a reminder memo detailing the process to be followed to make sure acquisition cardholders and their immediate supervisors are aware of their responsibilities even if they are absent, have stopped working, have modified job duties or are on extended leave. **(Planned completion: March 2016)**

Temporarily deactivate a card during an extended leave and permanently deactivate it upon termination of employment. **(Planned completion: upon receipt of the credit card form)**

Validate the status of acquisition cardholders in the register of employment. (Planned completion: 10 days following receipt of the accounts closing off the six-month period – July 2016)

4.1.3.C. Recommendation

In order to tighten the oversight mechanisms for acquisition cards in circulation, we recommend that the Service de l'approvisionnement enhance the administrative framework in effect by including a procedure to be followed by business units when the employment of an employee designated as an acquisition cardholder is temporarily interrupted.

Business unit's response:

[TRANSLATION] A new section will be added to the administrative framework detailing the procedure to be followed in the event that employment is temporarily interrupted.

In addition, the SA will change the card's credit limit to \$0.00 during the employee's absence. (Planned completion: May 2016)

4.2. Rules for Using Acquisition Cards

4.2.1. Compliance Concerning Expenses Charged to Acquisition Cards

4.2.1.A. Background and Findings

Acquisition cards enable City staff to acquire certain low-dollar-value goods and services more easily. Nevertheless, the types of expenses permitted using this payment method are subject to certain restrictions, which are set out in the administrative framework dealing with the use and oversight of acquisition cards. In particular, the established rules mention that acquisition cards:

- Must be strictly used to pay for business expenses incurred in the performance of the primary cardholder's or the occasional user's duties;
- Should not be used for goods and services covered by a procurement agreement or for goods available in the City's stores;
- Must not be used in payment for professional services.

In addition, it is mentioned that the administrative framework does not apply to pre-planned expenses (travel, trips, hotels, restaurants, seminars, training, etc.) already covered by another City framework in effect (e.g., managers' official expenses, travel carried out at the

employer's request and related expenses, work-related meeting, hosting and reception expenses and entertainment expenses).

For the six business units selected, our audit work focused on reviewing compliance with the established rules of use. To that end, a sample of 47 acquisition cards out of 185 acquisition cards in circulation within the business units we audited was selected for the purpose of carrying out a detailed review of the expenses appearing in the monthly statement of account issued by the financial institution. In total, 188 monthly account statements were examined (see Table 6).

Table 6 – Sample of Acquisition Cards Examined by Business Unit

Business unit	Number of acquisition cards in circulation	Number of acquisition cards examined	Number of monthly account statements examined
Ahuntsic-Cartierville borough	9	4	16
Verdun borough	25	8	32
Ville-Marie borough	15	6	24
SIM	57	11	44
Service de l'Espace pour la vie	21	7	28
SPVM	58	11	44
Total	185	47	188

Our review underscored the fact that, as a general rule, the expenses incurred using acquisition cards pertain to the audited unit's business operations and, all in all, seem reasonable. Nevertheless, as regards compliance with the established rules, we noted a number of transactions in violation of the administrative framework in effect. In particular, we detected various transactions carried out within the three boroughs we audited that pertained to goods covered by a procurement agreement.

In addition, we identified various transactions in violation of the administrative framework in effect concerning the restriction stating that acquisition cards may not be used to pay for pre-planned expenses already covered by another City administrative framework in effect. A total of 103 transactions pertained to meal-related expenses (e.g., food delivery) or expenses incurred in restaurants, while 28 transactions concerned travel expenses (hotels and airline tickets) and another 10 transactions had to do with seminar and training expenses (see Table 7).

Table 7 – Type and Number of Transactions in Violation of the Administrative Framework by Audited Business Unit (for the period extending from July 1, 2014, to April 30, 2015)

Business unit	Meals and restaurant expenses	Hotels and travel	Seminars and training
Ahuntsic-Cartierville borough	2	1	1
Verdun borough	2	0	1
Ville-Marie borough	3	0	0
SIM	72	2	2
Service de l'Espace pour la vie	0	11	2
SPVM	24	14	4
Total transactions	103	28	10

In this regard, while examining the revised but not yet approved version of the administrative framework pertaining to acquisition cards, we noted that restrictions on the scope of application had been eased in relation to the administrative framework currently in effect, eliminating the restrictions concerning pre-planned expenses already covered by another City administrative framework in effect. According to the information obtained from managers in charge of this activity at the SA, this guideline reflected a desire to foster increased use of acquisition cards, given the potential administrative savings associated with this payment method.

We are aware that it may be necessary to use an acquisition card for an emergency purchase under certain circumstances. However, regardless of the City's future guidelines, the fact remains that the business units must comply with the regulations in effect.

4.2.1.B. Recommendation

We recommend that the Ahuntsic-Cartierville, Verdun and Ville-Marie boroughs, together with the Service de sécurité incendie de Montréal, the Service de l'Espace pour la vie and the Service de Police de la Ville de Montréal, take the necessary steps to ensure that expenses incurred using acquisition cards are in compliance with the administrative framework in effect.

Business units' responses:

AHUNTSIC-CARTIERVILLE BOROUGH

[TRANSLATION] We will inform the individuals in charge and the cardholders to ensure that all purchases comply with the current framework.

In addition, supporting documents will be verified on a monthly basis to ensure compliance with the administrative framework. (Planned completion: April 2016)

VERDUN BOROUGH

[TRANSLATION] A reminder was sent out to all managers on April 29, 2015, concerning use of procurement cards. **(Planned completion: March 2016)**

Resend the guideline to all personnel.

Include this item in the internal verification procedure (manager's signature on the statements) as well as in the internal procedure. **(Planned completion: April 2016)**

VILLE-MARIE BOROUGH

[TRANSLATION] A memo was sent out to all acquisition card users on December 14, 2015, reminding them that they are not authorized to use the cards to pay for meal or restaurant expenses (whether on site or delivered) and that they must refer to the administrative framework C-OG-SFIN-D-14-001, which **stipulates that the expense must be paid by the employee concerned and must subsequently be reimbursed** in accordance with standard procedures. **(Planned completion: December 2015)**

SERVICE DE SÉCURITÉ INCENDIE DE MONTRÉAL (SIM)

[TRANSLATION] As an oversight mechanism, the SIM will ensure that acquisition cardholders fill out the travel expense form attached to the reimbursement request. This form must be signed by the employee's immediate supervisor.

This measure will result in acceptable oversight mechanisms prior to the issuance of the new City administrative framework detailing the rules of use for acquisition cards.

A reminder detailing the various administrative frameworks will be sent out by SIM management to all cardholders and to the SIM's management committee. **(Planned completion: February 2016)**

SERVICE DE L'ESPACE POUR LA VIE

[TRANSLATION] We will mention in the memo to be sent out to all cardholders that charging expenses covered by other administrative frameworks (e.g., conferences and travel) is prohibited. **(Planned completion: January 2016)**

SERVICE DE POLICE DE LA VILLE DE MONTRÉAL

[TRANSLATION] A management memo will be sent out indicating the SPVM's position on non-compliant transactions. **(Planned completion: March 2016)**

Escalation will occur in the event of non-compliance. **(Planned completion: as needed and when submitting accountability reports)**

Send the "acquisition card sampling" report to the person in charge of the master account. **(Planned completion: monthly)**

Adapt our procedures once the administrative framework is updated. (Planned completion: when update is issued)

4.2.2. Verification of Invoiced / Posted Expenses

4.2.2.1. Verification of Invoiced Expenses

4.2.2.1.A. Background and Findings

The person in charge of the master account in each business unit must put in place the necessary oversight mechanisms to facilitate the proper use of the acquisition cards under her or his authority.

Among these mechanisms, it is essential that a verification process be implemented within each business unit with a view to detecting any irregularities. More specifically, the invoiced expenses appearing in the monthly statement of account for each of the acquisition cards in circulation must be reconciled with the appropriate supporting documents. At this stage, special attention must be paid to the appropriateness of the supporting documents submitted for the expenses in question. These supporting documents must be original source documents (not photocopies) containing sufficient detail to verify that the expenses incurred are legitimate and to ensure that the City does not reimburse the same expense twice in the event that the original invoice is submitted for a different expense report. Ultimately, a manager holding a higher rank than that of the acquisition cardholder must examine and approve the statements of expenses incurred using this payment method within his or her unit.

Based on the same sample and the same period shown in Table 6 (see previous section), we reviewed the measures used to verify and approve the invoiced expenses implemented by each of the business units we audited.

For all of the business units we audited, we noted that a process aimed at reconciling the invoiced expenses appearing in monthly statements with the supporting documents was indeed in place. This task is entrusted to someone other¹⁴ than the cardholder, which ensures an appropriate division of roles and responsibilities.

As regards the appropriateness of supporting documents, Ville-Marie borough was compliant with this aspect of the process, but a number of irregularities were detected for the other business units we audited. Based on our review, 28 transactions were identified (see Table 8)

¹⁴ Generally, an administrative support clerk.

for which no invoice had been supplied, together with six others for which photocopies (instead of original invoices) had been submitted in support of the expenses.

Table 8 – Appropriateness of Supporting Documents

Business unit	Supporting documents missing	Original invoices missing (photocopies used)
Ahuntsic-Cartierville borough	2	0
Verdun borough	0	5
Ville-Marie borough	0	0
SIM	17	0
Service de l'Espace pour la vie	5	0
SPVM	4	1
Total	28	6

Finally, as part of the expense verification process, it is important for the immediate supervisor (i.e., holding a higher rank than that of the primary cardholder) to review the appropriateness of the expenses in the monthly account statement and to approve them. For the acquisition cards in our sample (see Table 6), we ensured that the monthly statements (or other supporting documents, as applicable) displayed evidence of proper approval. The results of this review are shown in Table 9.

Table 9 – Approval of Acquisition Card Expenses Invoiced in Monthly Statements

Business unit	Number of monthly statements examined	Number of statements with proper approval	Number of self-approved statements	Number of statements with no evidence of approval
Ahuntsic-Cartierville borough	16	5	11	0
Verdun borough	32	14	15	3
Ville-Marie borough	24	24	0	0
SIM	44	4	8	32
Service de l'Espace pour la vie	28	16	12	0
SPVM	44	44	0	0
Total	188	107	46	35

As regards Ville-Marie borough and the SPVM, our review showed evidence of proper approval for the account statements in our sample. However, as regards the other business units we audited, the approval process does not appear to be as formalized. At times, we noted that certain cardholders self-approved the expenses they incurred using an acquisition card. In other cases, we found no evidence of approval.

4.2.2.1.B. Recommendation

We recommend that the Ahuntsic-Cartierville and Verdun boroughs, together with the Service de sécurité incendie de Montréal, the Service de l'Espace pour la vie and the Service de Police de la Ville de Montréal, take steps to obtain original source documents for each transaction carried out using an acquisition card in support of the expenses incurred to verify the appropriateness of the transactions and reduce the risk of reimbursing the same expense twice.

Business units' responses:

AHUNTSIC-CARTIERVILLE BOROUGH

[TRANSLATION] Each account statement is verified monthly to ensure that each purchase has original supporting documents. (Completed)

VERDUN BOROUGH

[TRANSLATION] Remind all managers and procurement card users of the need to submit original supporting documents.

- *Develop a reconciliation form (statements + original invoices).*
- *Train the managers in question and communicate this process to them.*
- *Implement the process. (Planned completion: March 2016)*

Include this item in the internal procedure. (Planned completion: April 2016)

SERVICE DE SÉCURITÉ INCENDIE DE MONTRÉAL (SIM)

[TRANSLATION] The SIM's management will send out a memo to all acquisition cardholders reminding them of the rules in effect and of the requirement to submit original source documents (supporting documents). Any problem cases will be submitted to the immediate supervisor in question.

The accountability report submitted to the SIM's management by the financial advisory and support team will include information pertaining to any missing supporting documents. (Planned completion: February 2016)

SERVICE DE L'ESPACE POUR LA VIE

[TRANSLATION] We will mention in the memo to be sent out to all cardholders that all transactions must be supported by original documents. (Planned completion: January 2016)

SERVICE DE POLICE DE LA VILLE DE MONTRÉAL

[TRANSLATION] Send a memo from SPVM's management concerning original documents. (Planned completion: March 2016)

Continue to verify that original supporting documents are attached to the monthly statements and continue to send an email to cardholders if any documents are missing. **(Planned completion: monthly)**

Issue an accountability report every six months. **(Planned completion: 20 days following receipt of the accounts closing the six-month period – July 2016)**

4.2.2.1.C. Recommendation

We recommend that Ahuntsic-Cartierville and Verdun boroughs, together with the Service de sécurité incendie de Montréal and the Service de l'Espace pour la vie, take the necessary steps to ensure that the monthly statements of transactions carried out using acquisition cards are reviewed and formally approved by the immediate supervisor with a view to verifying the appropriateness of the expenses.

Business units' responses:

AHUNTSIC-CARTIERVILLE BOROUGH

[TRANSLATION] Monthly account statements are approved by the immediate supervisor of the personalized or neutral cardholder. **(Completed)**

VERDUN BOROUGH

[TRANSLATION] Develop a reconciliation form (statements + original invoices).
Develop a process for approving monthly statements by managers.
Train the managers in question and communicate this process to them.
Implement the process. **(Planned completion: March 2016)**

Include this item in the internal procedure. **(Planned completion: April 2016)**

SERVICE DE SÉCURITÉ INCENDIE DE MONTRÉAL (SIM)

[TRANSLATION] The SIM will require the immediate supervisor of the acquisition cardholder to sign the reimbursement request for expenses charged using the acquisition card issued by the financial institution.

Subsequently, the financial advisory and support team will check the immediate supervisor's signature and, if the reimbursement request pertaining to the acquisition card is not in compliance, the request will be sent back to the manager in question.

This approval rule will be included in the memo sent by the SIM's management to all cardholders and their immediate supervisors. **(Planned completion: February 2016)**

SERVICE DE L'ESPACE POUR LA VIE

[TRANSLATION] We will mention in the memo to be sent out to all cardholders that statements (together with supporting documents) must be reviewed and formally

approved by the immediate supervisor of the acquisition cardholder. (Planned completion: January 2016)

4.3. Accountability

4.3.A. Background and Findings

It should be noted that all individuals in charge of master accounts¹⁵ within the City's various business units are responsible for ensuring proper oversight of all activities pertaining to the acquisition cards in circulation within their unit. Therefore, they must take the necessary steps to ensure that all acquisition cards in circulation are used in accordance with the rules set out in the administrative framework in effect and are ultimately accountable to the managers of their unit.

To that end, the persons in charge of master accounts are able to consult all transactions carried out by their respective administrative units and to obtain various management reports from the financial institution's "INTELLILINK" Web application, including:

- The list of active cards (e.g., including the cardholder's name, credit limit and most recent transaction date);
- The summary of transactions pertaining to the cards (purchase history).

In light of the information we obtained, we note that with the exception of Ville-Marie borough (which issues a quarterly internal oversight report, including a section detailing acquisition card use and offering recommendations), the business units we audited do not verify whether the acquisition cards in circulation within their business unit are used properly, nor do they submit accountability reports in this regard.

4.3.B. Recommendation

We recommend that Ahuntsic-Cartierville and Verdun boroughs, together with the Service de sécurité incendie de Montréal, the Service de l'Espace pour la vie and the Service de Police de la Ville de Montréal, take steps to implement the required accountability mechanisms with a view to informing their management as to proper use of acquisition cards within their business unit.

¹⁵ A master account encompasses all accounts pertaining to each of the acquisition cards in circulation within a business unit.

Business units' responses:**AHUNTSIC-CARTIERVILLE BOROUGH**

[TRANSLATION] An accountability report will be issued every six months to inform each of the departments on proper use of acquisition cards within their business unit. (Planned completion: July 2016)

VERDUN BOROUGH

[TRANSLATION] Develop an accountability report concerning the proper use of acquisition cards within the borough and define the accountability process (how often, how and to whom).

Submit the report and process for approval by members of the management committee.

Implement the process after it has been approved. (Planned completion: May 2016)

SERVICE DE SÉCURITÉ INCENDIE DE MONTRÉAL (SIM)

[TRANSLATION] The financial advisory and support team will submit an accountability oversight report to the SIM's management committee within the same timeframe as the budget updates. This report will be issued on a quarterly basis by the person in charge. It will include:

- The list of cardholders;*
- The cardholder's job title;*
- The name on the account (card user);*
- The card's credit limit;*
- The cardholder's delegation-of-powers status and compliance as regards the credit limit.*

[TRANSLATION] This report will also include follow-up on recommendations for original supporting documents, as well as compliance with the administrative frameworks. It will also include information on the distribution and use of acquisition cards for the SIM. (Planned completion: March 2016)

SERVICE DE L'ESPACE POUR LA VIE

[TRANSLATION] We propose that verifications (validation of statements and supporting documents) be carried out on a quarterly basis. Every three months, 5 out a total of 20 cards will be verified.

A report detailing any anomalies detected (as applicable) will be sent to the appropriate managers. (Planned completion: March 2016)

SERVICE DE POLICE DE LA VILLE DE MONTRÉAL

[TRANSLATION] Issue internal oversight reports every six months dealing with proper use of acquisition cards, including verification of the following information:

- *Cardholders;*
- *Employee status;*
- *Credit limit;*
- *Compliance with the delegation of powers;*
- *Compliance with the rules of use;*
- *Purchase history. (Planned completion: 20 days following receipt of the accounts closing the six-month period – July 2016)*

Accountability reports will be submitted to the SPVM's management. (Planned completion: one week following receipt of the reports – July 2016)

5. Conclusion

In general, we find that the City has put in place an effective mechanism for managing acquisition card use. In addition, although our work did uncover certain irregularities, our overall finding is that a large proportion of the users of this payment method within the business units follow the rules set out in the administrative framework in effect and that they demonstrate common sense in administering these rules.

Nevertheless, insofar as the City wishes to encourage increased use of this payment method (given its operational flexibility and the potential cost savings), we are of the opinion that certain aspects of the administrative framework must be improved or clarified with a view to, among other things, tightening oversight with respect to the monitoring of acquisition card use and avoiding any ambiguities.

In addition, at the business unit level, we believe that improvements must be made with a view to ensuring tighter monitoring of expenses incurred using acquisition cards and to submitting periodic reports on proper acquisition card use.



**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, 2015

4.8

**Real Estate
Transaction
Management**
(Service de la gestion et de
la planification immobilière)



Table of Contents

1. Background.....	341
2. Purpose and Scope of the Audit.....	342
3. Main Findings.....	343
4. Audit Results.....	343
4.1. Receipt of Requests and Preliminary Analysis.....	345
4.2. Real Estate Transactions.....	348
4.3. Accountability Reporting.....	366
5. Conclusion	368

List of Acronyms

SGPI Service de la gestion et de la
 planification immobilière

4.8. Real Estate Transaction Management (Service de la gestion et de la planification immobilière)

1. Background

Real estate property management involves concluding asset acquisitions and disposals as part of municipal asset management programs or as a means to help improve the urban environment and economic development of the Ville de Montréal (the City).

When concluding such real estate transactions, the City must be sure to comply with the applicable legal and administrative frameworks. From the outset, the City is subject to the *Municipal Aid Prohibition Act* and must therefore dispose of property in exchange for payment.

According to the charter of the City (the charter), City council has the powers to approve real estate acquisitions and disposals. For acquisitions and disposals of immovables valued at \$25,000 or less, the charter also stipulates that these powers are exercised by the executive committee. In addition, since September 2, 2015, the powers of the executive committee have been delegated to the Service de la gestion et de la planification immobilière (SGPI),¹ which is responsible for real estate transaction management.

In terms of the awarding method, the charter states that, for property acquisitions, the City can acquire by agreement or expropriation any immovable for industrial purposes (art. 139) or whose acquisition is deemed appropriate for land reserve or housing purposes (art. 144). In the case of disposals, articles indicating the disposal method to be followed (e.g., public call for tenders or agreement) are not included in the charter.

Real estate transactions represent substantial amounts. Table 1, below, shows the amounts for 2014 and 2015.

Table 1 – Real Estate Transaction Amounts

Real estate transactions	2014	2015
Acquisitions	\$26.5M	\$20.6M ^[a]
Actual sales	\$10.4M	\$12.7M

^[a] Data recorded in the accounting system as of February 22, 2016.

Source: SIMON for the acquisition data and the Service des finances for the sales.

¹ Level A official, i.e., director – real estate evaluation and brokerage/security.

In 2015, a restructuring process was undertaken within the SGPI. In the first phase, four departments were created, including two involved in the management of real estate transactions: the Direction évaluation et courtage immobilier / sécurité and the Direction planification, assurance qualité et service à la clientèle. Pending the establishment of the divisions and sections in this new structure, the business units involved in the process remain the Section des stratégies immobilières, the Section des transactions immobilières and the Section de l'évaluation immobilière.

Well before this restructuring, the Direction générale had given the SGPI a mandate aimed at optimizing real estate transaction processes. In 2014, the SGPI reviewed business processes with a view to improving and standardizing procedures. Expectations were mainly to increase the number of files finalized.² Since that time, the SGPI has been continuing the work of optimizing real estate transactions.

Every year, the Section des transactions immobilières opens over 230 transaction mandates of various categories and closes roughly 200 files. On August 31, 2015, a little over 550 files were still active. Close to 50% were sale files, 30% acquisition files and 20% involved other types of transactions (e.g., a release, a servitude).

2. Purpose and Scope of the Audit

The purpose of the audit conducted was to ensure that the real estate transactions (the sale and purchase of land) were governed by a strategic management process and were conducted in such a way as to maximize value for the City. To this end, we examined the presence of administrative frameworks, real estate transaction processes, follow-up and control mechanisms, and accountability.

Our audit covered real estate transactions completed between June 2014 and August 2015. For certain aspects, data from before this period were also taken into consideration. Our audit was mainly conducted between December 2015 and February 2016 and took place mainly within the SGPI, and more specifically within the Direction évaluation et courtage immobilier / sécurité, to which the Section des transactions immobilières and the Section de l'évaluation immobilière administratively reported at the time of our audit. It was also conducted within the Section des stratégies immobilières of the SGPI.

² Completed decision-making record in which the head of the administrative unit confirms that the information it contains has been verified, that the standards and procedures have been followed, that the required authorizations and notices have been obtained, and that the file can be submitted to the relevant decision-making bodies.

3. Main Findings

The audit conducted revealed the areas in need of improvements, including the following:

- The role and responsibilities of the Section des stratégies immobilières in the real estate transaction management process need to be clarified;
- Administrative frameworks have still not been drafted for all the types of real estate transactions, including acquisitions and sales over \$25,000;
- There are no mechanisms allowing all employees involved in the real estate transaction process to declare their independence before the start of a mandate, to regularly declare whether they are in a conflict of interest situation, to make a periodic declaration of pecuniary interests and to produce a solemn pledge of confidentiality;
- There is no proof of approval of promises to purchase by an authorized City representative;
- A promise to purchase was concluded between the City and a buyer without obtaining written authorization from the borough and without officially requesting a market value assessment report;
- Proof of compliance with the contractual clauses set out in the notarial deeds is not always documented;
- The mechanisms in place do not make it possible to track, control and report on processing times for the various real estate transaction processes.

4. Audit Results

In June 2015, the executive committee approved the new Service de la gestion et de la planification immobilière (SGPI) organizational model. A restructuring process was undertaken for the purpose of implementing it. By approving this new organizational model, the executive committee also authorized the creation of four departments as well as their mandates.

For the purposes of this audit, we were particularly interested in the mandate of the Direction évaluation et courtage immobilier / sécurité, which is to:

- manage the acquisition and sale of immovables and the real property rights required to meet the objectives related to improvement of the urban environment and economic development of the City;
- establish property values;
- develop and deploy the means to implement an integrated management approach aimed at acquiring immovables over the medium and long term in order to anticipate and meet

the land reserve needs for urban development (urban infrastructure, economic development, residential, commercial and industrial sectors);

- Identify real estate needs and the urban development vision of departments and boroughs, when mandated, so as to implement a real estate strategy to satisfy future development needs.

Certain aspects of the mandate are already in place, namely those regarding the management of real estate transaction files and the establishment of property values. However, according to the information obtained, measures have not yet been taken to implement an integrated management approach aimed at acquiring immovables over the medium and long term. This would involve putting together a land reserve to meet the City's future needs and providing real estate funds to be able to take advantage of business opportunities that arise. Lastly, with regard to the fourth aspect of the mandate, the activities are currently carried out by the Section des stratégies immobilières, which is presently under the Direction planification, assurance qualité et service à la clientèle.

We also looked at one aspect of this department's mandate: management of the inventory, archives, databases and computer applications related to the City's property assets. More specifically with regard to land (used for municipal purposes or intended for resale), inventory management and updating are performed exclusively by this department.

As we mentioned in the introduction, in an effort to determine avenues for improving the processes in place, a Kaizen exercise³ was held in fall 2013 within the Division évaluation et transactions immobilières.⁴ The exercise targeted the following eight business processes:

- Acquisition;
- Acquisition of servitudes;
- Public call for tenders/proposals;
- Exclusion of ecoterritories;
- Releases;
- Lane transfer;
- Sale of leftover land valued at less than \$25,000;
- Sale by agreement.

According to the information obtained, the purpose of the exercise was to improve and standardize procedures within the division itself. The processes were therefore deployed starting in June 2014. It should be mentioned that even though these processes underwent

³ The Kaizen approach is a continuous improvement process. The expected results are workflow simplification, quality improvement, reduced processing times and increased productivity.

⁴ Which, after the restructuring, became the Direction évaluation et courtage immobilier / sécurité.

an evaluation using Kaizen, the activities involved had nevertheless existed for several years despite numerous restructuring operations.

During our audit, we focused on sale and acquisition transactions valued at over \$25,000. We began by examining whether preliminary analyses of real estate transactions had been conducted as set out in the processes. Second, we looked at certain aspects surrounding the completion of real estate transaction files, such as the existence of administrative frameworks, how the sale or acquisition price was determined, authorization by officials, documentation and archiving. Moreover, our audit also dealt with the monitoring of contractual clauses and follow-up and control mechanisms used to manage the real estate transaction files. Third, we looked at accountability reporting on real estate transactions.

We therefore examined six real estate transactions on a test basis: four sales by agreement and two acquisitions. In addition, for the monitoring of contractual clauses, we examined on a test basis three real estate transactions officially approved in 2013.

4.1. Receipt of Requests and Preliminary Analysis

4.1.A. Background and Findings

According to the information obtained, the Section des stratégies immobilières is involved in the real estate transaction process as soon as it receives a request to acquire or sell land. In the case of acquisitions, the clients are the central departments and boroughs, whereas for disposals, they can also be external clients. Furthermore, while boroughs are not obliged to make a request to the section, the number of requests received is apparently on the rise. The manager states that requests are also made directly to the Direction évaluation et courtage immobilier / sécurité. In such a case, both units have agreed for these requests to be sent back to the Section des stratégies immobilières for preliminary analysis.

For acquisitions, one of the first steps in the preliminary analysis is to evaluate clients' needs in order to propose land that will meet them. Based on agreed-upon search criteria, a search is conducted in the City land database. If the search is unsuccessful, it is extended to the private market. For potential land, a project feasibility analysis is conducted and a preliminary estimate of the market value is requested as needed from the Section de l'évaluation immobilière. This estimate is used to determine whether the client has the necessary budget to move forward. A financial analysis may also be conducted to help the client make a decision. Once a piece of land is chosen, a mandate is given to the Direction évaluation et courtage immobilier / sécurité to complete a real estate transaction.

Regarding the involvement of the Section de l'évaluation immobilière, we obtained information to the effect that it should be involved not only in preliminary estimates, but also in terms of recommending one piece of land over another. It should be noted that in the current acquisition process, the Section de l'évaluation immobilière is only mandated when a market value assessment is required. According to this method of operation, its involvement begins well after the mandate has been given to the Direction évaluation et courtage immobilier / sécurité. A piece of land that is thought to be potentially worthwhile for the Section des stratégies immobilières to acquire could therefore turn out to be a less attractive option following a more in-depth examination. For example, it could be shown that acquisition of the lot in question should be done by expropriation rather than by agreement, which, for the City, would have a direct impact on the acquisition cost and the time required to conclude the transaction. To avoid such situations, the involvement of the Section de l'évaluation immobilière from the start of the process would provide the Section des stratégies immobilières with useful information for land selection.

In the case of a request involving the sale of land, the analysis performed by the Section des stratégies immobilières consists in determining whether it is earmarked for municipal functions and then conducting a search for the property titles. According to the information obtained, the purpose of the analysis is to ensure that the sale of the land is indeed planned strategically.

As part of our audit, we sought proof, through the files surveyed, that a preliminary analysis had been conducted by the Section des stratégies immobilières prior to the opening of the files by the Direction évaluation et courtage immobilier / sécurité and that it had been made available to the parties involved. In this respect, we found proof of a preliminary analysis performed prior to the mandate being assigned for two of the six transactions examined. For the four other transactions, the steps of the preliminary analysis process were performed instead by the real estate advisor assigned to the transaction. This situation increases the amount of time spent on these transactions by the real estate advisors in the Section des transactions immobilières.

Moreover, according to the real estate advisors consulted, in general, the preliminary analysis would be of little use to them since they have to revalidate the information obtained. Furthermore, the information shared would, in some cases, be incomplete, making it necessary to contact the Section des stratégies immobilières or other stakeholders involved in the file to obtain it (e.g., geomatics opinion missing from the file).

In addition, we mentioned previously that the Section des stratégies immobilières currently performs the fourth aspect of the mandate assigned to the Direction évaluation et courtage

immobilier / sécurité, i.e., identify the departments' and boroughs' urban development vision to establish a real estate strategy to meet future development needs. Since not all the borough requests are necessarily received by the Section des stratégies immobilières, we question the development of actual real estate strategies. We believe that this situation may cause the City to negotiate land to meet specific needs without having a strategic vision. The City could therefore find itself in a vulnerable position when it comes to negotiating an acquisition or sale price, as the case may be.

We feel that clarification is needed with regard to the expected role and responsibilities of the Section des stratégies immobilières to enable the City to establish a strategic vision of the future needs of clients.

4.1.B. Recommendation

We recommend that the Service de la gestion et de la planification immobilière clarify the role and responsibilities of the Section des stratégies immobilières in the real estate transaction management process to enable the City to establish a strategic vision of the needs of clients and also to reduce real estate transaction processing times.

Business unit's response:

[TRANSLATION] The role and responsibilities of the Section des stratégies immobilières in the real estate management process will be updated as part of the current restructuring of the SGPI. (Planned completion: December 2016)

4.1.C. Recommendation

We recommend that the Direction générale require all boroughs to provide the Service de la gestion et de la planification immobilière with their land acquisition and disposal needs in order to meet future development needs so that it can fully exercise its role in establishing real estate strategies on the territory.

Business unit's response:

[TRANSLATION] As a first step, the Direction générale will send borough directors a note to this effect. (Planned completion: April 2016)

In the medium term, the administration will examine the possibility of grouping together all real estate activities under the SGPI, allowing it to take on the leadership and planning required to carry out its mandate. (Planned completion: March 2017)

4.2. Real Estate Transactions

When the Direction évaluation et courtage immobilier / sécurité receives a mandate to conduct a real estate transaction, file processing must be guided by recognized administrative frameworks and business processes.

4.2.1. Administrative Frameworks

4.2.1.A. Background and Findings

The management of real estate transactions is governed by administrative frameworks dealing with certain types of transactions. The purpose of these frameworks is mainly to enable staff members to understand what is expected of them and inform them of the extent of their freedom of action. They consist of the following directives:

- The transfer of lanes to riparian owners⁵ (April 2011);
- Transactions between school boards and the Ville de Montréal⁶ (July 2012);
- The terms and conditions of the sale of plots of land, leftover land and parts of lanes valued at \$25,000 or less⁷ (August 2009).

We found that these frameworks dealt with two processes that were subject to the Kaizen analysis: the sale of lanes and the sale of land valued at less than \$25,000. The other types of transactions, namely the other sales by agreement or the sales by call for proposals or tenders as well as acquisitions, are not subject to any official administrative framework. According to the managers we interviewed, these types of transactions are governed instead by standards of good practice within the Direction évaluation et transactions immobilières / sécurité.

We feel that it would be beneficial for these rules to be set out in administrative frameworks. As long as these rules are not official, we believe there is a risk that the staff neglects to apply them or does not apply them consistently.

With regard more specifically to land disposals, the managers we interviewed mentioned the ability to choose a method of alienation (by public call for proposals or tenders, or by agreement). According to the information obtained, the choice is made collectively by the Section des transactions immobilières and the Section des stratégies immobilières or the borough involved. During our audit, it was unclear whether official criteria had been established to guide the parties involved in making a choice. In such a situation, the parties

⁵ C-OG-SCARM-D-11-001.

⁶ C-OG-SCARM-D-12-002.

⁷ C-OG-SMVTP-D-09-001.

involved could set inconsistent criteria from one transaction to another, which could potentially be unfair.

We feel that the SGPI should ensure that the administrative frameworks cover all real estate transactions so that the application of recognized practices remains consistent over the years. The failure to provide a framework for transactions exposes the City to the risks of not getting the best price for sales and paying too much for acquisitions, or not applying the same practices for similar transactions.

4.2.1.B. Recommendation

We recommend that the Service de la gestion et de la planification immobilière ensure that it has official administrative frameworks for all the types of transactions in order to standardize procedures and be fair to all potential buyers.

Business unit's response:

[TRANSLATION] The SGPI will produce administrative frameworks for all of its processes associated with real estate transactions. (Planned completion: April 2017)

4.2.2. Land Sale and Acquisition Processes

4.2.2.A. Background and Findings

Recognized business processes must provide consistency in the procedures performed by the staff involved in file processing. In this section, we will discuss the notion of conflicts of interest, market value assessment and evaluation of the agreed price, preparing the decision-making record to allow officials to make an informed decision as well as archiving files, monitoring contractual clauses, and follow-up and control mechanisms.

4.2.2.1. Notion of Conflicts of Interest

4.2.2.1.A. Background and Findings

Mechanisms for the disclosure and management of conflicts of interest exist within the City. As stipulated in the guide to the *Code of Conduct of Ville de Montréal Employees*, an employee who finds him or herself in a conflict of interest situation is required to submit a confidential report that will be evaluated by the comptroller general (self-declaration report). Very often, employees are only informed of it when they are hired or when the *Code of Conduct* is updated. The real estate advisors we interviewed all stated that they were aware

of the notion of conflict of interest in the context of their work. They are required to disclose any conflict with a party to a transaction from the moment the mandate is assigned to them, and, if necessary, the mandate will be assigned to another real estate advisor. These measures are taken to ensure that transactions are transparent and are performed at the best cost for the City.

Certain organizations require that their employees make regular declarations, even when there are no conflicts to declare. Asking employees to provide this type of declaration is useful in assuring management that they have thought about conflicts of interest and have taken them into account. At the City, top executives must submit a declaration of pecuniary interest when they are initially hired and, subsequently, on a yearly basis.

Although this audit did not uncover any problems with regard to conflicts of interest, past audits and recent police investigations have revealed cases of such, including in the area of real estate transactions. At the City, the activities of the Direction évaluation et courtage immobilier / sécurité fall under sectors that should be considered high risk and that, in our opinion, merit special attention. We feel that an official process must be implemented to allow all employees involved in the real estate transaction process to make a declaration of independence at the start of the mandate, to regularly declare whether or not they are in a conflict of interest situation, to make a periodic declaration of pecuniary interests and to produce a solemn pledge of confidentiality.

4.2.2.1.B. Recommendation

We recommend that the Service de la gestion et de la planification immobilière implement the appropriate mechanisms to allow all employees involved, based on the type of real estate transaction, to declare their independence before the start of a mandate, to regularly declare whether or not they are in a conflict of interest situation, to make a periodic declaration of pecuniary interests and to produce a solemn pledge of confidentiality to demonstrate the transparency and objectivity of the process and the decisions made.

Business unit's response:

[TRANSLATION] The SGPI will create a declaration of independence and conflict of interest form that each manager will have to complete and sign at the beginning of a mandate. This form will be added to the file. (Planned completion: June 2016)

The SGPI will create a periodic declaration of pecuniary interests form including a solemn pledge of confidentiality that each employee responsible for recommending real estate transactions will have to complete and sign once a year. These

declarations will be kept by the first-level manager. (Planned completion: June 2016)

4.2.2.2. Appraisal and Agreed Price

4.2.2.2.A. Background and Findings

Real estate transactions must be conducted in a manner that is fair and cost-effective for the City. While the processes for each type of transaction vary, a fundamental principle to adhere to remains that of negotiating a price that reflects the market value. Before beginning the negotiation process, the real estate advisor must have an independent appraisal report for the land, prepared at his or her request by the Section de l'évaluation immobilière. Although this section is part of the same department as the Section des transactions immobilières, it remains independent, mainly because the appraiser does not participate in the negotiations or decision-making related to the transaction. A market value range is established by the latter and guides the advisor in the negotiation process. The price agreed on between the parties must be within this range; otherwise the advisor must have it approved by his or her superior. Market values established in an appraisal report are considered valid for a period of 18 months. If the time elapsed between the date of the appraisal report and presentation of the file to officials is greater than 18 months, the process calls for the real estate advisor to request an update of the appraisal to ensure the price agreed on for the real property still represents its market value.

Our audit consisted first in seeking proof that an appraisal report had been obtained at the appropriate time and that the agreed price determined fell within the range of the market value assessment. We therefore did not question the market values presented in the appraisal reports. Only one transaction presented a problem with regard to obtaining an appraisal report at the appropriate time. Our findings are as follows.

To begin with, the developer had informed the borough of his interest in acquiring several plots of land belonging to the City with a view to piecing them together with land that he already owned in the sector. The initially proposed project included two development phases and involved plots A and B. When the Section des stratégies immobilières mandated the Section des transactions immobilières in January 2014, it stressed that the borough had confirmed its agreement to sell plot A and that, subsequently, when the borough so desired, the sale of plot B could be handled. Given that this project did not comply with the urban planning regulation, specifically in terms of height and density, a request to modify the City plan in accordance with this project was in the process of being approved when the mandate was transferred. An appraisal report was obtained in March 2014, before the start of

negotiations between the parties; however, this report only covered one of the two plots that would ultimately be involved in this sale transaction.

In April 2014, the real estate advisor was informed during discussions with the purchaser that the latter wanted to acquire plot B and plot C first. The parties agreed on a price for these plots despite the fact that the borough's initial agreement only covered plot A. The total agreed amount of the transaction was more than 5.3 million dollars.

Subsequently, in May 2014, the Office de consultation publique de Montréal tabled its recommendations regarding the developer's first project. At that time, discussions between the parties continued with a view to reaching an agreement on all aspects of the transaction, such as special obligations and clauses. As previously mentioned, a promise to purchase for plots B and C was nonetheless signed several months later, in September 2014. However, the request for an appraisal report for these plots was made only in November 2014 and was only obtained in January 2015, four months after the promise to purchase was signed. The agreed price was nevertheless within the market value range established at the time this plot was appraised.

Furthermore, this transaction was conditional on the purchaser's consent to promise to sell belts of land that he owned to the City to allow it to one day widen a street. However, we also found that no appraisal report had been produced to support the agreed price for this promise to sell.

We feel that by not having an appraisal report for one of the two plots at the time of negotiating and signing the promise to purchase in September, the real estate advisor was putting the City at risk of concluding a different price than that recommended in an impending market value assessment. Moreover, the advisor should have obtained written agreement from the borough before proceeding with negotiations with the purchaser, on the one hand to avoid needlessly putting efforts into a mandate that ultimately may not receive the required acceptance from the borough and, on the other hand, to avoid presenting it with a *fait accompli*. What's more, plot C was not part of the real estate development for which a modification to the City plan was in the process of being approved by the borough.

This transaction therefore seemed problematic to us, not only due to the absence of an appraisal report, but also due to the absence of proof of the prior consent of the borough in question at the time the parties agreed on a price. According to established practice, this consent must be obtained as part of the preliminary analysis of the mandate carried out by the Section des stratégies immobilières, and the real estate advisor must be sure to have it in the file when he or she undertakes the mandate.

We feel that the validation of the promise to purchase should be performed using a checklist to ensure the presence of an appraisal report for the real property in question, the approval of the borough and any other element that should be documented at this step in the process. This list must, of course, be approved by a manager and kept in the file.

Second, our audit consisted in ensuring that the elements discussed during negotiations were documented. In general, for the files analyzed, we found that the dates and amounts of the respective offers of the parties to the negotiations are not always indicated in the files. Also, we found no documentation or references to the information used during the course of the negotiations, such as zoning characteristics or an ongoing regulatory modification process. We did not find any documentation regarding the inclusion of special obligations or clauses (e.g., restricted use of a good (no-building servitude) or a transaction subject to a condition or promise (letter of guarantee)). We found no directive stipulating the terms of a negotiation framework. We feel that the negotiation process would benefit from being better defined in order to show that it is conducted in a transparent manner. We would have expected these elements, impacting not only on the price but also the other aspects of the transaction, to be recorded in the file in order to demonstrate that the agreed price represents the best value. Some of this information could, for example, be recorded in the transaction summary.

4.2.2.2.B. Recommendation

We recommend that the Service de la gestion et de la planification immobilière create a checklist to be approved by a manager before signing the promise to purchase and keep it in the transaction file to demonstrate that all the steps of the process have been followed.

Business unit's response:

[TRANSLATION] The SGPI will create a checklist to be approved by the first-level manager before a promise to purchase is signed. This checklist will be added to the file. (Planned completion: December 2016)

4.2.2.2.C. Recommendation

We recommend that the Service de la gestion et de la planification immobilière establish a negotiation framework and include all the relevant information in the files in order to standardize practices within the unit.

Business unit's response:

[TRANSLATION] The negotiation framework will be established when the administrative frameworks discussed in recommendations 4.2.1.B. and 4.2.2.2.B. are drafted.

Creation of the administrative frameworks discussed in recommendation 4.2.1.B. will ensure the standardization of practices within the unit. (Planned completion: December 2016)

4.2.2.3. Authorization by Officials

4.2.2.3.A. Background and Findings

City council is responsible for approving real estate transactions valued at over \$25,000. It therefore needs to be able to rely on the information conveyed to it in decision-making records. In the transaction described above, we observed that the decision-making record submitted to officials did not present all the aspects involved in the transaction pertaining to the impending adoption of the Programme particulier d'urbanisme in that sector. Certain information would have provided officials with a more complete picture, necessary for making an informed decision, such as the status of the other transactions in progress, the anticipated costs of the land exchange strategy with this developer, as well as the costs of a potential expropriation, in the event it was not possible to come to an agreement with the developer. The combined transactions, as initially presented, were supposed to cost the City close to nothing, which now seems less likely. We realize that, in certain cases, it is not advisable to publicly share the City's negotiation strategies and positions; however, a communication protocol should be established to remedy this situation.

4.2.2.3.B. Recommendation

We recommend that the Service de la gestion et de la planification immobilière make sure to present a decision-making record that includes all the relevant elements that could impact decision-making in order to ensure greater transparency.

Business unit's response:

[TRANSLATION] The SGPI will create a checklist for employees who draft decision-making summaries. (Planned completion: December 2016)

4.2.2.4. Documenting and Archiving

4.2.2.4.A. Background and Findings

Guidelines should be established that formally address documentation and the organization of transaction records as well as document retention standards. During our audit, we found no formal guidelines dealing with these aspects, and several shortcomings were observed.

First, with regard to file documentation, our audit revealed that evidence was often missing to show the decisions made or actions taken at certain steps of the process. For example, the choice of acquisition or alienation method was not explicitly presented in the files analyzed. In some situations, the choice may seem clear, while in others, two methods may apply; for example, a disposal by call for proposals or by mutual agreement. We would have expected the factors guiding one choice over another, such as an options analysis, to be documented and referenced in the transaction records. Furthermore, we would have expected reviews and approvals at certain key steps in the processes to be documented. Our audit revealed instead that evidence of reviews and approvals was not necessarily retained and documented (e.g., determination of the agreed price, promises to purchase).

Certain files were better organized and more complete than others. The transaction records did not always contain key documents. Advisors therefore had to go back into their personal note file, inbox or personal directory to retrieve the information. Certain files that had been completed months ago had still not been archived. One archived file contained a document related to another file. Some advisors were surprised to find that documents believed to be archived were not in the archived file or were misfiled.

Given the involvement of various stakeholders in a real estate transaction, special attention must be given to these aspects as well as to maintaining the centralized database and to the accesses granted to it. The *Gestion des mandats* application is the management tool used by the Direction évaluation et courtage immobilier / sécurité. We observed that this tool is accessible to all users in **read** mode and to the project manager and section head in **write** mode. It is therefore important that the staff be made aware of the highly confidential nature of the information recorded in it so as not to influence the course of a transaction. For market value assessment files, it seems that both the physical files stored and the digital information kept in the network directory are only accessible to staff members responsible for **appraisals**. While a clear directive to this effect was apparently issued a few years ago, the individuals we interviewed could not provide any proof of this. In our opinion, such a directive and regular reminders are essential.

We also feel that the Section des transactions immobilières would benefit from creating a standard form and checklist for its files, as well as a standardized approach to document retention to ensure that procedures are followed and are not inadvertently forgotten.

4.2.2.4.B. Recommendation

We recommend that the Service de la gestion et de la planification immobilière implement a methodology on how to document, organize and retain documents in the transaction files to promote greater transparency and standardize procedures.

Business unit's response:

[TRANSLATION] The SGPI will create a list of documents to be added to the file at the close of a mandate.

*On January 14, 2016, the SGPI launched a document management and archiving tool called ULTIMA. This tool allows users to add documents to the file electronically and search for them at a later time. This will improve document organization and retention and is in line with this recommendation. **(Planned completion: December 2016)***

4.2.2.4.C. Recommendation

We recommend that the Service de la gestion et de la planification immobilière draft the directive on document management to restrict access to documents and make the staff aware of their highly confidential nature.

Business unit's response:

*[TRANSLATION] The SGPI will create a directive on document management for employees who carry out real estate transactions and monitor them. **(Planned completion: April 2017)***

4.2.2.5. Monitoring of Contractual Clauses

4.2.2.5.A. Background and Findings

When transactions consist in disposing of land with a view to carrying out a specific project, the City must be able to require that the purchaser use it for the intended purpose, thus avoiding all speculation. To do so, obligations or conditions are stipulated in the notarial deeds (e.g., construction obligations, access to land). For the City, this requires monitoring until the purchaser complies with them. Due to these conditions, even though the deed of sale is signed between the City and the purchaser, the sold property will only be released of

guarantees once the release⁸ is granted to the purchaser. Accordingly, a release clause inserted in the deed of sale stipulates the point at which the City intends to release the purchaser of his or her obligations or conditions.

A directive approved by the executive committee in March 2012 details the exercise of powers to grant a release of real rights, delegated to the director of the Direction évaluation et courtage immobilier / sécurité. Per this directive, the official must ensure that all obligations or conditions set out in the release clause are met and must retain evidence to this effect. More specifically, *[TRANSLATION] “if authorizations, permits or proof of compliance with the regulations are required, the borough in question must provide **written confirmation**⁹ that these have been obtained or followed.”*

As part of our audit, we first examined the point at which the City grants its releases. We also looked for evidence that the Direction évaluation et courtage immobilier / sécurité had followed up on the obligations or conditions stipulated in the notarial deeds with a view to granting a release to the purchaser. To this end, we analyzed three notarial deeds of sale signed in 2013 that included obligations or conditions for the purchaser.

The selected deeds of sale contained at least a build obligation, but also included various other obligations or conditions. It should be noted that at the time of our audit, a release had not yet been requested by the purchaser in one of the cases examined.

First, upon reading the release clauses contained in the notarial deeds, we found that they do not enable the City to have a guarantee that **all** the conditions stated in the deed of sale have been met.

The three deeds examined included a clause regarding the obligation to build, which stipulated that construction work is deemed complete when the foundations, walls, exterior finish, windows and roof are installed on the building. The three notarial deeds also included a release clause that could be granted, at the purchaser’s request, once the buildings’ foundations had been poured and a building permit meeting the construction conditions¹⁰ had been issued.

We understand that the purchaser must obtain a release to get the financing required for construction of the building. We also understand that releases are granted in accordance with

⁸ Act by which the creditor waives the effects of a security guaranteeing the fulfilment of obligations or conditions, which translates into the record of such security being struck from the land register.

⁹ Our emphasis.

¹⁰ For example, the number of units, the number of storeys or the surface area.

the requirements of these clauses; however, we feel that at the time the City grants these releases, the purchaser has not met all the obligations or conditions since construction is not complete. Although the notarial deeds include a clause stating that the City reserves all rights and recourse regarding the obligations undertaken, it remains that the City no longer has a real guarantee that the obligation to build will be met. Considering the importance of including a build obligation clause, we feel that the City should take the necessary measures to conserve the guarantees that would allow for obligations to be monitored until they are met.

Second, with regard to monitoring contractual clauses, our audit did not demonstrate that all the proofs or declarations of fulfilment of the obligations or conditions had been obtained. The verifications performed sometimes consist in obtaining a verbal confirmation from the real estate advisor in charge of the transaction or assuming that verifications were made by the borough upon issuing a building permit. In one case where we did not find any proof, the person responsible for the file told us that this was a standard clause for this type of transaction but that it was not applicable for this particular transaction. We would have expected to find a note to this effect in the file.

As previously mentioned, we did not obtain evidence of a formal follow-up to ensure the fulfilment of all the obligations stipulated in the notarial deeds of sale. This situation is mainly due to the fact that certain obligations or conditions were not specifically required to obtain the release. According to the information obtained, verifications are carried out, but only for the purpose of producing a release. The responsibility for follow-up is not clearly defined in this respect. Follow-up may be performed by the real estate advisor or by the technical support manager.

Considering all of these findings, we feel that the transaction records should contain:

- A checklist establishing all of the conditions or obligations placed upon the purchaser;
- The steps taken to gather the required proof for each of the conditions and obligations;
- A record of the proof obtained;
- Justification of the clauses not requiring any particular proof.

This would make it much easier to monitor compliance with contractual clauses and it would furthermore make it possible to demonstrate that all the documents required to prove compliance have been obtained. We also feel that the Direction évaluation et courtage immobilier / sécurité must take the necessary steps to clarify the division of roles and responsibilities of the parties involved in the monitoring of contractual clauses to ensure compliance with the framework on releases.

4.2.2.5.B. Recommendation

We recommend that the Service de la gestion et de la planification immobilière take the necessary steps to conserve the guarantees until total fulfilment of the build obligation stipulated in the notarial deed to ensure that the construction project is carried out as authorized by the City.

Business unit's response:

[TRANSLATION] The SGPI will determine the means and the ways to exercise them when it creates the administrative frameworks discussed in recommendation 4.2.1.B., specifically when it drafts the frameworks on the sale of land by agreement and the sale of land by public call for tenders when such sales include an obligation to build. (Planned completion: April 2017)

4.2.2.5.C. Recommendation

We recommend that the Service de la gestion et de la planification immobilière document all the actions taken during verifications and conserve the proofs demonstrating compliance with the contractual clauses set out in the notarial deeds to comply with the directive on releases as well as to exercise any possible remedy in the event of non-compliance with these clauses.

Business unit's response:

[TRANSLATION] The SGPI will create a monitoring report to be completed by the employee in charge of monitoring and added to the file.

The proofs gathered during this monitoring will be documented and added to the file. Use of the ULTIMA tool (see recommendation 4.2.2.4.B.) will help improve conservation of such proofs. (Planned completion: December 2016)

4.2.2.5.D. Recommendation

We recommend that the Service de la gestion et de la planification immobilière clarify the division of roles and responsibilities of the staff involved in monitoring the contractual clauses set out in the notarial deeds to ensure compliance with the directive on releases.

Business unit's response:

[TRANSLATION] The SGPI will determine the roles and responsibilities of each stakeholder involved in contract monitoring when creating the administrative

frameworks discussed in recommendation 4.2.1.B., specifically when it drafts the framework on monitoring obligations. **(Planned completion: April 2017)**

4.2.2.6. Monitoring and Control Mechanisms

4.2.2.6.A. Background and Findings

Several steps are involved in the various real estate transaction processes, and these concern a number of stakeholders from other business units (e.g., land surveyors, appraisers, notaries) or external to the City (e.g., the buyer, the seller). Considering the number of transactions as well as the associated processing times, efficient tools must be accessible to enable the staff involved to monitor the files to which they have been assigned on a daily basis. These tools must also allow for the production of pertinent management reports for follow-up and control purposes.

File monitoring is performed using the *Gestion des mandats* application. Initially, when a mandate is received by the Direction évaluation et courtage immobilier / sécurité, the manager in charge assigns the file to an advisor and gives it a priority ranking. A file is opened in the application, and then each of the advisors enters various information enabling them to monitor the progress of their files. This includes the date of the various requests to the professionals involved (e.g., the land surveyor, the appraiser, the notary), the date expected reports are received, the record of various actions carried out, the date decision-making records are finalized as well as the date the file is closed.

It should be noted that the *Gestion des mandats* application is actually a database from which data can be extracted and analyzed in an excel spreadsheet. For management purposes, reports have been produced by the Direction évaluation et courtage immobilier / sécurité. During our audit, we examined how managers were able to monitor transactions using these reports.

First, we found that reports could be produced listing the transactions in progress and those that are closed according to various criteria (e.g., by employee, for a given period). We also found that other reports provide information on the mandates given to land surveyors and notaries. With regard to monitoring mandates with land surveyors, a list of priority requests is sent to them. This list is reviewed monthly by the manager responsible for the Section des transactions immobilières. For monitoring mandates with notaries, reports enabling requests are sent to them to be followed up. These contain the request and receipt dates. We also noted that target deadlines are sometimes indicated but only in a small proportion. In a report dated September 1, 2015, for example, we found that out of 72 requests under way, a target deadline had been entered for only 26 files (36%). In the case of files indicated as

completed,¹¹ we found that the target deadline had been entered for only 71 out of the 160 files listed (i.e., 44%).

According to the information obtained, reports allowing for the management of transaction times have not yet been produced. Despite this, in the course of our audit, we obtained a copy of the database in order to assess transaction times. First, we examined the processing times for closed files relating to acquisition and sale by agreement transactions. The period covered was from January 1, 2014, to August 31, 2015.

For the purposes of our analysis, we considered the time span between the opening and closing dates of a file in the application. According to the information obtained, it can take about a week from the time the mandate is received to the time the file is created in the system. We did not take this time into account in our analysis. In terms of the closing date of a file, we took into account the date entered by the employee in charge of closing the file following its approval by authorities or its discontinuation.

Our analysis revealed the following results, as shown in Table 2:

**Table 2 – Processing Times for Completed Transactions
From January 1, 2014, to August 31, 2015**

	Acquisitions	Sales by agreement
Completed transactions	23 (33%) 1,479 days (4.05 years)	45 (35%) 976 days (2.67 years)
Discontinued transactions	47 (67%) 1,443 days (3.95 years)	83 (65%) 856 days (2.35 years)
Total – Closed files	70 (100%) 1,455 days (3.99 years)	128 (100%) 898 days (2.46 years)

Source: *Gestion des mandats*.

With regard to the closing date, our audit revealed that there were different interpretations. For some, this refers to the date on which the decision-making record is finalized, and for others, it is the date on which the signed notarial deed is received. For clarification purposes, we should specify that the transaction finalization requires the creation of a decision-making

¹¹ Date of approval of the draft notarial deed.

record to be submitted to the authorities, which includes all the actions of the business units involved in the transaction. It is only following the approval by authorities that the signed notarial deed is obtained and, finally, payment is received for the sale or is made in the amount of the acquisition. In addition to these discrepancies in interpretation, there is also the fact that certain employees can react less promptly than others with regard to closing files, which can create delays. According to the information obtained, there is no clear directive defining this date. We feel that the Direction évaluation et courtage immobilier / sécurité should decide on a definition of the closing date as well as on the time limit for an employee to close a file. Establishing guidelines would help to guide employees and provide users with comparable data.

Second, we examined processing times for open files as of August 31, 2015. For the purposes of our analysis, we grouped together files according to the priority level indicated in the application. There are three possible categories to be assigned: priority “1” is for urgent files, priority “2” is assigned by default, and priority “3” is for files that have been put on hold. According to the information obtained, not only is a priority assigned when the mandate is opened, but it can also be modified during the process. The results of our analysis are presented in Table 3 below:

Table 3 – Processing Times for Transactions in Progress as of August 31, 2015

	Acquisitions	Sales by agreement
Priority 1^[a]	16 (16%) 544 days (1.5 years)	17 (9%) 588 days (1.6 years)
Priority 2^[b]	76 (79%) 832 days (2.3 years)	151 (84%) 954 days (2.6 years)
Priority 3^[c]	5 (5%) 1,267 days (3.5 years)	12 (7%) 1,403 days (3.8 years)
Total – Open files	97 (100%) 807 days (2.2 years)	180 (100%) 949 days (2.6 years)

^[a] File that must be handled urgently.

^[b] File to be handled in the normal course of business.

^[c] File put on hold.

Source: *Gestion des mandats*.

Considering that approximately 80% of files are of priority level 2 and that we are unable to ascertain their progress with regard to set deadlines, we question the actual usefulness of this information in its current form.

At first glance, all of the processing times appear long to us, for both the closed files and the files in progress in Table 3. Having long processing times presents several risks for the City: for example, transactions could fall through mid-process, promises to purchase could become invalid and need to be renegotiated or market value assessments could no longer reflect the market.

Given such results, we would have liked to determine the bottlenecks in the existing processes; however, we were unable to perform such an analysis since most of the dates of the various steps in the process had still not been entered in the application. As a result, we are unable to determine, for any of the files, which steps may have been at issue. The information is nevertheless available in each of the physical files. Thus, in the course of examining the six real estate transaction files, we were able to find the dates of the various steps involved in the process. For the six files examined, the overall transaction processing time was a little over 800 days, which is comparable to the results presented in Table 2. In terms of processing times for the main steps, we observed two that were longer. These were the negotiation time, which represents close to 400 days, and the time for notaries to act, which is approximately 120 days. This is the time it takes from the date of a request for action in the decision-making summaries to the date of receipt. We are unable to say whether this is generalizable to all the files.

It should be noted that in 2015, the manager in charge of the Section des transactions immobilières had raised an issue with timeframes surrounding files sent to land surveyors, although the application does not provide this information. A special report listing times according to various request categories had been produced and had led to establishing priorities with the manager in charge of geomatics. This is what prompted the report that we discussed earlier. Accordingly, a priority level is assigned to files in progress on a monthly basis by the manager of the Section des transactions immobilières. While we were not in a position to evaluate the effects of the improvements made, we believe it is a good approach.

In an optic of continuous improvement and customer service, we feel that in addition to showing the time elapsed at each step in the transactions, reports should contain the information needed to quickly determine the progress of transactions, which would in turn make it possible to identify potential bottlenecks and to react more promptly when issues arise. It goes without saying that in order for this to happen, stakeholders must enter all the data in the *Gestion des mandats* application.

In order to be in a position to reduce times, particularly where bottlenecks occur, and in cases where the issue resides with other business units involved in the transactions, we feel that the Direction évaluation et courtage immobilier / sécurité should agree on standard processing times with the heads of each business unit involved so as to be able to plan requests at the proper time. Subsequently, when making requests to the various professionals, advisors should provide deadlines and follow up on them to ensure they are met.

In order to address all of these problems, we feel that the *Gestion des mandats* system in its current form should be improved to better support the operational process of the real estate transactions. Since current follow-up mechanisms do not make it possible to track the status of transactions, the addition, for example, of a field in which to indicate the progress of the transaction would allow the manager to better monitor the progress of files.

4.2.2.6.B. Recommendation

We recommend that the Service de la gestion et de la planification immobilière define the closing date to be used to calculate the overall processing time for a transaction so that all employees enter data in the *Gestion des mandats* application in a consistent manner.

Business unit's response:

*[TRANSLATION] The SGPI considers a mandate closed on the date the notarial deed is published (subject to receipt of the proof of payment in the case of a sale). This date will be entered as the mandate closing date in the *Gestion des mandats* application.*

Note: This information will be included in the administrative frameworks discussed in recommendation 4.2.1.B. (Planned completion: April 2016)

4.2.2.6.C. Recommendation

We recommend that the Service de la gestion et de la planification immobilière take the necessary measures to ensure that all members of staff involved in the handling of real estate transactions enter all the relevant data, including the dates of the various requests, in the *Gestion des mandats* application in order to identify bottlenecks in the real estate transaction processes.

Business unit's response:

[TRANSLATION] The SGPI will determine the actions and means at its disposal to ensure that the staff involved in handling real estate transaction files enter all the relevant data, including the dates of the various requests, in the Gestion des mandats application. (Planned completion: June 2016)

4.2.2.6.D. Recommendation

We recommend that the Service de la gestion et de la planification immobilière produce management reports providing information on the overall processing times for the various real estate transaction processes to improve real estate transaction management and customer service.

Business unit's response:

[TRANSLATION] The SGPI will develop management reports providing information on overall processing times for the various real estate transaction processes. (Planned completion: April 2017)

4.2.2.6.E. Recommendation

We recommend that the Service de la gestion et de la planification immobilière review the parameters of its *Gestion des mandats* system to add fields that make it easier to track the progress of transactions to provide management reports that better meet the needs of managers.

Business unit's response:

[TRANSLATION] On January 14, 2016, the SGPI added fields to the Gestion des mandats application related to project management in which employees enter the steps required to complete a given transaction as well as the time allocated for each step. The SGPI will use these data to create management reports on the progress of mandates. (Planned completion: April 2017)

4.2.2.6.F. Recommendation

We recommend that the Service de la gestion et de la planification immobilière establish, in collaboration with the business units involved in the real estate transaction processes, set deadlines for performing the various requests to facilitate priority management and allow for follow-up of realistic deadlines.

Business unit's response:

[TRANSLATION] The SGPI will ask its partner suppliers involved in transaction processes to provide standard completion times for each of the expected deliverables. These completion times will be used in the deadline fields provided for this purpose in the Gestion des mandats application. (Planned completion: April 2017)

4.3. Accountability Reporting

4.3.A. Background and Findings

In order for SGPI management, the Direction générale adjointe and the Direction générale to be informed about real estate transaction management and the achievement of set objectives, structured accountability mechanisms must be put in place. Accordingly, management reports must be produced regularly to inform them about achievements and justify reasons for gaps, if applicable. This accountability must promote informed decision-making to guide the planning and allocation of resources required to reach objectives.

As part of our audit, our work consisted in determining the mechanisms put in place to report on real estate transaction management.

We found that real efforts had been put forth to implement accountability mechanisms within the Direction évaluation et courtage immobilier / sécurité. Accordingly, statutory meetings between staff members and their immediate managers are held periodically to review the files in progress. Statutory meetings between managers and their corresponding directors are also held.

Following the continuous improvement exercise, the Section des transactions immobilières set itself the goal of improving the number of finalized files. To report on the improvement of the situation, an operational report was produced in 2014 for the division head of the Division évaluation et transactions immobilières.¹² In 2015, a similar report was produced, but for the director of the Direction évaluation et courtage immobilier / sécurité. According to information obtained, for both years, this accountability reporting was performed on the initiative of the head of the Section des transactions immobilières.

For 2014, the report showed a 20% increase in the number of finalized files compared with the previous year, as well as a 9% increase in the number of files opened and closed. For 2015, the report showed a slight increase (5.6%) in the number of files finalized and a 9% decrease in the number of files opened. The report also showed the inability of the Section

¹² Which, in June 2015, became the Direction évaluation et courtage immobilier / sécurité.

des stratégies immobilières to perform preliminary analyses prior to the mandates being assigned. With regard to the result for closed files, it is not conclusive, since the 12 months were not taken into consideration. Another issue raised is the difficulty in reducing the number of active files in the *Gestion des mandats* application.

As previously mentioned, the Section des transactions immobilières has spent the past two years working to improve the number of files opened, closed and finalized. We feel, however, that by proceeding in this manner, all the files are treated equally without distinguishing whether they are acquisitions, sales or other types of transactions; without considering processing times; and, especially, without considering priorities.

We believe that the first step towards improving real estate transaction management is to determine timeframes for the main steps of the business processes. Having this information would make it possible to analyze issues involving not only SGPI resources but also the other stakeholders involved in the processes. We feel that measurable objectives with regard to timeframes should be set by SGPI management. Consequently, accountability reporting on these objectives would allow for informed decision-making and would contribute to improving real estate transaction management.

4.3.B. Recommendation

We recommend that the Service de la gestion et de la planification immobilière set measurable objectives not only with regard to finalized files but also for file processing times, broken down by transaction type, to carry on the process of continuous improvement.

Business unit's response:

[TRANSLATION] The SGPI will consider this recommendation when establishing the annual objectives of the Section des transactions immobilières. (Planned completion: June 2016)

4.3.C. Recommendation

We recommend that the Service de la gestion et de la planification immobilière put in place regular accountability mechanisms for real estate transaction management to be able to take the appropriate corrective measures in response to issues raised.

Business unit's response:

[TRANSLATION] The SGPI, in collaboration with its Bureau de projets, currently being set up, will put in place regular accountability mechanisms for real estate transaction management. (Planned completion: April 2017)

5. Conclusion

Generally speaking, our audit did not demonstrate that real estate transactions were conducted within a strategic management framework. First, the Service de la gestion et de la planification immobilière (SGPI) has not yet developed and deployed the means to implement an integrated management approach aimed at acquiring immovables over the medium and long term that would allow it to anticipate and meet the land reserve needs for urban development. Moreover, in terms of establishing a real estate strategy to meet future development needs, the SGPI can only identify the boroughs' urban development vision if it officially receives requests. Accordingly, the expected role and responsibilities of the Section des stratégies immobilières in real estate transaction processes must be clarified.

In addition, in terms of demonstrating that real estate transactions are conducted in such a way as to maximize value for the City, our audit revealed that several aspects of real estate transaction management must be structured, monitored and controlled. Clear and official directives on the various types of transactions have not been produced, leaving room for practices to be applied differently from one file to another. The employees involved in the real estate transaction processes are not currently required to regularly produce a declaration of independence or a declaration related to conflicts of interest, nor to submit a solemn pledge of confidentiality, which would be helpful in ensuring greater transparency and objectivity in the process. In addition, throughout all the steps of the various real estate transaction processes, the actions taken by staff members and the decisions they made are not always documented or are done so inconsistently. Furthermore, formal authorizations are not required by the current managers. The absence of clear rules in these areas does not allow the SGPI to demonstrate full transparency in the handling of real estate transaction files.

Furthermore, the follow-up and control mechanisms currently in place are insufficient to fully improve real estate transaction management. The tools available to the staff as a whole do not currently allow for efficient file monitoring. Nor do they provide managers with management information that is essential to continuous improvement, such as information on processing times.



**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, 2015

4.9

**Management of
Construction and
Renovation Work
on Ville de Montréal
Buildings**



Table of Contents

1. Background.....	373
2. Purpose and Scope of the Audit.....	374
3. Main Findings.....	374
4. Audit Results.....	375
4.1. General Information.....	375
4.2. Project 1 – Valleycrest Pool.....	382
4.3. Project 2 – Annie-Pelletier Pool	395
4.4. Project 3 – Bibliothèque Marc-Favreau	407
4.5. Project 4 – Caserne 32.....	419
5. Conclusion	428

List of Acronyms

BMF	bibliothèque Marc-Favreau	PAF	project approval file
CGP	Cadre de gouvernance des projets et des programmes de gestion d'actifs municipaux	RAC	Programme de rénovation, d'agrandissement et de construction de bibliothèques
FTP	Functional and technical program	RLPP	Rosemont–La Petite-Patrie
MELS	ministère de l'Éducation, du Loisir et du Sport	SC	Service de la culture
MHM	Mercier–Hochelaga-Maisonneuve	SGPI	Service de la gestion et de la planification immobilière
NPO	non-profit organization	SIM	Service de sécurité incendie de Montréal

4.9. Management of Construction and Renovation Work on Ville de Montréal Buildings

1. Background

In order to fulfil its mission, the Ville de Montréal (the City) has a large building inventory that meets the needs of both the citizens of Montréal and municipal employees.

The City's needs, which essentially depend on how its population and operations evolve, can be satisfied by various means, particularly through investments in building renovations and in municipal infrastructure construction intended to improve the service offer in terms of sports facilities, recreational and cultural activities, public safety and administrative services.

These real estate development investments can target several types of facilities: sports and recreation centres, libraries, administrative offices, municipal shops or even fire stations.

Construction and renovation projects concerning City buildings require considerable investments, averaging \$220 million per year.¹ These projects are subject to municipal frameworks and policies and directives concerning the acquisition of various services and the management of external contractual services. The completion of these projects also involves several stakeholders: the boroughs, the central departments and external professionals. Depending on the context, these different stakeholders may act in various roles—as client, project owner, internal provider of expert services or external supplier—depending on the expertise required (architect, plan and specification design professional, work supervision professional or building contractor).

Regardless of the scope or complexity of the construction or renovation projects, the coordination of all of these stakeholders must be based on best project management practices in order to ensure that the work is done in keeping with the terms of reference for which it was approved by the authorities in terms of costs, timeframe and quality expectations.

¹ In keeping with the 2013–2015 and 2014–2016 three-year capital expenditures plans adopted by the Ville de Montréal council and borough councils.

2. Purpose and Scope of the Audit

The purpose of this audit was to ensure that the applicable management frameworks are applied by the business units for the construction and renovation work done on the City's buildings and that the processes used by the business units for acquiring external services and managing the work provide for coordination, follow-up and accountability mechanisms that respect the management frameworks and best practices.

Our audit concerned a selection of four projects that were completed in 2014 or early in 2015 and which initially were valued at greater than \$5 million. The following projects were covered by the audit:

- Valleycrest pool project, undertaken by the Pierrefonds-Roxboro borough;
- Annie-Pelletier pool project, undertaken by the Mercier–Hochelaga-Maisonneuve (MHM) borough;
- Bibliothèque Marc-Favreau (BMF) project (Rosemont–La Petite-Patrie (RLPP) borough), undertaken by the Service de la gestion et de la planification immobilière (SGPI);
- Caserne 32 project, undertaken by the SGPI for the Service de sécurité incendie de Montréal (SIM).

Our work entailed interviewing managers and employees, examining various documents and conducting the tests we considered appropriate in order to obtain convincing evidence.

3. Main Findings

Our audit allowed us to identify areas where improvements should be made. Our principal findings are:

With respect to management frameworks:

- The *Cadre de gouvernance des projets et des programmes de gestion d'actifs municipaux (CGP)* [TRANSLATION] *Governance Framework for Municipal Asset Management Projects and Programs*, principally concerning large-scale projects, was not applied completely in the case of two projects that were subject to it;
- There was no management framework for managing projects that do not meet CGP criteria, even though their scope, their relative importance for the business units and their complexity were significant;
- None of the projects audited had a project approval file (PAF) that complied with good project management practices;

- A *functional and technical program (FTP)* providing the specifications required to meet the client's needs had not been prepared for two of the projects audited.

With respect to project governance and management:

- Shortcomings with respect to the governance and the assignment of qualified resources:
 - For all of the projects audited, a governance structure specifying the roles and responsibilities of the stakeholders involved was not clearly established;
 - A *project manager*, responsible for the overall coordination of the project, was not designated for two of the four projects audited;
 - One of the individuals assigned to serve as a project manager (one project) did not have the qualifications required to ensure sound management;
 - The individuals designated as responsible for one of the projects audited did not have the expertise needed to undertake building projects;
- Shortcomings in terms of project follow-up and monitoring:
 - For two of the projects audited, follow-up of the work was not thorough enough to ensure compliance with the plans and specifications;
 - For three of the projects audited, the cost estimate did not reflect the nature or the specifics of the projects or did not cover all of the project needs;
 - For all of the projects audited, the construction timeline was not available or not sufficiently up-to-date to ensure adequate follow-up of the project.

With respect to accountability mechanisms:

- None of the business units audited made it a practice to produce closing balance sheets;
- None of the business units audited had a formal accountability process for its real estate construction project.

4. Audit Results

4.1. General Information

4.1.A. Background and Findings

The process that leads to a construction or renovation project, initiated in keeping with the expression of needs by the client and leading up to the performance of work, can be long and complex, particularly for large-scale projects. The implementation of these projects must adhere to the following fundamental sound management principles:

- respect the management applicable framework mechanisms within the City by using the decision-making processes and supporting documentation;
- use best project management practices to complete projects;

- optimize the contribution of all of the internal and external resources in order to maximize the efficient use of public funds.

Our audit sought to determine whether the projects delivered by the business units adhered to these principles.

4.1.1. Management Frameworks for Building Construction and Renovation Projects

4.1.1.A. Background and Findings

First, with respect to management frameworks, several City policies apply to building construction and renovation projects, namely:

- the *Cadre de gouvernance des projets et des programmes de gestion d'actifs municipaux (CGP)* [TRANSLATION] *Governance Framework for Municipal Asset Management Projects and Programs*;²
- the *Politique de développement durable pour les édifices de la Ville de Montréal* [TRANSLATION] *Sustainable Development Policy for Ville de Montréal Buildings*,³
- the *Politique de gestion contractuelle* [TRANSLATION] *Contract Management Policy*.⁴

For this reason, our audit entailed validating the application of these management frameworks by the business units responsible for the following construction and renovation projects:

² The *Cadre de gouvernance des projets et des programmes de gestion d'actifs municipaux* [TRANSLATION] *Governance Framework for Municipal Asset Management Projects and Programs* was adopted by the executive committee on April 19, 2010, City council on April 22, 2010, and the urban agglomeration council on April 22, 2010.

³ The *Politique de développement durable pour les édifices de la Ville de Montréal* [TRANSLATION] *Sustainable Development Policy for Ville de Montréal Buildings* was adopted by the executive committee on June 9, 2009.

⁴ The *Politique de gestion contractuelle* [TRANSLATION] *Contract Management Policy* was adopted by City council on June 17, 2013, and the urban agglomeration council on June 20, 2013.

Table 1 – Sample of Projects Audited^[a]

Project name	Business unit (client)	Business unit (project delivery)	Project cost estimate ^[a]	Expected delivery year
Valleycrest pool	Pierrefonds-Roxboro Borough	Pierrefonds-Roxboro Borough	\$5.2M	2014
Annie-Pelletier pool	Mercier–Hochelaga-Maisonneuve Borough	Mercier–Hochelaga-Maisonneuve Borough	\$12.0M	2014
Bibliothèque Marc-Favreau	Rosemont–La Petite-Patrie Borough	SGPI and Rosemont–La Petite-Patrie Borough	\$12.5M	2013
Caserne 32	Service de la sécurité incendies de Montréal	SGPI	\$5.7M	2013

^[a] Scope of the project based on the initial budget presented for project approval by the authorities.

The CGP, implemented by the City in 2010, is intended to harmonize practices concerning the delivery of projects and the implementation of programs, in keeping with municipal policies and guidelines. This framework applies to all of the City’s business units (departments, boroughs and para-municipal organizations) and covers so-called large-scale projects: those worth \$10 million and more, complex projects or projects that involve high levels of risk.

Based on the information obtained through discussion and the consultation of project files, our audit indicates that the Annie-Pelletier pool project and the BMF project did not respect the CGP even though they were subject to it by virtue of their scope. This element will be raised in the sections concerning the two projects. We are of the opinion that the Direction générale should take the necessary measures to ensure that this management framework is respected by all of the City’s business units whose projects are subject to it.

Moreover, we noted that the City has no standardized and uniform framework for the governance and management of projects worth less than \$10 million, such as the construction of the Valleycrest pool and Caserne 32. The business units that undertake smaller construction projects have unofficially developed practices, tools and work methods of their own. However, it appears that, in addition to being different from one business unit to another and even from one project to another within a single business unit, as in the case of the projects undertaken by the Service de la gestion et de la planification immobilière (SGPI), current approaches are not systematically aligned with good practices (e.g., a well-established governance structure) and do not always comply with the management

frameworks in effect, undermining sound project management and multiplying the resources and efforts the City must dedicate to the projects.

It would therefore be advantageous for the City, for the benefit of the central departments and the boroughs, to implement a management framework for smaller construction and renovation projects as well, in order to give the municipal stakeholders a first-rate tool including the best management practices in this field.

Moreover, the business units' construction projects are also subject to the *Politique de développement durable pour les édifices de la Ville de Montréal [TRANSLATION] Sustainable Development Policy for Ville de Montréal Buildings*. This policy is specifically intended to ensure that the design, construction, renovation, demolition and operation of municipal buildings are undertaken in such a manner as to reduce the environmental impacts and the overall cost of buildings and help achieve the environmental targets established by the City. Specifically, in keeping with this policy, all new constructions of more than 500 m² must obtain LEED® certification.⁵

Finally, the *Politique de gestion contractuelle [TRANSLATION] Contract Management Policy* is intended, among other things, to ensure the efficiency and completeness of the supply and contract-awarding processes in keeping with the law and the principles of sound management.

Compliance with these two policies will be discussed in the sections provided for this purpose for each of the four projects audited.

4.1.1.B. Recommendation

We recommend that the Direction générale implement appropriate measures to ensure that the *Cadre de gouvernance des projets et des programmes de gestion d'actifs municipaux [TRANSLATION] Governance Framework for Municipal Asset Management Projects and Programs* is respected by all of the business units for the projects that are subject to it.

⁵ LEED® certification is an international standard for the design, construction and operation of high-performance, sustainable buildings. There are four levels of building certification (certified, silver, gold or platinum), based on evaluation criteria that include energy efficiency, water consumption efficiency, heating efficiency, use of local materials and re-use of material surpluses.

4.1.1.C. Recommendation

We recommend that the Direction générale implement a governance framework for all projects considered significant that do not meet the criteria of the *Cadre de gouvernance des projets et des programmes de gestion d'actifs municipaux* [TRANSLATION] *Governance Framework for Municipal Asset Management Projects and Programs* in order to ensure the sound management of all City building projects.

Business unit's response:

[TRANSLATION] The Direction générale agrees with the two preceding recommendations.

A first step was taken when the organizational structure of the SGPI was changed.

The second step involved starting to implement a project management culture by setting up a dedicated team in March 2016.

At the end of the process, the administration will examine the possibility of grouping together all real estate management activities under the SGPI; this will facilitate the implementation and respect of standardized management mechanisms that include best practices. (Planned completion: March 2017)

4.1.2. Good Project Management Practices

4.1.2.A. Background and Findings

In order to implement the CGP, the Bureau des projets et programmes d'immobilisations,⁶ which reports to the City's Direction générale, developed an approval and coordination process for large-scale projects that describes the general stages of projects as well as the principal activities and deliverables for each stage of a project. Table 2 summarizes the activities and principal deliverables for each of the stages in this procedure.

⁶ Formerly the *Bureau principal de gestion de projets*.

Table 2 – Stages in the Large-Scale Project Management Procedure^[a]

Project stage	Principal activities	Deliverables
Project start-up (incubation)	<ul style="list-style-type: none"> Project definition; Evaluation of the performance options. 	<ul style="list-style-type: none"> Project approval file, which specifically presents: <ul style="list-style-type: none"> preliminary definition of the project: goals, objectives and expected benefits; deliverables and preliminary timeline; the financial aspects of the project; the estimated risks, opportunities, hypotheses and constraints; project team structure and governance; Summary cost estimate; Decision-making file: awarding of contracts for professional services, real estate transactions, etc.
Project planning (feasibility)	<ul style="list-style-type: none"> Feasibility studies; Functional and technical program (FTP); Preliminary draft; Definitive draft; Project planning. 	<ul style="list-style-type: none"> Updated project approval file; Project plan (obligatory deliverables at the transition point): it defines the approach taken to complete, supervise, master and conclude the project; Functional and technical program; Preliminary plans and specifications; Cost estimate (preliminary); Decision-making file: agreements and protocols, borrowing regulation, public consultation, etc.
Project execution (completion)	<ul style="list-style-type: none"> Plans and specifications; Performance of the work; Accountability. 	<ul style="list-style-type: none"> Updated project approval file; Preliminary and definitive plans and specifications; Cost estimate (detailed); Organization of the work site; Decision-making file: awarding of contracts for professional services and contractors, etc.; Provisional and final acceptance of the project.
Project closeout	<ul style="list-style-type: none"> Acceptance of structures; Project closeout; Final accountability. 	<ul style="list-style-type: none"> Delivery of the work in keeping with the agreements; Compliance verification; Transfer of the structure to the users and those responsible for operations and maintenance, including the commissioning and the as-built plans; Closing balance sheet for the project.

^[a] Source: Bureau principal de gestion de projets de la Ville, extract from the document: *Synthèse des activités et livrables, selon les phases, pour les projets d'envergure [TRANSLATION] Summary of activities and deliverables, by project stage, for large-scale projects.*

As in the case of the CGP, good practices mean that certain documents, presented in Table 3, are essential in order to ensure sound management and appropriate accountability for a project, regardless of the project size.

Table 3 – Essential Documents

Project document	Definition	Purpose
Project approval file	Document issued by the project owner that confirms the existence of the project, defines the content and states the objectives and expectations.	<ul style="list-style-type: none"> Allows all of the stakeholders to agree on the principal aspects of the project; Supports the decision-making process throughout the project life cycle; Presents the governance structure for the project.
Functional and technical program	Document that presents the characteristics of the building in functional, operational and technical terms needed to satisfy the client's objectives.	<ul style="list-style-type: none"> Enables plans and specifications to be prepared by professionals (architects and engineers) in keeping with the client's needs.
Cost estimate	Presents the cost projections for the project.	<ul style="list-style-type: none"> Used to plan and track the project budget; Used to evaluate the tenders proposed for the project.
Project structure	Project organization chart defining the roles and responsibilities of all stakeholders.	<ul style="list-style-type: none"> Specifies the division of roles and responsibilities among the stakeholders; Determines the communication and decision-making channels.
Accountability	Mechanism for reporting throughout the project.	<ul style="list-style-type: none"> Required for reporting on the use of resources and the achievement of the objectives set in terms of quality, cost and deadlines.

Although these deliverables are necessary for sound project management, our audit indicated that there are major shortcomings for all of the projects audited. We observed that:

- The project management process is not standard from one business unit to the next and even within a business unit responsible for several projects (SGPI);
- Project documentation (e.g., the project approval file (PAF), the FTP and the governance structure) was incomplete, or even non-existent.

Observations and recommendations in this respect will be discussed in detail for each of the projects in the next sections of this report.

4.2. Project 1 – Valleycrest Pool

4.2.A. Background and Findings

Up to 2011, the aquatic activities service offer for the territory of the Pierrefonds-Roxboro borough was ensured solely by non-profit organizations (NPOs) in facilities that did not belong to the borough. The borough's territory included six outdoor swimming pools belonging to community associations that used public funds to operate these pools. Although several of these facilities were outdated, they could not benefit from the City's equipment upgrading program since the City did not own them.

In order to identify the borough's future infrastructure needs for cultural, sports and recreational activities, the Pierrefonds-Roxboro City council awarded a contract for \$58,671 to a group of firms of architecture and engineering professionals on November 7, 2011, to study the ageing and upgrading of the six pools on its territory and to assess their potential given their current status.

Based on this study, the borough's Direction de la culture, des sports, des loisirs et du développement social (DCSLDS) prepared a development plan not to upgrade the existing facilities, but rather to build three new outdoor pools over the next five years. The borough council decided to completely rebuild the Valleycrest pool based on its location near a park belonging to the borough, its geographic situation and its impact on the services offered to citizens.

In July 2012, the DCSLDS sent a letter of intent to the NPO that operated the Valleycrest pool informing it that the current site of the Valleycrest pool had been selected for the construction of a new aquatic complex on the condition that the site, the facilities and the immovable property be transferred to the City. On November 7, 2012, the general assembly of the NPO in question adopted a resolution to transfer its property, without any monetary consideration, for the construction of a new aquatic complex.

In exchange for this transfer, the Pierrefonds-Roxboro borough was to demolish the existing facilities and build an outdoor aquatic complex within 24 months of the date on which the borough accepted the site, September 3, 2013. According to the decision-making file for awarding the contract to build the pool and the building, the initial deadline for the completion of the project confirmed that the work would start in September 2013 and end in May 2014. The borough council expected delivery of the pool for the start of the 2014 summer season.

Our audit covered the decision-making process, the management frameworks and the project management practices used for the Valleycrest pool project, including the mechanisms for following up and monitoring quality, costs and the project timelines.

4.2.1. Project Management Framework

4.2.1.A. Background and Findings

The Valleycrest pool construction project was estimated at \$5.2 million, including the production of the preliminary FTP, the cost of the professional services for plans and specifications, work site supervision and the construction of the pool and building. Because the value was less than \$10 million, this project did not come under the CGP.

At the borough level, the matter of the project management framework was formally discussed with those in charge of the project. Based on our understanding, there was no formally documented management framework specific to the borough and specific to this type of project. Given the absence of a formal governance and project management framework, the borough followed the usual decision-making process supporting municipal infrastructure real estate projects (e.g., rebuilding roads, developing parks, building urban furniture) as well as the City rules and directives in effect that apply with respect to awarding contracts.

As a result, we noted that the basic document supporting the decisions made by the elected representatives for this project was the decision-making file. When we consulted the decision-making files, we were not able to identify all of the elements that usually make up a PAF, specifically those concerning governance. We are of the opinion that a PAF should have been produced in keeping with good practices, so that the project stakeholders and the authorities could have a detailed overview of the principal issues and aspects, such as the scope, the governance structure, the deliverables and the resources required to ensure successful completion of the project.

Moreover, our audit also focused on the process use to award the contracts and analyze the proposals and the documentation submitted for the decision-making process used for the Valleycrest pool project. In our opinion, these elements complied with the applicable rules and frameworks for the following contracts:

- the contract for the study on the ageing and upgrading of the six pools;
- the contract covering the production of the preliminary FTP;
- the contract for professional services (including architecture, engineering and supervision of the work).

The contract for professional services (including architecture, engineering and supervision of the work) was comprised of three parts⁷ according to the call for tenders documents. With respect to Part A, the firm of professionals was to produce, among other things, a final FTP based on the preliminary FTP for the project.

According to the information provided in the call for tenders document, the final FTP was supposed to recommend final choices with respect to geometry, implementation, architecture and materials and to be presented to the Comité consultatif d'urbanisme and the Comité d'architecture before being approved by the borough council.

Upon examining the documentation provided, we noted the existence of certain deliverables set out in the contract, such as the cost estimate and the timeframe. However, although it was one of the requirements of the mandate, the final FTP was not produced by the firm. Yet, the FTP is one of the essential elements of the planning stage for a project. The absence of such a document increases the risk that the plans and specifications will be incomplete, leading to requests for changes or additions during construction. We are of the opinion that the borough should have made sure that it obtained a final FTP before allowing the professional to go forward with preparing the plans and specifications.

4.2.1.B. Recommendation

We recommend that the Pierrefonds-Roxboro borough, in keeping with good project management practices, systematically produce a project approval file for every building project so as to ensure that all the project parameters are defined, enabling the council to make an informed decision.

Business unit's response:

[TRANSLATION] A (PAF) will be submitted to the council members in a plenary session for any real estate project worth more than \$1 million. This file will include a detailed presentation of the project, the production schedule, the estimated risks and constraints, the governance framework and the project team structure.

*The cost estimate will be handled in a confidential manner, and the individuals present will be reminded that this information is not to be transmitted to external stakeholders.
(Planned completion: immediate)*

⁷ Part A: Program for the preliminary project for an outdoor pool and adjacent buildings and validation of the project data. Part B: Preparation of the definitive file, preparation of the call for tenders, validation of the costs and preparation of the plans and specifications issued for construction purposes. Part C: Supervision of the work.

4.2.1.C. Recommendation

We recommend that the Pierrefonds-Roxboro borough make sure that it formally obtains all of the goods and deliverables expected from the contractors so as to ensure that the project is completed in an efficient manner and in keeping with the identified needs.

Business unit's response:

[TRANSLATION] The borough will make sure that the list of deliverables is included in call for tenders documents. (Planned completion: immediate)

4.2.2. Project Governance

4.2.2.A. Background and Findings

With respect to governance, one of the key elements for the success of a construction project is a team of experts from all of the fields involved, with an experienced project manager to oversee the coordination of the stages for performing the work and to monitor the work, the timeline and the budget.

Therefore, it is expected that the roles and responsibilities of the stakeholders would have been determined and made official before the project start-up phase. Yet, based on the information obtained from the individuals we interviewed, no formal structure was set up to ensure the governance of the Valleycrest pool project.

Nevertheless, stakeholders from the borough were involved in the project, including:

- the manager of the Division des sports, loisirs et installations, appointed to serve as the project manager and responsible for representing the users' needs;
- the manager of the Division ingénierie et infrastructure, involved throughout the project, specifically for aspects pertaining to preparing administrative documents for the call for tenders and approving the progressive payments during construction;
- the manager of the Section ingénierie, hired by the borough part way through the project, during the construction phase, who supported the project manager for the validation of certain technical aspects of the project.

Consequently, the management of the Valleycrest pool project depended on the experience of the individuals assigned to the project. This project management context presented major shortcomings:

- No formal governance structure was established, such as an organization chart for the project specifying the roles and responsibilities in keeping with each individual's field of expertise;
- The project manager did not have the expertise in project management or in the construction of such complex and specialized municipal infrastructures as an aquatic facility needed to ensure the success of the project;
- The division of roles and responsibilities between the project manager and the manager of the Section de l'ingénierie was not clearly established;
- The manager of the Division ingénierie et infrastructure did not have a direct and clearly defined role or responsibilities in this project despite being involved at all stages of the project.

We are of the opinion that, in order to ensure the sound management of its projects, the Pierrefonds-Roxboro borough should implement a formal project management structure and clarify the roles and responsibilities of the individuals involved. It is equally important for these stakeholders to have the skills and project management experience that are essential if they are to adequately fulfil their responsibilities and ensure successful completion of the project. This is all the more important since the borough plans to build other aquatic facilities.

4.2.2.B. Recommendation

We recommend that the Pierrefonds-Roxboro borough make sure that a project management structure is implemented and that the roles and responsibilities are formally defined for projects.

Business unit's response:

[TRANSLATION] The borough has taken the necessary steps to obtain a resource that will implement a project management structure. Process to fill the position of real estate manager under way. (Planned completion: June 2016)

4.2.2.C. Recommendation

We recommend that the Pierrefonds-Roxboro borough make sure that the individuals assigned to project management have the experience and expertise required to ensure the success of the project.

Business unit's response:

[TRANSLATION] Temporary internal resources will be hired to manage major projects. In the case of outsourced project management mandates, the borough will make sure that the candidates submitted by the firm retained are qualified to fulfil the contract. (Planned completion: immediate)

4.2.3. Project Follow-Up and Monitoring Mechanisms

4.2.3.A. Background and Findings

Regardless of the scope of an undertaking, project management is a crucial activity focused on three main components: the products or deliverables, the timeframe and the costs. Mechanisms must be implemented to follow up on and monitor these elements in order to make sure that the expected quality and quantity of work are achieved within the timelines and the budget allocated for the project.

To this end, our audit mainly examined the implementation of such mechanisms and tools so as to ensure the successful completion of the project.

4.2.3.1. Monitoring Project Delivery

4.2.3.1.A. Background and Findings

The borough assigned the professional responsible for supervising the work site to monitor execution of the project. He was responsible for making sure that the construction work done by the contractor complied with the plans and specifications and was of the quality expected.

Monitoring the progress of the project was also the responsibility of the internal team set up by the borough and made up of the project manager, the manager of the Division ingénierie et infrastructure and the manager of the Division des sports, loisirs et installations. However, their roles and responsibilities were not clearly defined. The potential consequences may be reflected in the acceptance of non-compliant deliverables and incomplete plans and specifications that could result in additions or modifications, causing delays.

In keeping with good project management practices, the implementation of project planning, coordination, and monitoring processes and mechanisms is essential in order to ensure that the project runs smoothly, particularly for the construction of a complex infrastructure.

Moreover, the Valleycrest pool project was not subject to the *Politique de développement durable pour les édifices de la Ville de Montréal [TRANSLATION] Sustainable Development Policy for Ville de Montréal Buildings*, which states that any construction should aim for LEED® certification, since the area of the building was less than 500 m².

4.2.3.2. Monitoring the Timeline

4.2.3.2.A. Background and Findings

The timeline is the focal point of project management, integrating all the project stages. It must be managed by a project manager, who can determine the progress of the project and, on an ongoing basis, assess the activities to be completed so as to be able to take the actions required to achieve the work within the original budget and timeframe.

In the case of the Valleycrest pool project, the detailed timeline for the construction work was presented by the contractor to the borough representatives and the professionals during the first meeting on the work site. Following this, during each work site meeting, the contractor was to update it and inform the borough representatives and the professionals about the progress of the work relative to the established timeline. The delivery date for the pool, as set out in the call for tenders documents, was scheduled for May 9, 2014.

The timeline was to be monitored by a work site supervisor designated by the firm of professionals. Moreover, the internal borough team was responsible for monitoring progress using progressive payments and during work site meetings.

Nevertheless, we were informed that, although it was expected that the timeline would be systematically updated by the contractor for the purpose of monitoring the work, this did not happen. Consequently, when the contractor informed the borough of a delay in the work, the borough had no up-to-date timeline and could not assess the impact on the expected delivery date.

An examination of the work site meeting minutes, with respect to the timeline, enabled us to make the observations presented in Table 4:

Table 4 – Construction Timeline – Valleycrest Pool

Timeline	Dates
Order to start work	September 6, 2013
Expected end date of work provided in the call for tenders	May 9, 2014
End date of work planned by contractor	May 12, 2014
Actual end date of work	June 26, 2014
Delay	45 days

It was only during the 27th work site meeting, on April 1, 2014, that the end date of the work, originally scheduled for May 12, 2014, was postponed to June 26, 2014, by the contractor. In our opinion, the contractor was very tardy when he reported a delay of more than a month relative to the timeline just a few days before the scheduled delivery date for the building. Moreover, during another special meeting concerning the timeline, held on May 29, 2014, the contractor attempted to postpone the delivery date for the building a second time. Nevertheless, since the borough had made a public commitment to deliver the pool for the summer season, the June 26, 2014, delivery date was maintained.

Postponing the pool delivery date was not without consequence since the contractor had to extend his work schedule, which resulted in acceleration fees of \$103,928.

According to the contractor, integrating requests for changes and potential weather conditions contributed to the postponement of the initial delivery date and resulted in acceleration fees for the borough. To the best of our knowledge, neither the firm of professionals nor the borough questioned the contractor's responsibility for these delays.

In addition to the contractor's failure to systematically update the timeline, in our opinion, the monitoring work done by the firm of professionals responsible for supervising the work site entailed shortcomings preventing it from identifying delays and evaluating the impact on the expected delivery date for the pool.

We are of the opinion that this situation needs to be corrected for future construction projects to keep the stakeholders informed about the progress of the work so that they may assess the progress of the work on an ongoing basis and take the necessary measures to ensure that the work is completed on time.

4.2.3.2.B. Recommendation

We recommend that the Pierrefonds-Roxboro borough make sure that the timelines for future projects are systematically updated to ensure adequate monitoring of the progress of the work so that the actions required can be taken to ensure that the work is completed on time.

Business unit's response:

[TRANSLATION] The real estate manager will systematically follow up on projects in co-operation with the project manager. The borough will acquire adequate tools, including the computer applications needed to follow up on projects. (Planned completion: June 2016)

4.2.3.3. Cost Estimates and Budget Monitoring

4.2.3.3.A. Background and Findings

Another factor that contributes to the success of a project is staying on budget, which first requires a detailed and precise breakdown of the costs for all of the elements needed for the project.

In the case of the Valleycrest pool project, two cost estimates were prepared, one during the production of the preliminary FTP and a second based on the plans and specifications. This second estimate, produced by the firm of professionals, indicated a price of \$4,723,136 for the construction work and served as a reference estimate for evaluating the tenders received.

At the end of the call for tenders process, the tenders were opened, on August 22, 2013. As indicated in Table 5, a comparison of the reference estimate for the construction costs (\$4,293,760) and the tender accepted (\$5,214,452) for the construction contractor's services reveals a difference of \$920,693 (21.44%).

**Table 5 – Comparison of the Estimate of the Construction Costs
for the Valleycrest Pool and the Tender Retained**

Cost category	Reference estimate (construction – July 2013) \$	Tender retained (August 2013) \$	Difference	
			\$	%
Construction cost^[a]				
Work site organization	211,388	527,871	316,483	150%
Civil	485,000	396,738	-88,262	-18%
Landscaping	62,050	109,266	47,216	76%
Structure	730,233	1,047,831	317,599	43%
Architecture	1,101,721	1,370,288	278,567	25%
Mechanics	780,000	682,875	-97,125	-12%
Electricity	225,000	337,300	112,300	50%
Other	139,125	53,123	-86,002	-62%
Taxes	559,244	679,160	119,916	
Sub-total	4,293,760	5,214,452	920,693	21.44%
Construction contingencies	429,376	—		
Total construction cost	4,723,136	5,214,452		

^[a] Includes the general conditions – administration and profits.

At the request of the borough, the professional firm presented a report analyzing this difference (21.44%) on August 27, 2013, which essentially covered the following elements:

- For the *Work site organization* category (difference of \$316,483, or 150%), the firm attributed the major portion of the difference to hypothetical considerations, namely the contractor's expectations with respect to winter conditions and probable changes that could affect the duration of work on the site;
- According to the firm, the difference of \$317,599 (43%) for the *Structure* category could have been caused by the fact that the geotechnical report was issued during the call for tenders period, indicating larger quantities for fill and excavation work than the quantities estimated;
- The difference in the cost (\$278,567, or 25%) for the *Architecture* category, the firm attributed to the proximity of the call for tenders period to the construction holiday period which, possibly, could have meant that the contractor could not obtain the price for the architectural elements and therefore provided a wide margin.

All in all, the analysis of the differences presented by the firm leads us to believe that the contractor gave himself a rather significant operating margin for the project.

In our opinion, the firm did not fully document the differences, and the reasons offered seem, for the most part, both simplistic and based on purely hypothetical considerations. Yet, the guide⁸ concerning content and presentation aspects of decision-making files, published by the City in 2011, recommends that any difference of more than 10% between the tender submitted by the contractor and the last estimate prepared be rigorously explained. Considering the magnitude of the difference (21.44%), the borough should have provided a more in-depth and tangible explanation and should also have considered rejecting the tender. This should, moreover, have been officially recommended by the firm. The fact that professional fees generally represent a percentage (%) of the construction costs, thereby further increasing the difference in the global cost of the project, should also be taken into consideration.

The decision-making file for awarding the contract to the lowest bidder, to which the firm's analysis report was appended, explicitly indicated that the tender retained was 21.44% greater than the reference estimate. It is therefore with full knowledge of the facts that the borough council approved the awarding of the construction contract.

Moreover, it can be seen that, although the estimate prepared by the firm of professionals provided an amount for construction contingencies, the call for tenders documents did not. In fact, according to the information obtained, during the initial planning of the Valleycrest pool project, the borough had made no provision for contingency costs.

However, during construction, adjustments had to be made to the initial construction plan in order to take into account certain contingencies and modifications to the project. These adjustments generated additional costs, in addition to the work acceleration costs mentioned earlier, which were required to meet the deadline for opening the pool. Thus, based on the information obtained, the comparison of the amount of the tender retained for the construction work and the actual cost of the construction work is as follows:

⁸ Guide entitled *Documentation relative aux dossiers décisionnels soumis aux instances centrales* [TRANSLATION] *Documentation concerning the decision-making files submitted to the central authorities.*

**Table 6 – Comparison of the Budget to the Actual
Construction Cost of the Valleycrest Pool**

Cost category	Tender retained (August 2013) \$	Actual cost of the project (progressive payments – October 2015) \$	Difference	
			\$	%
Construction cost	5,214,452	5,215,710	1,258	
Construction contingencies	0	307,272	0	
Total construction cost	5,214,452	5,522,982	308,530	5.9%

All in all, the construction work on the Valleycrest pool cost more than \$5.5 million, exceeding the estimate by 5.9% (\$308,530) as a result of contingencies that were not included in the authorized expenses. This voluntary omission on the part of the borough resulted in additional delays, since any modification or addition had to be authorized by the borough council. We are of the opinion that, in keeping with good management practices, the borough should have provided for contingent charges for this project.

In terms of project cost monitoring mechanisms, progressive payments were produced by the firm assigned to supervise the work site as the work was completed by the contractor. That firm validated the costs billed by the contractor and recommended their payment. Following that, the payments were approved by the manager of public works and the manager of the Division ingénierie et infrastructure.

4.2.3.3.B. Recommendation

We recommend that the Pierrefonds-Roxboro borough rigorously explain any difference of more than 10% between the lowest compliant tender and the last estimate produced in the decision-making file in order to enable the borough council to make an informed decision with respect to awarding the contract.

Business unit's response:

[TRANSLATION] When a contract is awarded for any real estate project, rigorous explanations will be provided in the decision-making summaries for any difference of more than 10% between the lowest compliant tender and the last estimate prepared before the tenders were opened.

These explanations will be based on an analysis prepared by the borough's professionals or the consultant assigned to the file.

*This will enable the council to make an informed decision when awarding contracts.
(Planned completion: immediate)*

4.2.3.3.C. Recommendation

We recommend that the Pierrefonds-Roxboro borough make sure that it provides contingency fees in the project estimates so that the project stakeholders have the necessary budgets to deal with all situations that are unexpected but necessary for the completion of the project.

Business unit's response:

[TRANSLATION] The practice of not including contingency fees in the call for tenders documents for contracts based on a lump sum was abandoned after the Valleycrest pool project.

It is now common practice to indicate contingency fees based on the complexity of the project and its inherent risks. (Planned completion: completed)

4.2.3.4. Project Closeout and Accountability

4.2.3.4.A. Background and Findings

The project closeout phase is necessary for taking stock of the project and reporting on the achievement of project objectives and the manner in which the funds and resources allocated to the project were managed. The closing balance sheet also serves to identify shortcomings in the management of the project so that the necessary measures can be taken to avoid repeating them in future projects.

In the case of the Valleycrest pool project, the individuals we interviewed, specifically the project manager, informed us that, apart from the informal monitoring of project progress by the stakeholders involved and their supervisors, no formal accountability mechanisms were established to report to borough management or the elected representatives for the project. Moreover, this element is not part of the existing approach.

Given the absence of a formal accountability process or a project closing balance sheet, neither the managers nor management had benchmarks and indicators they could use to evaluate project management practices and the achievement of objectives.

We are of the opinion that it would be in the interests of the borough to implement the practice of producing a closing balance sheet so as to ensure formal accountability for future projects sanctioned by the authorities. Moreover, considering all of the weaknesses noted with respect

to the management of the Valleycrest pool project, a project report is required to identify the shortcomings identified during the project so as to promote better management of the borough's future building projects.

4.2.3.4.B. Recommendation

We recommend that the Pierrefonds-Roxboro borough submit accountability reports on building construction and renovation projects to council, in keeping with an established threshold, so as to inform council of the extent to which the objectives have been achieved in terms of the principal project management elements.

Business unit's response:

[TRANSLATION] The borough already makes sure that each of the expenses for its projects is backed by a delegated decision (yellow GDD). The borough will prepare an accountability document for elected officials so as to inform them of the degree to which the objectives have been achieved. (Planned completion: June 2016)

4.3. Project 2 – Annie-Pelletier Pool

4.3.A. Background and Findings

Between 2006 and 2009, the Mercier–Hochelaga-Maisonneuve (MHM) borough council discussed a project to build a recreational sports complex in Mercier-Est, in Parc Clément-Jetté, in order to serve the existing and future population anticipated as a result of the *Faubourg Contrecoeur* housing development. The complex was to include the Clément-Jetté arena (which existed at the time), an indoor pool, a double gymnasium and community facilities. The borough council expected the Ministère de l'Éducation, du Loisir et du Sport (MELS) to take part since it has a subsidy program⁹ for this type of project.

Considering the scope of the investment required to build the recreational sports centre, estimated at \$23.2 million, the borough limited its project to building an indoor pool, at an estimated cost of \$12 million.

In order to finance its project, the MHM borough council solicited the central City council for a contribution of \$2 million for the project and the MELS for a subsidy through its support program for sports and recreational facilities. Nevertheless, the borough did not receive support from either the central City, which refused its request, or the MELS subsidy program.

⁹ *Programme de soutien aux installations sportives et récréatives* – phase 2 of the MELS's Fonds de développement du sport et de l'activité physique.

Therefore, on October 4, 2011, the MHM borough resolved that the indoor pool project would be funded entirely through its own financial resources.

Based on the decision-making files concerning the contract for building the pool and the work site supervision contract, the borough council expected the work to start in August 2012 and end at the beginning of September 2013. According to the architectural description, the new pool project would entail building a new two-storey building that would house the aquatic facilities (a pool, a play pool and an indoor beach), locker rooms, technical rooms, a reception area and circulation space. At the end of the project, the expenses authorized by the borough council for this project were close to \$14 million.

Our audit covered the decision-making process, the management frameworks and the project management practices used to complete the Annie-Pelletier pool project, including the mechanisms for monitoring and controlling quality, costs, and the project timeframe.

4.3.1. Project Management Framework

4.3.1.A. Background and Findings

As indicated in Section 4.1.1, on account of both its scope and its complexity, the Annie-Pelletier pool project was subject to the CGP.

Nevertheless, we noted that responsibility for the entire project was assumed by borough stakeholders who either had no knowledge of the City's CGP and the decision-making process supporting it or believed erroneously that this framework applied solely to projects managed by the City's central departments. As a result, the Annie-Pelletier pool project was managed solely in keeping with current practices concerning budget authorizations and the City's general policies and management frameworks such as the *Politique de gestion contractuelle* [TRANSLATION] *Contract Management Policy*. We are, however, of the opinion that this project should also have been managed in keeping with the CGP.

Moreover, an examination of the history of the project, from 2006, when the council first considered building a recreational sports complex, until 2011, when it resolved to build an indoor pool, revealed that the documentation supporting the decision was not complete. In fact, since no PAF was prepared at the planning stage, the progress of the project was fragmented through several decision-making files and no document presented all of the elements that usually make up a PAF.

We are of the opinion that a DAP should have been produced in keeping with good practices, so that the project stakeholders and the authorities could have a detailed overview of the issues and principal aspects, such as the scope, the governance structure, the deliverables and the resources required to ensure successful project completion.

Moreover, contrary to good practices, during the planning stage of the project, preparing an FTP was not a common practice, according to the project manager. Yet, the absence of an FTP could have an impact on the completeness and accuracy of the plans and specifications as well as on the smooth flow of the construction work. Moreover, considering the absence of an FTP for the Annie-Pelletier pool project, certain items that are important for the functionality of the pool were not included in the construction plans and specifications (elements that will be raised in Section 4.3.3.1 *Monitoring Project Delivery*).

Finally, in order to evaluate compliance with the frameworks concerning the acquisition of external professional services, we examined the decision-making process and files for awarding the three principal contracts for the project, as presented in Table 7, namely:

- the professional architecture and engineering services contract;
- the construction contractor services contract;
- the contract for supervision of the construction site;

Table 7 – Analysis of the Decision-Making Files for Authorizing the Awarding of Contracts for the Annie-Pelletier Pool Project

Number of tenders	Value of the tender retained (taxes included)	Comments
Professional architecture and engineering services		
<ul style="list-style-type: none"> · 9 tenders · 5 tenders did not comply 	Consortium of professionals \$712,031	<ul style="list-style-type: none"> · No analysis provided in the decision-making file; · No mention of non-compliant tenders in the decision-making file.
Services provided by construction contractors (1st call for tenders)		
<ul style="list-style-type: none"> · 7 tenders · No compliant tender 	Cancellation of the call for tenders	<ul style="list-style-type: none"> · Cancellation of the call for tenders as a result of anomalies in the tenders, some of which pertained to ambiguities in the administrative clauses of the call for tenders documents; · Additional costs of \$19,070 assumed by the borough for correcting call for tenders documents, whereas the professionals were responsible for preparing them.
Services provided by construction contractors (2nd call for tenders)		
<ul style="list-style-type: none"> · 3 tenders · The lowest tender was judged non-compliant 	Construction contractor \$12,873,530	<ul style="list-style-type: none"> · The decision-making file recommends authorizing a total expense of \$15,448,236, including \$2,574,706 for contingencies and accessory fees; · No mention of non-compliant tenders in the decision-making file; · No mention of a tender analysis report.
Supervision of the construction site		
<ul style="list-style-type: none"> · 1 tender received 	Site supervisor \$170,738	<ul style="list-style-type: none"> · The decision-making file recommends authorizing a total expense of \$196,348.56, including \$25,610.68 for contingencies; · An additional adjustment of \$58,767.68 as a result of the delay in construction (142 days).

Thus, the decision-making files concerning the three principal contracts for the project, in the amount of \$13,756,299 (without adjustments), present major shortcomings in terms of documentation:

- No mention was made of the non-compliance of some of the tenders received in the decision-making file concerning the contract for professional architecture and engineering services;
- The decision-making file for awarding the professional services contract mentions that the committee set up to analyze the tenders recommended awarding the contract to the firm selected. The borough council may incorrectly think that the tenders were analyzed by this committee, whereas this was done by the internal project manager;

- The decision-making summary concerning the awarding of the construction contract is not explicit with respect to the reasons for which the lowest tender received was not compliant. This non-compliance was validated by the borough's legal department; however, we obtained no evidence of this. The tenders were analyzed by the project manager whereas the Consortium had a mandate to do so, in addition to producing the call for tenders documents for the services of a construction contractor, analyzing the tenders and making the necessary recommendations. We were unable to obtain an analysis report;
- There was a single bidder during the call for tenders for the supervision of the work site, with no questions about awarding the contract, namely whether the borough obtained a fair price.

We are of the opinion that the decision-making files for awarding the contracts should explicitly present all of the information needed by the authorities to make an informed decision, in keeping with the principles of sound management provided in the City's contractual management policy.

4.3.1.B. Recommendation

We recommend that the Mercier–Hochelaga-Maisonneuve borough make sure that projects that meet the criteria for the *Cadre de gouvernance des projets et des programmes de gestion d'actifs municipaux [TRANSLATION] Governance Framework for Municipal Asset Management Projects and Programs* are undertaken in keeping with that framework.

4.3.1.C. Recommendation

We recommend that the Mercier–Hochelaga-Maisonneuve borough, in keeping with good management practices, systematically produce a project approval file for every building construction and renovation project so as to ensure that all the project parameters are defined, enabling the council to make an informed decision.

4.3.1.D. Recommendation

We recommend that the Mercier–Hochelaga-Maisonneuve borough integrate the preparation of a *functional and technical program* during the planning of building construction and renovation projects.

4.3.1.E. Recommendation

We recommend that the Mercier–Hochelaga-Maisonneuve borough make sure that the decision-making files for contracts explicitly present all of the information needed by the council to make a decision.

Business unit's response:

Auditor general's comments:

The Bureau du vérificateur général had not received the action plan requested from the borough as of April 7, 2016.

4.3.2. Project Governance

4.3.2.A. Background and Findings

With respect to governance, one of the key elements for the success of a construction project is a team of experts from all of the fields involved, with an experienced project manager to oversee the coordination of the stages for performing the work and to monitor the work, the timeline and the budget.

Therefore, it is expected, particularly in the case of a large project, that the roles and responsibilities of the stakeholders would have been determined and made official before the start-up phase. In the case of the Annie-Pelletier pool project, we identified serious shortcomings in this respect.

First, no formal governance structure was established to identify the project stakeholders and define their roles and responsibilities. Moreover, the borough did not set up any multidisciplinary team for the Annie-Pelletier pool project. In fact, the responsibility for the entire project was assumed by a single person, a real estate manager who was named project manager. According to the information obtained, this individual was occasionally supported by the borough's technical agents and interns, whose responsibilities were adjusted as the project progressed. Finally, we noted that no project steering committee had been formally established to ensure project governance.

Thus, no formal team was set up to ensure the implementation of the project. As a result, the project manager played a central role since he had complete control over the project, without any accountability obligation to any committee.

4.3.2.B. Recommendation

We recommend that, when undertaking a large project, the Mercier–Hochelaga-Maisonneuve borough establish a project governance structure that clearly defines roles and responsibilities.

Business unit's response:

Auditor general's comments:

The Bureau du vérificateur général had not received the action plan requested from the borough as of April 7, 2016.

4.3.3. Project Follow-Up and Monitoring Mechanisms

4.3.3.A. Background and Findings

Regardless of the scope of an undertaking, project management is a crucial activity focused on three main components: the products or deliverables, the timeline and the costs. Mechanisms must be implemented to follow up on and monitor these elements in order to make sure that the expected quality and quantity of work are achieved within the timelines and the budget allocated for the project.

4.3.3.1. Monitoring Project Delivery

4.3.3.1.A. Background and Findings

In order to ensure the project was monitored, after issuing a call for tenders, the borough retained the services of a professional to supervise the work site on a permanent basis for the duration of the project. This individual was mandated to ensure overall management of the execution of all of the work, the coordination of the stakeholders (e.g., quality control laboratory) and the planning of provisional and definitive inspections.

Moreover, the work was also supposed to be supervised by the Consortium of architecture and engineering professionals. In this respect, the minutes of the start-up meeting state that, in keeping with the authority conferred upon to them by the contract, the professionals were responsible for validating the compliance of the work.¹⁰ Their mandate, according to the specifications and for the part concerning the construction, also included coordination of the

¹⁰ The minutes of the start-up meeting state: *[TRANSLATION]* "Within the context of the authority conferred upon them by the contract, the professionals validate the compliance of the work. If the contractor acts otherwise, he does so at his risk and shall assume all of the fees resulting from such a situation."

stakeholders, technical assistance during construction and recommendations with respect to the provisional and final acceptance of the work.

Thus, both the professionals and the work site supervisor, who supervised the work on a daily basis, were responsible for monitoring construction of the Annie-Pelletier pool. It should be noted that all of the stakeholders, including the borough project manager, reviewed the progress of the work on a weekly basis during the work site meetings.

Yet, despite these project monitoring mechanisms, we identified significant shortcomings in the management of the project on the part of both the external professionals, who were responsible for designing and monitoring the work, and the borough project manager, who was responsible for making sure the project ran smoothly.

- The omission of certain elements from the plans and specifications issued for construction purposes, although they were expected and provided for in the borough's needs program (e.g., the construction of a patio on the locker room roof), and major additions to reinforce the performance of the mechanical and electrical systems;
- The fortuitous discovery, near the end of the construction, that the slope connecting the deep end and the shallow end of the pool was non-compliant (with respect to the standards governing public pools), which resulted in significant delays and costs;
- A large number of shortcomings observed during the inspection visit for the delivery of the building resulting in the provisional acceptance by the borough being only partial—it did not concern all of the work due to the magnitude of the shortcomings.

In short, the project was a difficult one, and together, the problems identified had a significant impact on both the project costs and its timelines. Indeed, the inspection performed on March 12, 2014 by the professional for the provisional delivery (March 21) of the building by the contractor generated a significant number of shortcomings that the builder had to correct. Moreover, we were informed that the SGPI¹¹ reported significant deficiencies concerning the mechanical facilities.

We feel that monitoring of the performance of the work, which was the responsibility of the work site supervisor and the professionals, should have been more thorough so as to ensure the quality of the project was as expected.

¹¹ Division de l'expertise technique et assurance qualité immobilière of the SGPI.

4.3.3.1.B. Recommendation

We recommend that the Mercier–Hochelaga-Maisonneuve borough implement the mechanisms needed to ensure that the project is completed in keeping with the requirements stipulated in the reference documents.

Business unit's response:

Auditor general's comments:

The Bureau du vérificateur général had not received the action plan requested from the borough as of April 7, 2016.

4.3.3.2. Monitoring the Timeline

4.3.3.2.A. Background and Findings

The timeline is the focal point of project management, integrating all the project stages. It must be managed by a project manager, who can determine the progress of the project and, on an ongoing basis, assess the activities to be completed so as to be able to take the actions required to complete the work within the original budget and timeframe.

In the case of the Annie-Pelletier pool project, it is the contractor who provided the detailed construction schedule. He was responsible for informing the borough, at each work site meeting, of the progress of the work relative to the timeline established and for presenting an updated version of the timeframe in the event of changes. The scheduled delivery date for the pool was October 12, 2013. According to the order to start work, construction was to start on August 6, 2012, and end 432 days later, on October 12, 2013.

Both the professional and the work site supervisor were responsible for monitoring the construction timeline produced by the contractor. An examination of the work site meeting minutes, with respect to the timeline, enabled us to make the observations presented in Table 8:

Table 8 – Construction Timeline – Annie-Pelletier Pool

Timeline	Dates
Order to start work	August 6, 2012
Expected end date of work provided in the call for tenders	October 12, 2013
End date of work revised by contractor	November 21, 2013
Actual end date of work (provisional acceptance)	March 21, 2014
Inauguration of the pool	April 26, 2014
Delay	142 days

Given the lack of up-to-date timeline, we examined the minutes of the work site meetings so as to identify the elements concerning the follow-up of the timeline. During this examination, we noted that the contractor had extended the timeframe several times.

Thus, during the work site meeting of February 6, 2013, the delivery of the pool was postponed to October 18. Following this, the delivery of the pool was postponed a second time to November 21, 2013, as a result of the delay caused by a construction strike.

Following that, on November 14, 2012, the non-compliance of the slope of the pool (connecting the deep end to the shallow end) with public pool standards was noted. This design error, discovered fortuitously by the project manager, resulted in a significant delay of three weeks with respect to the timeline.

Let us also consider the possible impact on the timeline of the time needed to process the numerous requests for changes, particularly the addition of certain elements omitted by the designer in the plans issued for construction purposes (e.g., a rooftop patio on the locker room).

We feel that the management and follow-up of the construction of the indoor pool, both in terms of quality and respecting the timeline, entailed significant shortcomings. These observations require improvements in the borough's approach in order to ensure better follow-up of future projects.

4.3.3.2.B. Recommendation

We recommend that the Mercier–Hochelaga-Maisonneuve borough implement the measures needed to ensure that it can monitor and follow the timelines prepared for its projects.

Business unit's response:

Auditor general's comments:

The Bureau du vérificateur général had not received the action plan requested from the borough as of April 7, 2016.

4.3.3.3. Cost Estimates and Budget Monitoring

4.3.3.3.A. Background and Findings

Another factor that contributes to the success of a project is staying on budget, which first requires a detailed and precise breakdown of the costs for all of the elements needed for the project.

In the case of the Annie-Pelletier pool project, two construction cost estimates were prepared, the first of which was prepared during the feasibility study in February 2011. The second estimate, prepared by the Consortium of professional firms (August 29, 2013) based on the plans and specifications, including the portion concerning the construction work, was evaluated at \$10,658,401 and was used as a reference estimate for the analysis of the tenders received for the construction work.

At the end of the call for tenders process, the decision-making summary for the contract for the construction services indicated a difference between the reference estimate for the construction cost (\$10,658,401) and the lowest compliant tender (\$11,196,808). Since the difference of \$538,407 (5.1%) was less than 10%, the tender obtained for the construction of the pool was deemed acceptable.¹²

The mechanisms for following up on construction costs included progressive statements prepared by the firm of professionals as the work done by the contractor progressed; following that, the contractor's invoices were authorized by the project manager. We were also informed that all of the decisions were approved by the manager of the borough's Division des ressources financières, matérielles et informationnelles.

¹² In keeping with a guide published in 2001 and entitled *Documentation relative aux dossiers décisionnels soumis aux instances centrales* [TRANSLATION] *Documentation concerning the decision-making files submitted to the central authorities*, section 6 "Éléments de contenu et de présentation des dossiers décisionnels – guide spécifique : octroyer un contrat" [TRANSLATION] *Content and presentation of decision-making files – specific guide: awarding a contract*, any difference of more than 10% between the contractor's tender and the last estimate prepared must be rigorously explained.

We observed that the documentation for some of these progressive statements was incomplete (e.g., the payment certificate or the contractor's invoice was missing) and that, in two cases, despite the large amounts involved (\$1,572,331 and \$704,902), no documentation was provided to justify payments made to the contractor. We feel that these documents should be included with the progressive statements to ensure that the payments to the supplier are justified and documented.

Finally, because the borough is currently in litigation with the contractor with respect to this project, the overall cost of completing the project has not yet been determined. Therefore, we were unable to determine whether the budget established for this project was respected.

4.3.3.3.B. Recommendation

We recommend that the Mercier–Hochelaga-Maisonneuve borough make sure that all of the documents that should accompany progressive statements are provided before making a payment.

Business unit's response:

Auditor general's comments:

The Bureau du vérificateur général had not received the action plan requested from the borough as of April 7, 2016.

4.3.3.4. Project Closeout and Accountability

4.3.3.4.A. Background and Findings

The project closeout phase is necessary for taking stock of the project and reporting on the achievement of project objectives and the manner in which the funds and resources allocated to the project were managed. The closing balance sheet also serves to identify shortcomings in the management of the project so that the necessary measures can be taken to avoid repeating them in future projects.

The stakeholders informed us that, to date, no formal accountability report has been produced for the Annie-Pelletier pool project. We are of the opinion that, although the borough is in litigation with the builder concerning this project, a report should be prepared outlining the problems encountered during the work and the degree to which the objectives were achieved.

4.3.3.4.B. Recommendation

We recommend that the Mercier–Hochelaga-Maisonneuve borough submit accountability reports on building construction and renovation projects to council, so as to inform the latter about the extent to which the objectives are achieved in terms of the principal project management elements.

Business unit's response:

Auditor general's comments:

The Bureau du vérificateur général had not received the action plan requested from the borough as of April 7, 2016.

4.4. Project 3 – Bibliothèque Marc-Favreau

4.4.A. Background and Findings

Following the *Diagnostic des bibliothèques municipales de l'île de Montréal [TRANSLATION] Diagnosis of municipal libraries on the île de Montréal* report, published in July 2005, the City prepared a plan to upgrade its network of libraries throughout the boroughs over a 10-year period. According to this plan, the Rosemont–La Petite-Patrie (RLPP) borough, which had the worst diagnosis for library resources, was at the top of the priorities for service improvement.¹³

The potential development of the former Rosemont municipal workshops in 2006 gave the RLPP borough an opportunity to build a new library which was to be called the bibliothèque Marc-Favreau (BMF). This project, initially estimated at \$12.5 million, was announced in December 2007.¹⁴ It was to cover 3,000 m² and open at the end of 2009.

During that year, the City's executive committee confirmed the implementation of the *Programme de rénovation, d'agrandissement et de construction de bibliothèques (RAC)*. This program was implemented as part of a financial support agreement¹⁵ signed with the *Ministère de la Culture, des Communications et de la Condition féminine (MCCCFQ)* that includes an obligation to hold a regulated architectural competition calling on the services of architecture professionals for Architectural design and LEED® projects, using the concept of *libraries for the 21st century*.¹⁶ It should be noted that the projects supported by the RAC

¹³ Improvement in terms of service outlets, surface area, scope of the collections, etc.

¹⁴ Budget presented in the decision-making file for approval by the executive committee (December 2007).

¹⁵ Agreement on the cultural development of Montréal.

¹⁶ The concept of the *library of the 21st century* involves the use of new information technologies in the design and development of a library.

program receive funding from three sources: 40% from the Ministère de la culture, des Communications et de la Condition féminine, 40% from the City and 20% from the borough.

From the time it was approved in December 2007 until the start of construction in 2012, the project involved various units of the City, the RLPP borough, the SGPI¹⁷ and the Service de la Culture (SC). Construction work on the BMF took place from May 2012 to August 2013 and the library was inaugurated in December 2013.

Our audit covered the decision-making process, the management frameworks and the project management practices used to complete the BMF project, including the mechanisms for monitoring and controlling quality, costs, and the project timeline.

4.4.1. Project Management Framework

4.4.1.A. Background and Findings

As indicated in Section 4.1.1, the CGP was not applied in the case of the BMF project, although it was subject to that framework, since it came into effect in 2010. We feel that the borough must execute its large-scale projects in keeping with the CGP.

As of its very nature, the administrative process¹⁸ set out in the SC is not as exhaustive as the CGP, its purpose being to specify the financing approval process for library projects through the RAC program. In this respect, our audit confirmed that the first City library project undertaken under the RAC program, namely the BMF, followed the financing approval process and respected the requirements of the RAC program in terms of architectural design and LEED® construction.

The planning and implementation of the BMF project involved personnel from the borough, the SGPI and the SC, with responsibilities evolving over the course of the project. The structure implemented involved sharing responsibilities as follows:

- The borough was responsible for approving and planning the project;
- The SGPI was responsible for undertaking and completing the project;
- The SC was responsible for overseeing the eligibility of the project for the RAC program.

¹⁷ The Service de la gestion et de la planification immobilière, formerly the Direction des stratégies et transactions immobilières.

¹⁸ *Processus administratif et décisionnel pour la construction de bibliothèques : méthodologie pour les suivis budgétaires [TRANSLATION] Administrative and decision-making process for the construction of libraries: methodology for budget monitoring*, December 2008, revised in August 2009.

In 2008, the borough produced a preliminary program¹⁹ for the project, which, according to the individuals we interviewed, served as a PAF. When we consulted this preliminary program, we were not able to identify all of the elements that usually make up a PAF, specifically those concerning governance and the financial aspects of the project.

We are of the opinion that a PAF should have been produced in keeping with good practices, so that the project stakeholders and the authorities could have a detailed overview of the issues and principal aspects, such as the scope, the governance structure, the deliverables and the resources required to ensure successful completion of the project.

Moreover, our audit also focused on the process for awarding contracts used by the BMF project, and we noted that the usual decision-making process was followed. The call for tenders documents were produced for all of the project stages, from the architecture competition, following which the winner was given a mandate to prepare plans and specifications and supervise the work, up to the time the construction contract was awarded. Thus, all of the authorizations were obtained for the awarding of the professional services and construction contracts.

4.4.1.B. Recommendation

We recommend that the Rosemont–La Petite-Patrie borough make sure that the projects that meet the criteria of the *Cadre de gouvernance des projets et des programmes de gestion d'actifs municipaux [TRANSLATION] Governance Framework for Municipal Asset Management Projects and Programs* are undertaken in keeping with that framework.

Business unit's response:

[TRANSLATION] The RLPP borough will make sure that future large-scale projects meet CGP criteria. (Planned completion: March 2016)

4.4.1.C. Recommendation

We recommend that the Rosemont–La Petite-Patrie borough, in keeping with good project management practices, systematically produce a project approval file for every real property project so as to ensure that all the project parameters are defined, enabling the council to make an informed decision.

¹⁹ The *Preliminary program* presents the objectives of the future library, including in terms of its general characteristics, its functional elements, lay-out and design.

Business unit's response:

[TRANSLATION] The RLPP borough will produce a PAF for future large-scale real estate projects. (Planned completion: March 2016)

4.4.2. Project Governance

4.4.2.A. Background and Findings

With respect to governance, one of the key elements for the success of a construction project is a team of experts from all of the fields involved, with an experienced project manager to oversee the coordination of the stages for performing the work and to monitor the work, the timeline and the budget.

Therefore, it is expected, particularly in the case of a large project, that the roles and responsibilities of the stakeholders would have been determined and made official before the project start-up phase. In the case of the BMF project, we identified serious shortcomings in these two areas:

- A project manager was not designated for the entire duration of the project;
- Each of the business units involved designated a manager for a part of the project, without anyone being actually answerable or accountable for all of the work. This resulted in silo management and a lack of consistency;
- The three employees assigned to this project by the borough (a manager from the Division des sports et des loisirs, a manager from the Division des ressources financières et matérielles and a planning adviser) had neither expertise nor experience in project management;
- The project was handled in an empirical manner and, given the lack of project management skills, the borough stakeholders learned how to undertake a specialized project of this scope on the fly as the project progressed;
- The division of roles and responsibilities among the partners lacked clarity or was simply not defined. It was only at the construction stage that the borough realized the scope of its involvement in the implementation of the library. It had not realized that it was responsible for the interior facilities, believing that, by giving the SGPI a mandate to build the BMF, the latter would deliver a complete and functional (turnkey) library;
- After the borough came to this realization, in August 2012, a project manager was hired to take charge of the activities under its responsibility, namely acquiring and coordinating the installation of equipment and facilities, coordinating tasks leading to the inauguration of the library and starting up operations. The project manager feels that the scope and diversity of the specialties and tasks for which the borough was responsible deserved more support on the part of the SC, which had library expertise;

- Personnel turnover was another constraint raised by the individuals we interviewed from both the borough and the SGPI. For instance, one of the two borough division managers involved in the project, who was responsible for the project at the time, terminated his employment before the new project manager was hired, and the other followed suit shortly thereafter. Responsibility for the project at the SGPI also changed hands several times during the course of the project. This occurred in a context in which the governance system was not clearly defined and had repercussions on project continuity.

All of these deficiencies are the result of shortcomings that are generally encountered when a PAF is not prepared at the project planning stage specifically implementing a project governance structure and defining the roles and responsibilities of the stakeholders. The shortcomings noted entail the risk that both human and financial resources will not be allocated in an optimal manner, that budgets will be exceeded and that the objectives will not be achieved (e.g., the needs of the project expressed in terms of functional, design or library parameters).

Knowing that this type of project is not a common undertaking for the boroughs and considering the recurrence of library projects in the City's upgrade plan, we are of the opinion that the SC, together with the SGPI, should play a sustained leadership role and support the boroughs in the planning and implementation of future library projects. They could make the most of the expertise developed through library projects completed or in progress as part of the RAC program, developing technical benchmarks and business practices that could benefit future projects.

4.4.2.B. Recommendation

We recommend that the Rosemont–La Petite-Patrie borough, in keeping with good project management practices, systematically designate a project manager to be responsible for planning, implementing and following up on real property projects.

Business unit's response:

[TRANSLATION] The RLPP borough will systematically designate a project manager for future large-scale projects. (Planned completion: March 2016)

4.4.2.C. Recommendation

We recommend that, when undertaking projects, the Rosemont–La Petite-Patrie borough clearly establish a governance structure, specifying the roles and responsibilities of all the stakeholders involved.

Business unit's response:

[TRANSLATION] A RACI (Responsible, Approves, Collaborates and is Informed) project charter will be prepared for all future large-scale projects so as to standardize the roles and responsibilities of all of the project stakeholders. (Planned completion: March 2016)

4.4.2.D. Recommendation

We recommend that the Service de la culture, in co-operation with the Service de la gestion et de la planification immobilière, provide sustained support to the boroughs for future library building and renovation projects.

Business units' responses:

SERVICE DE LA CULTURE

[TRANSLATION] Addition of personnel: On February 29, 2016, the Directeur Général authorized the addition of human resources for both the SC and the SGPI. The SC will be able to count on three additional individuals and the SGPI on four. With a total of 18 people (7 at the SC and 11 at the SGPI), we will have the personnel we need to adequately support the boroughs in their projects from start to finish. (Planned completion: June 2016)

Revise and clarify the roles and responsibilities of the partners in collaboration with the SGPI by signing a "Project Charter" with the boroughs concerned. With respect to the general governance of the program, we will implement an "RAC program management plan." For each project, this plan will identify the main deliverables as well as the maximum duration of each of the project's principal steps. (Planned completion: May-June 2016)

Develop, update and clarify the standards or tools used during the concept and preliminary project development stages as well as during the planning of services and spaces. (Planned completion: September 2016)

SERVICE DE LA GESTION ET DE LA PLANIFICATION IMMOBILIÈRE

[TRANSLATION] Preparation and adoption by the Direction générale of a RAC defining the best project management practices, the stakeholders and the roles and responsibilities of each. This plan will focus on determining the principal parameters and deliverables, which will be monitored throughout the duration of the projects covered by the program. It will ensure follow-up of the various projects and allow comparisons between them, making it possible to integrate the lessons learned into each new project or stage.

Following the adoption of the management plan, a governance structure adapted to take into consideration the context and the needs of the stakeholders will be implemented. This structure will consist of a steering committee that includes the

managers representing the party requesting the project (SC), the boroughs and the SGPI, which will monitor the program and be involved at key moments during the project. (Planned completion: June 2016)

4.4.3. Project Follow-Up and Monitoring Mechanisms

4.4.3.A. Background and Findings

Regardless of the scope of an undertaking, project management is a crucial activity focused on three main components: the products or deliverables, the timeline and the costs. Mechanisms must be implemented to follow up on and monitor these elements in order to make sure that the expected quality and quantity of work are achieved within the timelines and the budget allocated for the project.

4.4.3.1. Monitoring Project Delivery

4.4.3.1.A. Background and Findings

The SGPI assigned the professional (the design architect) responsible for supervising the work site to monitor the execution of the project. He was responsible for making sure that the construction work done by the contractor complied with the plans and specifications and that the timeline was respected.

Moreover, the City's laboratory was involved in critical steps of the construction work (e.g., during the waterproofing of the foundations) and was responsible for quality control and evaluating the compliance of the materials used by the contractor.

The library project was to obtain LEED® certification, in keeping with the City's sustainable development policy and the requirements of the RAC program. A mechanism to ensure certification was achieved was implemented at the start of the project. In November 2015, the BMF obtained LEED® Silver certification.

4.4.3.2. Monitoring the Timeline

4.4.3.2.A. Background and Findings

The timeline is the focal point of project management, integrating all the project stages. It must be managed by a project manager, who can determine the progress of the project and, on an ongoing basis, assess the activities to be completed so as to be able to take the actions required to complete the work within the original budget and timeframe.

In the case of the BMF project, follow-up of the construction timeline was to be ensured by the work site supervisor based on the work schedule, the most recent version of which prepared by the contractor dated back to the start of the work (May 20, 2012), with an expected duration of 14 months. Moreover, the SGPI, which was mandated by the borough to execute the project, appointed a contract manager who was specifically responsible for following up on the work timeline on a weekly basis.

Table 9 presents a comparison of the planned and actual end dates of the work.

**Table 9 – Construction Timeline
for the Bibliothèque Marc-Favreau**

Timeline	Dates
Order to start work	April 2012
End date for the work provided in the timeframe ^[a]	June 2013
Actual end date of work	August 2013
Delay	2 months

^[a] According to the call for tenders documents.

There were shortcomings with respect to monitoring the construction timeline. In fact, the contractor only informed the borough about a delay in the project four months before the end date, without providing any explanations or revised timelines. According to the information obtained, despite the insistence of the architect and the SGPI's contract manager during work site meetings, the contractor refused to provide an updated schedule. It appears that no stakeholder had any leverage to persuade the contractor to do so.

As a consequence of the contractor's refusal to provide an up-to-date schedule of the work, the borough was not able to evaluate the impact of the delay on the delivery of the building to allow it to adequately re-organize the work remaining to be done after the construction work. Moreover, the stakeholders we interviewed also said that, under the circumstances, it was more difficult for the SGPI to coordinate quality control of the work or the timing of other specialties, since it did not know when the work in question would be done by the contractor. We are of the opinion that this situation must be corrected for future construction projects handled by the SGPI so as to allow all project stakeholders to be informed about actions that are in progress or have been completed and thereby ensure that the project is completed on time.

4.4.3.2.B. Recommendation

We recommend that the Rosemont–La Petite-Patrie borough, together with the Service de la gestion et de la planification immobilière, take measures to obtain up-to-date project timelines so that they can ensure follow-up and take the actions required to ensure that projects are completed on time.

Business units' responses:

ROSEMONT–LA PETITE-PATRIE BOROUGH

[TRANSLATION] Article 5.1.5.3 of the “Cahier des clauses administratives spéciales” of the specifications clearly indicates that the contractor must provide an updated timeline every 30 days or at the manager’s request.

In the case of the next large-scale project, the RLPP borough will make sure that the SGPI takes the necessary steps to obtain up-to-date timelines. (Planned completion: March 2016)

SERVICE DE LA GESTION ET DE LA PLANIFICATION IMMOBILIÈRE

[TRANSLATION] Based on a standard timeline developed for managing RAC projects, develop and implement a timeline monitoring mechanism covering the entire life cycle of a project, measuring the various impacts (quality and implementation) and illustrating the progress made on each project activity. (Planned completion: December 2016)

4.4.3.3. Cost Estimates and Budget Monitoring

4.4.3.3.A. Background and Findings

Another factor that contributes to the success of a project is staying on budget, which first requires a detailed and precise breakdown of the costs for all of the elements needed for the project.

In the case of the BMF, a first overall estimate of the cost of the project (\$12.5 million) was prepared in the start-up phase to be approved by the authorities.

In keeping with good practices, this budget estimate was subsequently revised during various stages in the project design. Based on the FTP and at various times during the preparation of the plans and specifications, estimates were produced by a firm specializing in cost estimates. A final estimate of the construction costs, produced by the firm of architects before the call for tenders was issued, was used to analyze the tenders received. Table 10 presents the last two construction cost estimates and the lowest tender retained.

**Table 10 – Evolution of Construction Cost Estimates
for the Bibliothèque Marc-Favreau and Tender Retained**

Date	Description	Construction cost (with taxes and contingencies) \$ ^[a]
February 2011	Specialized firm – 100% in keeping with plans and specifications	9,930,208
June 2011	Professional – 100% in keeping with plans and specifications	10,805,772
September 2011	Construction contractor – Tender retained	11,570,814

^[a] Source: *Évolution des coûts estimatifs des travaux de construction en cours de conception [TRANSLATION] Evolution of the construction cost estimates during the design phase*, SGPI, adjusted in keeping with contingencies and applicable taxes.

According to the decision-making file for the contract to be awarded to the construction contractor, there was a difference of approximately 7% (\$765,042) between the last estimate (\$10,805,772) and the lowest compliant tender (\$11,570,814). Since the difference was less than 10%, the tender obtained for the construction of the BMF library was deemed acceptable.

Moreover, we also looked at the overall budget for the project which, in addition to the construction cost, included professional fees, contingency fees, incidental expenses and the cost of the equipment and initial collections. The evolution of the overall budget for the project including contingencies, incidental expenses and taxes, is provided below:

**Table 11 – Evolution of the Overall Budget Estimate^[a] and Actual Cost^[e]
for the Bibliothèque Marc-Favreau Project**

Budget estimate	Approval dates	Overall cost (with taxes and contingencies) \$
Initial budget (FTP) – Approval of the project by the executive committee ^[b]	December 2007	12,500,000
Revised budget (plans and specifications) – Increase authorized by the executive committee ^[c]	May 2010	17,063,676
Revised budget – Increase for the cost of the work ^[d]	March 2012	19,432,673
Actual overall cost of the project ^[e]	2014	19,254,161

^[a] Source: *Evolution of the budget from 2009 to 2014*, produced by the SGPI.

^[b] The budget based on the FTP (\$7.5 million for construction and fees and \$5 million for the initial collection).

^[c] The revised budget, based on the plans and specifications (\$12.06 million for construction and fees).

^[d] The revised budget, after awarding the contract.

^[e] Source: Unofficial calculation of the cost of the project by the RLPP borough.

The difference between the budget authorized in 2010 (\$17,063,676) and the adjusted estimate prepared in 2012 (\$19,432,673) that took into account changes in the construction cost and their impact on the other components of the overall cost (fees, contingencies and incidental expenses) required an increase in the overall envelope for the project of more than \$2 million. The decision-making summary produced to this end justified this considerable difference, specifically as a result of the overheated construction market, the inflation rate and the subsequent modifications made to the project.

Yet, according to the stakeholders we interviewed (SGPI), this difference was caused by the fact that, given the lack of a reference to a similar project within the City, the estimates were based on *standard* construction projects and did not reflect the requirements of the RAC program for Architectural design and LEED® characteristics. We are of the opinion that the estimates produced by the specialized cost estimation firms should be more representative of the nature of the project. Considering the size of the investment, any variation (%) with respect to the estimated cost has significant impacts. Therefore, it would be pertinent for the SGPI and the borough to identify the factors that had an impact on the cost of the project in order to be able to estimate the cost of future library projects in a more pragmatic manner.

Moreover, with respect to monitoring project costs, our audit revealed that this was done by the borough and the SGPI for their respective parts.

4.4.3.3.B. Recommendation

We recommend that the Rosemont–La Petite-Patrie borough, together with the Service de la gestion et de la planification immobilière, take measures to ensure that construction project cost estimates reflect the nature and the characteristics of the projects before being presented to the council.

Business units' responses:

ROSEMONT–LA PETITE-PATRIE BOROUGH

[TRANSLATION] The RLPP borough will make sure that the cost estimates for large-scale projects reflect the nature and characteristics of the projects before they are presented to the borough council. (Planned completion: March 2016)

SERVICE DE LA GESTION ET DE LA PLANIFICATION IMMOBILIÈRE

[TRANSLATION] Although the SGPI has developed expertise in the evaluation and monitoring of costs, it will hire an internal resource in quantity surveying to compile data concerning projects and provide support to the professional when projects are undertaken. As needed, the SGPI will also call on external resources to cover the project's special characteristics. (Planned completion: December 2016)

4.4.3.4. Project Closeout and Accountability

4.4.3.4.A. Background and Findings

The project closeout phase is necessary for taking stock of the project and reporting on the achievement of project objectives and the manner in which the funds and resources allocated to the project were managed. The closing balance sheet also serves to identify shortcomings in the management of the project so that the necessary measures can be taken to avoid repeating them in future projects.

In the case of the BMF project, we learned of a post-mortem meeting involving the borough and SGPI stakeholders that gave them an opportunity to discuss the main weaknesses in the project. However, there was no follow-up to this meeting.

Given the absence of a clearly defined governance structure, the responsibility for accountability was not defined either. As a result, no report on the BMF project was submitted to management and no project closing balance sheet was produced. Both the SGPI and borough stakeholders stated that these elements were not part of their practices.

We are of the opinion that producing project closing elements should be included in the practices so as to ensure accountability for future projects. Moreover, considering all of the shortcomings noted with respect to the management of the BMF project, a project report is necessary.

4.4.3.4.B. Recommendation

We recommend that the Rosemont–La Petite-Patrie borough submit accountability reports on building construction and renovation projects to council so as to inform the latter about the extent to which the objectives are achieved in terms of the principal project management elements.

Business unit's response:

[TRANSLATION] The SGPI is responsible for undertaking and completing the project. It hires all of the external professionals and is responsible for paying them. We are of the opinion that the SGPI should produce the accountability report.

For our future large-scale projects, we will submit accountability reports to the borough council. (Planned completion: March 2016)

4.5. Project 4 – Caserne 32

4.5.A. Background and Findings

In its Schéma de couverture de risques en sécurité incendie 2009-2013 [TRANSLATION] 2009–2013 fire risk coverage plan (coverage plan), adopted by the Montréal agglomeration in December 2008, the Service de sécurité incendie de Montréal (SIM) provided various measures intended to maximize fire protection on the territory of the agglomeration. These measures specifically included the construction of Caserne 32 in the Rivière-des-Prairies–Pointe-aux-Trembles borough in order to reduce response time and ensure adequate fire protection in this sector of the City.

This project, which the SIM estimated would cost approximately \$5.7 million in 2009, involved close cooperation between the SIM and various units of the SGPI, the principal stakeholder responsible for the project. In fact, the SIM assigned this project to the SGPI, which was supposed to propose a location for the construction of the future Caserne 32 and build it. This new fire station had to satisfy certain requirements (e.g., the functional organization of the space for the firemen and equipment) that remained to be determined by the SIM, in keeping with the location (property) that would first be approved. The project, from the design to the provisional delivery of the building by the builder, took place from October 2012 to November 2013. Caserne 32 was put into service in February 2014.

Our audit covered the decision-making process, the management frameworks and the project management practices used for the Caserne 32 project, including the mechanisms for monitoring and controlling quality, costs, and the project timeline.

4.5.1. Project Management Framework

4.5.1.A. Background and Findings

The Caserne 32 project was not subject to the CGP since it was a medium-sized project, based on the fact that its budget (\$5.7 million) was less than \$10 million.

Despite the absence of a project management framework for a project of this size, it was expected that good project management practices would be applied by the SGPI, which was assigned to complete the project. In keeping with these good practices, a PAF must be prepared and approved by the authorities during the start-up phase of a project.

In the case of the Caserne 32 project, the individuals we interviewed said that the project, for which the SIM was responsible, was justified through the adoption of the coverage plan in

2008. Nevertheless, we noted that the information it contained did not include all of the elements expected of a PAF since only the need for building a new fire station in the eastern sector of the island that was to be functional for 2013 was briefly mentioned.

We are of the opinion that a PAF should have been produced by the SIM, in cooperation with the SGPI, so that the project stakeholders and the authorities could have a detailed overview of the issues and principal aspects, such as the scope, the governance structure, the deliverables and the resources required to ensure successful completion of the project.

It should also be noted that, although completion of the project was delegated to the SGPI, the SIM played an active role, including in determining the criteria for the location of the site²⁰ to be acquired and the functional parameters required for the future fire station.

4.5.1.B. Recommendation

We recommend that the Service de sécurité incendie de Montréal, in cooperation with the Service de la gestion et de la planification immobilière, make sure that a project approval file is systematically produced for every building construction and renovation project, in keeping with good management practices.

Business units' responses:

SERVICE DE SÉCURITÉ INCENDIE DE MONTRÉAL

[TRANSLATION] The SIM will collaborate on the preparation of the PAFs prepared by the SGPI. (Planned completion: immediate)

SERVICE DE LA GESTION ET DE LA PLANIFICATION IMMOBILIÈRE

[TRANSLATION] The SGPI will prepare a PAF for all of the large-scale building construction and renovation projects, worth more than \$10 million, as of the project start-up phase, in keeping with administrative framework C-OG-DG-P-14-001. (Planned completion: immediate)

4.5.2. Project Governance

4.5.2.A. Background and Findings

With respect to governance, one of the key elements for the success of a construction project is a team of experts from all of the fields involved, with an experienced project manager to

²⁰ The site to be acquired for building Caserne 32 had to meet the requirements of a maximum response time to ensure adequate protection of the citizens, based on the numerous housing developments undertaken in the sector of the Rivière-des-Prairies–Pointe-aux-Trembles (RDP–PAT) borough.

oversee the coordination of the stages for performing the work and to monitor the work, the timeline and the budget. Therefore, it is expected that the roles and responsibilities of the stakeholders would have been determined and made official before the project start-up phase.

In the case of the Caserne 32 project, our audit revealed that no document was produced outlining the roles and responsibilities of the individuals assigned to the project or the deliverables for which they were responsible.

According to the information obtained, the SIM representatives involved in this project were the section manager responsible for real estate resources and an architecture technical agent, who was assisted by other colleagues. On the SGPI side, under the supervision of an SGPI section manager responsible for the project, a real estate manager was involved in the planning, design and construction activities, along with a senior technical agent designated to supervise the work site.

The SIM stakeholders informed us that there is a virtually permanent structure for fire station construction and renovation projects and that the responsibilities remain the same from one project to another, with only the stakeholders changing. The SGPI officials we interviewed stated that each stakeholder from their department involved in a project is aware of her or his mandate (responsibilities), which is defined in the job description.

In our opinion, this definition of responsibilities is not sufficient to ensure good governance of a project. The governance structure for the Caserne 32 project should have been clearly established in order to officially define the roles, responsibilities and deliverables for which the various stakeholders were responsible and to establish the interdependence among them. Otherwise, there is a risk that the decision-making, the regular follow-up of the project and the coordination of the stages will not be handled in a manner that would ensure that the project objectives in terms of time, costs and quality will be achieved.

4.5.2.B. Recommendation

We recommend that the Service de sécurité incendie de Montréal, in cooperation with the Service de la gestion et de la planification immobilière, make sure that a project governance structure is clearly established and defines the roles, responsibilities and deliverables of the various stakeholders involved for building construction and renovation projects.

Business units' responses:

SERVICE DE SÉCURITÉ INCENDIE DE MONTRÉAL

[TRANSLATION] The SIM will make sure that the governance framework is defined for its building construction and renovation projects. (Planned completion: July 2016)

SERVICE DE LA GESTION ET DE LA PLANIFICATION IMMOBILIÈRE

[TRANSLATION] A governance framework defining the roles, responsibilities and deliverables for which the various stakeholders are responsible will be systematically defined for all building construction and renovation projects, as of the project start-up phase. (Planned completion: June 2016)

4.5.3. Project Follow-Up and Monitoring Mechanisms

4.5.3.A. Background and Findings

Regardless of the scope of an undertaking, project management is a crucial activity focused on three main components: the products or deliverables, the timeline and the costs. Mechanisms must be implemented to follow up on and monitor these elements in order to make sure that the expected quality and quantity of work are achieved within the timelines and the budget allocated for the project.

4.5.3.1. Monitoring Project Delivery

4.5.3.1.A. Background and Findings

Following the call for tenders process for the design-construction phase of the Caserne 32 project, a mandate was given to an external firm for architecture services for the design and construction phases.

The team of SGPI professionals was to supervise the firm during the project. For this purpose, follow-up mechanisms were implemented involving both the SGPI and the SIM. Quality control of the work also required the involvement of the City's laboratory, which performed compliance tests on the materials used by the contractor.

Moreover, as provided in the call for tenders documents, an amount corresponding to 10% of the value of the work was held back by the City as a guarantee for the work.

A special deduction will only be paid once confirmation of LEED® certification has been obtained by the City, which, at the time of writing this report, had not yet been achieved.

4.5.3.2. Monitoring the Timeline

4.5.3.2.A. Background and Findings

The timeline is the focal point of project management, integrating all the project stages. It must be managed by a project manager, who can determine the progress of the project and, on an ongoing basis, assess the activities to be completed so as to be able to take the actions required to complete the work within the original budget and timeframe.

The decision-making summary concerning the awarding of the contract for the design and construction of Caserne 32 indicated that the fire station was to be operational no later than December 2013. Any additional delay would result in a failure to meet the timeframe for planning the implementation of the coverage plan. According to the timeline presented in the decision-making summary, the design and construction work was to be done from November 2012 to December 2013, which did not allow for any delays to build up during the course of the project.

The work site supervisor was responsible for following up on the construction work timeline, based on the work schedule, the most recent version of which, produced by the contractor in April 2012, indicated provisional receipt of the building on November 27, 2013.

Table 12 – Construction Timeframe for Caserne 32

Timeline	Date
Order to start work	November 2012
End date for the work provided in the work schedule ^[a]	November 2013
Actual end date of work	February 2014
Delay	3 months

^[a] In keeping with the call for tenders documents.

Yet during our audit, we were informed that the project had been delayed by approximately three months, since the provisional receipt of the building only took place on February 21, 2014. In a letter addressed to the SGPI, the contractor explained that the delay was caused by the additional time required by Hydro-Québec and the Commission des services électriques de Montréal to complete the underground wiring of the fire station. According to the information obtained, this work was beyond the contractor's control.

It should be noted, moreover, that the start of the construction work was delayed by two months as a result of the time it took the City to issue a construction permit to the firm. We

consider it quite unacceptable that a time lag was caused by administrative delays that could have been avoided with better planning.

It should be noted that no up-to-date work schedule was produced by the firm after the version presented in April 2012. As a result, the SGPI was not able to adequately monitor the progress of the work or take the necessary measures to reduce the impact of the delays on the project which, moreover, had an impact on achieving the objectives provided in the coverage plan.

4.5.3.2.B. Recommendation

We recommend that the Service de la gestion et de la planification immobilière make sure that it has an up-to-date timeline for the work so as to be able to monitor the extent to which the project timeline is followed and alleviate the consequences of delays.

Business unit's response:

[TRANSLATION] Develop and implement a timeline monitoring mechanism covering the entire life cycle of a project, measuring the various impacts (quality and implementation) and illustrating the progress made on each project activity. The SGPI will develop and use a model timeline that will serve to accelerate, better evaluate and standardize RAC program project management processes during the implementation phase.

*Also, for all projects under its responsibility, the SGPI will insist on the production of a project schedule in keeping with the general administrative clauses, the special administrative clauses and the letter ordering the start of the work. **(Planned completion: December 2016)***

4.5.3.3. Cost Estimates and Budget Monitoring

4.5.3.3.A. Background and Findings

Another factor that contributes to the success of a project is staying on budget, which first requires a detailed and precise breakdown of the costs for all of the elements needed for the project.

For the Caserne 32 project, a preliminary estimate was prepared in the project statement provided in the SIM's coverage plan. The cost was estimated at \$5,046,000 in 2008, based on the known value of the last fire station built²¹ by the SGPI, in 2006.

²¹ Caserne 52 was built in 2006.

A second cost estimate was then prepared by a construction economist from an external firm, based on the FTP in December 2011, before the call for tenders was issued in June 2012. According to the report provided by that firm, the estimate (\$5,485,882) took all of the project needs into account.²² Following this, the SGPI made adjustments to the last estimate, evaluating the project at \$5,935,568. The evolution of the project budget is summarized in Table 13.

Table 13 – Evolution of the Design-Construction Budget for the Caserne 32 Project and Real Cost of the Project

Budget estimate	Date	Overall cost (with taxes and contingencies) \$
Initial budget – Coverage plan ^[a]	2008	5,046,000
Revised budget – Estimate from the external firm (FTP) ^[b]	December 2011	5,485,882
Modified budget – SGPI	September 2012	5,935,568
Tender retained – Design-construction	October 2012	6,590,454
Actual cost of the project – Design-construction	September 2014	6,302,644

^[a] The initial budget provided in the coverage plan.

^[b] The estimated budget prepared by the external firm, based on the PFT.

Thus, the difference presented in the decision-making summary for the design-construction contract between the adjusted amount (\$5,935,568) and the lowest compliant tender (\$6,590,454) was 11.03%. We noted, however, that the decision-making file did not clearly present an analysis and justification of this difference (11.03%).

We are of the opinion that, in order to enable the authorities to be able to make an informed decision with respect to awarding the contract, the SGPI should have included a detailed analysis and explanation of this difference.

Moreover, we are of the opinion that the SGPI should also have provided the estimate actually produced by the external firm (\$5,485,882) since, if it had been compared with the lowest compliant tender, the difference would have been 20.13%, which could have compromised the possibility of completing the project within the timeframe provided in the coverage plan.

²² The estimate prepared by the external firm specifically took into account the overhead costs, administrative fees/profits, indexing for construction done in 2012–2013, design and construction contingencies, as well as the costs incurred for obtaining LEED® Gold certification and taxes.

During our audit, we raised the importance of the difference between the estimates prepared before the contract was awarded and the value of the tender retained (data provided in the preceding table). The SGPI stakeholders said that the overall budget for the Caserne 32 project was based on an approximate reference of \$1.5 million per garage door, to which were added inflation since 2006 and the estimated value of the technological improvements and the specific needs of the project. The stakeholders agree that this reference is not representative of the actual cost for building a fire station in 2014, since technology and design characteristics have evolved since the last fire station was built, in 2006. We are of the opinion that the cost estimates prepared by the SGPI should reflect the characteristics of the project and the market conditions so as to ensure that an appropriate budget is prepared for the project and the authorities can make an informed decision.

With respect to monitoring the project costs, progressive payments were made as the work was completed. Moreover, all of the change orders submitted by the contractor, as a result of unexpected work site conditions or requests from the client, were approved by the architect, the engineer, the contractor, the SGPI contract manager and his supervisor. In addition to the follow-up done by the SGPI, the SIM also followed up on payments in order to ensure that the project stayed on budget.

Based on the progressive statements, the actual cost (design-construction) of the project was \$6,302,644, which was less than the amount tendered, since only 33% of the amount allocated for contingencies was used.

4.5.3.3.B. Recommendation

We recommend that the Service de la gestion et de la planification immobilière make sure that the differences presented in the decision-making files for awarding contracts, based on the last estimate made, are justified so as to enable the authorities to make informed decisions.

Business unit's response:

[TRANSLATION] For any file presenting a difference between the lowest compliant tender and the last estimate prepared, the SGPI will include a detailed analysis in the decision-making file, with a clear breakdown justifying the differences. (Planned completion: immediate)

4.5.3.3.C. Recommendation

We recommend that the Service de la gestion et de la planification immobilière make sure that all of the cost estimates for construction projects reflect the nature and characteristics of the projects so that Service de sécurité incendie de Montréal can plan an appropriate budget for the project and the authorities can make an informed decision.

Business unit's response:

*[TRANSLATION] Although the SGPI has developed expertise in the evaluation and monitoring of costs, it will hire an **internal resource in quantity surveying** to compile data concerning projects and provide support to the professional when projects are undertaken. As needed, the SGPI will also call on external resources to cover the project's specific characteristics. (Planned completion: December 2016)*

4.5.3.4. Project Closeout and Accountability

4.5.3.4.A. Background and Findings

The project closeout phase is necessary for taking stock of the project and reporting on the achievement of project objectives and the manner in which the funds and resources allocated to the project were managed. The closing balance sheet also serves to identify shortcomings in the management of the project so that the necessary measures can be taken to avoid repeating them in future projects.

We noted that, for the Caserne 32 project, no accountability report was planned by the individuals responsible for the project within either the SGPI or the SIM. Accountability was handled instead by the technical agents, the section manager and the SGPI division manager responsible for the projects. This accountability used an informal, verbal approach to keep the stakeholders informed about the progress of the project.

At the end of the Caserne 32 project, no accountability report or closing balance sheet was prepared. The SGPI stakeholders assigned to the project explained that this was because LEED® certification had not yet been obtained. Steps have been taken to obtain LEED® certification since February 2014, the date on which the fire station was delivered. Almost two years have gone by since the end of the work and no accountability report or closing balance sheet has been produced. The project *momentum* has been lost and there is a risk that other fire station construction projects will not benefit from the experience of this project.

Both the value and the recurrence of projects within the SGPI make the production of such closing balance sheets essential. The SGPI's project management process must implement project accountability mechanisms.

4.5.3.4.B. Recommendation

We recommend that the Service de la gestion et de la planification immobilière submit project accountability reports on building construction and renovation projects to the Service de sécurité incendie de Montréal, so as to inform the latter of the extent to which the objectives are achieved in terms of the principal project management elements.

Business unit's response:

*[TRANSLATION] The next major reorganization of the SGPI provides for the establishment of a **project office**, which will define and implement project follow-up and monitoring mechanisms, specifically including project accountability. (Planned completion: December 2016)*

4.5.3.4.C. Recommendation

We recommend that the Service de sécurité incendie de Montréal submit accountability reports on building construction and renovation projects to council, so as to inform the latter of the extent to which the objectives are achieved in terms of the principal project management elements.

Business unit's response:

*[TRANSLATION] The SIM, in cooperation with the SGPI, will submit an **accountability report** to the council, in keeping with the project follow-up and monitoring mechanisms that will be implemented by the project office. (Planned completion: January 2017)*

5. Conclusion

Sound project management is a process intended to organize the progress of operations to ensure the objectives are achieved within the allocated time limits and budget. Our audit has revealed serious shortcomings in building construction and renovation project management practices that require particular attention on the part of those responsible for the business units audited and City management.

At the outset, we noted that, although the City has adopted a governance framework for managing large-scale projects, it is not systematically applied to the projects that are subject to it. Furthermore, there is no governance framework for smaller-scale projects. As a result, the work methods used by the business units are not homogeneous and are not systematically aligned with good project management practices.

Moreover, the project governance structure, which officially defines the roles and responsibilities of the stakeholders, is generally lacking, which creates confusion and inefficiency. In fact, a project manager was not systematically designated to ensure continuity and overall monitoring of a project and, when one was designated, that person was not necessarily qualified to ensure sound project management. It should also be noted that the boroughs that opted to manage their projects independently did not have the competencies required to ensure sound management. Yet, considering the scope of the projects relative to the boroughs' budget capacities, the risk is all the greater.

On the topic of project follow-up and monitoring, shortcomings were noted in terms of respecting the expected quality of the work and the timelines and budget allocated for the project. We first noted that the client's expectations were, for certain projects, incompletely or imprecisely specified, which resulted in a design that did not reflect all of its needs. In addition, the follow-up of the work was not thorough enough to make sure that it complied with the plans and specifications. Moreover, the cost estimates, which are used to prepare budgets and obtain authorizations for expenditures, do not systematically reflect the nature and characteristics of the projects. Finally, construction timelines were not always available or not sufficiently up to date to ensure adequate follow-up of the project.

In conclusion, we noted the generalized absence of any formal accountability for the building projects audited. This good practice, which also serves to provide a history and improve future projects, was not implemented by any of the business units audited.

All in all, the multiple shortcomings concerning the building construction project management practices of the business units audited lead to the risk that both human and financial resources may not be allocated in an optimal manner, that the budgets will be overrun and that the objectives will not be achieved. Considering the scope of the City's investments in building construction and renovation projects and as a result of our findings, actions must be taken by all of the stakeholders to ensure sound management of future projects.



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, 2015

Appendices

5





**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, 2015

5.1

**Appendix 1 –
Excerpts from the
*Cities and Towns Act***



5. Appendices

5.1. Appendix 1 – Excerpts from the *Cities and Towns Act*

RSQ, chapter C-19
Updated to December 31, 2015

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. **107.8.** 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.

Audit. 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.

Documents and information. The chief auditor in the performance of his duties is authorized

- (1) to examine any document concerning the affairs and accounts relating to the objects of the audit;
- (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.

2001, c. 25, s. 15; 2001, c. 68, s. 6.

Audit. **107.9.** Any legal person receiving an annual subsidy from the municipality of at least \$100,000 is required to have its financial statements audited.

Copy. 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

- (1) the annual financial statements of the legal person;
- (2) the auditor's report on the statements;
- (3) any other report summarizing the auditor's findings and recommendations to the board of directors or the officers of the legal person.

Documents and information. That auditor shall also, on the request of the chief auditor,

- (1) place at the disposal of the chief auditor any document relating to the auditor's audit and its results;
- (2) provide all information and explanations the chief auditor considers necessary concerning the auditor's audit and its results.

Additional audit. 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.

2001, c. 25, s. 15.

Audit. **107.10.** 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.

Accounts and documents. 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.

Information. 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.

2001, c. 25, s. 15.

Audit. **107.11.** 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.

2001, c. 25, s. 15.

Duties. **107.12.** 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.

2001, c. 25, s. 15.

- Report. **107.13.** 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
- (1) control of revenue including assessment and collection;
 - (2) control of expenditure, including authorization, and compliance with appropriations;
 - (3) control of assets and liabilities including related authorizations;
 - (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. **107.16.** 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. **107.17.** 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.



**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, 2015

5.2

**Appendix 2 –
Employees of
the Bureau du
vérificateur
général as of
December 31, 2015**



5.2. Appendix 2 – Employees of the Bureau du vérificateur général as of December 31, 2015

Management personnel	Support staff
<p>Auditor general Jacques Bergeron, MBA, M. Sc., CPA Auditor, CA</p> <p>Assistant auditors general Robert Duquette, CPA, CA Thuy-Lan Ha, CPA Auditor, CA Serge Vaillancourt, FCPA, FCGA</p> <p>Senior audit manager Marie-Ève Lemieux, CPA, CA, CA•IFA, CFF</p> <p>Quality assurance and professional practices Kim Tardif, CPA Auditor, CA</p>	<p>Executive secretary Délia De Sa</p> <p>Administrative support agent Majorie Brillant</p>
Audit professionals	
<p>François Arbez, CISSP, CISM, CGEIT, CISA</p> <p>Martine Beauregard, CPA, CGA</p> <p>Pascal Bianchi, CPA Auditor, CGA</p> <p>Régent Bilodeau, CPA Auditor, CGA</p> <p>Johanne Boudreau, BAA</p> <p>Jacques Brisson, CPA, CA, CISA</p> <p>Maryse Brunetta, CPA, CGA</p> <p>Annie Cédillotte, CPA Auditor, CA</p> <p>Khadija Chaya, CPA, CMA, MBA</p> <p>Christian Élomo, CIA, CRMA, MBA</p> <p>Chérif Ferah, MBA</p>	<p>Julie Gamache, CPA Auditor, CGA</p> <p>Lucie Gauthier, CPA, CGA</p> <p>Marcelo Guédé, CISM, CRISC</p> <p>Éric Laviolette, CPA, CA</p> <p>Annie Lecompte, CPA Auditor, CA, CFE</p> <p>Isabelle Léger, CPA, CA, CISA</p> <p>Chantal L'Heureux, CPA, CGA</p> <p>Alexandre Lucena, CPA Auditor, CA</p> <p>Joanne Major, CPA, CA</p> <p>Philippe Pitre, CPA, CGA</p> <p>Pierre Rochon, lawyer, MBA</p>



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

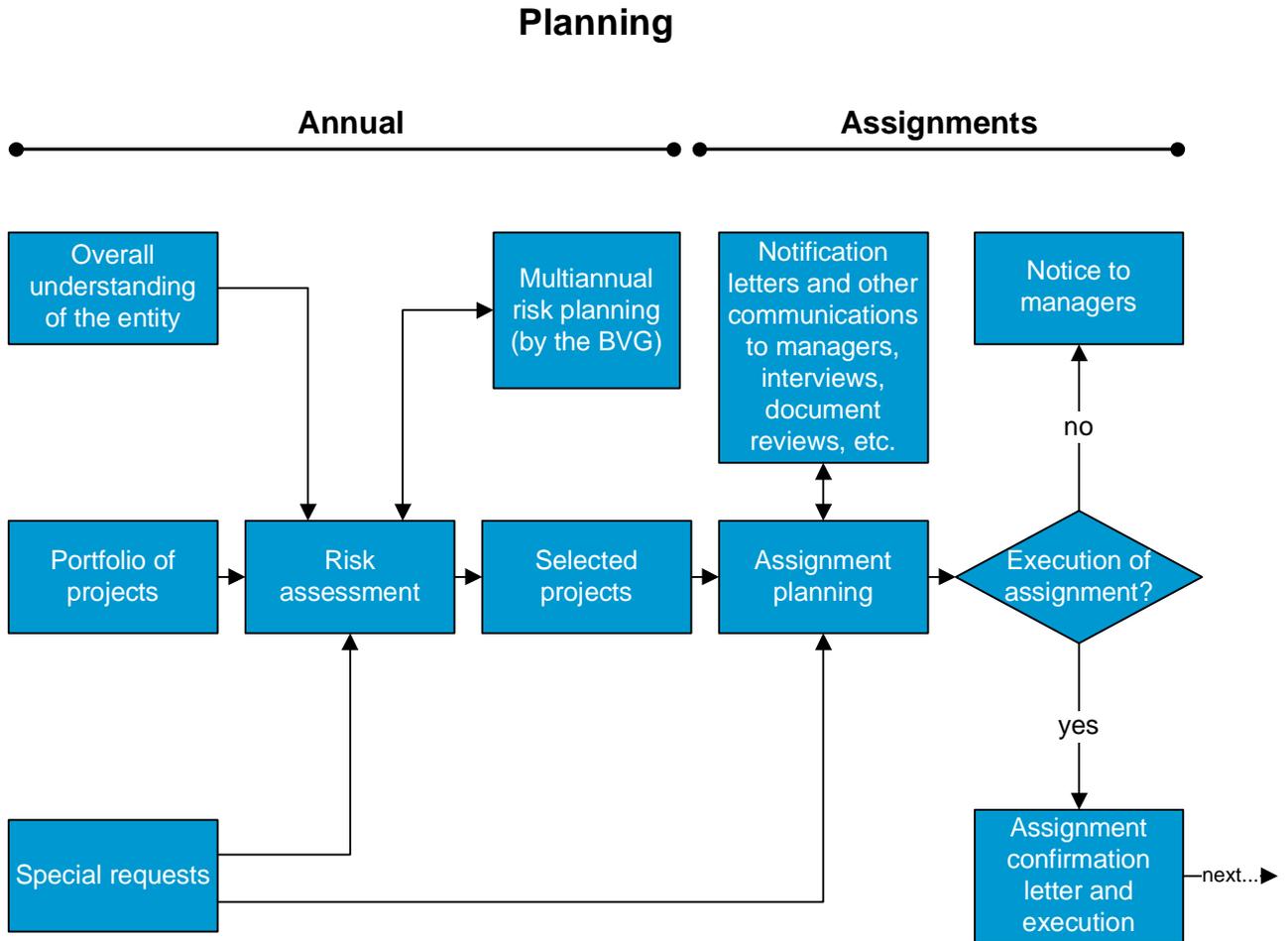
For the Year Ended December 31, 2015

5.3

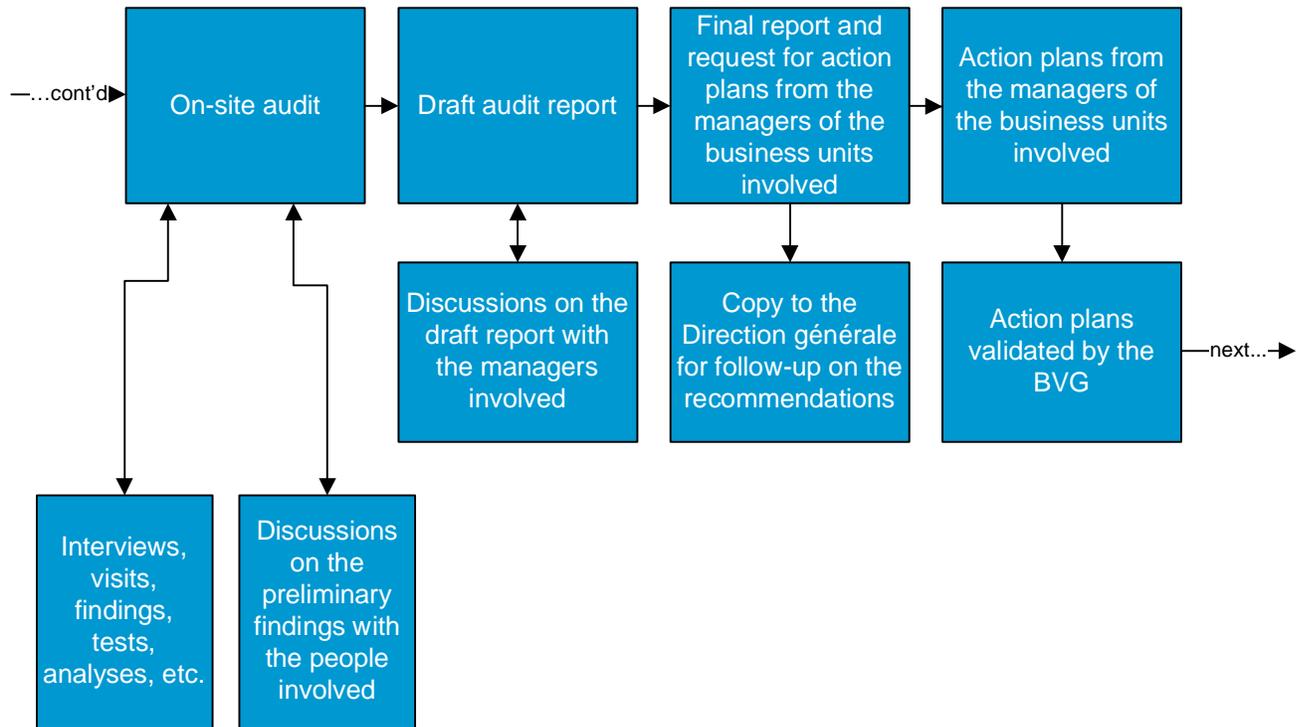
**Appendix 3 –
Information
Flow Charts –
Value-for-Money
and Information
Technology Audit**



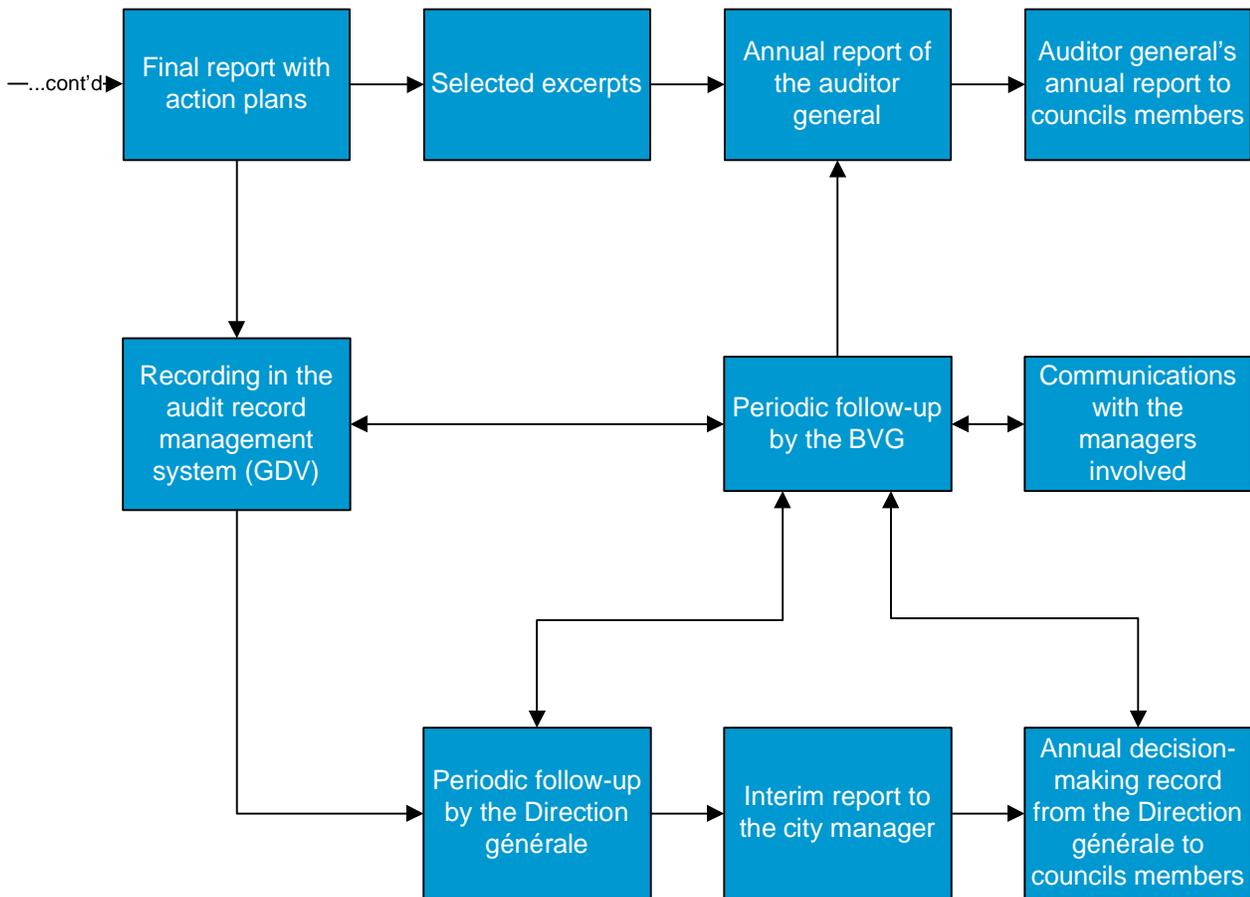
5.3. Appendix 3 – Information Flow Charts – Value-for-Money and Information Technology Audit



Auditing and reports



Annual reports and follow-ups





**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, 2015

5.4

**Appendix 4 –
Accounts Statement
of the Bureau du
vérificateur général**



**Accounts statement of the
Bureau du vérificateur général of the
Ville de Montréal
(Hereinafter referred to as “Bureau
du vérificateur général”)**

December 31, 2015



Deloitte LLP
La Tour Deloitte
1190 Avenue des
Canadiens-de-Montréal
Suite 500
Montréal QC H3B 0M7
Canada

Tel.: 514-393-7115
Fax: 514-390-4116
www.deloitte.ca

Independent Auditor's Report

To the Mayor,
the Chairman and Members of the Executive Committee,
the Members of the Council of the Ville de Montréal and
the Members of the Agglomeration Council of the Ville de Montréal

In compliance with the provisions of section 108.2.1 of the *Cities and Towns Act* (the "Act"), we have audited the accounts related to the Bureau du vérificateur général of the Ville de Montréal for the year ended December 31, 2015, and a summary of significant accounting policies and other explanatory information (the "financial information").

Management's Responsibility for the Financial Information

Management of the Bureau du vérificateur général of the Ville de Montréal ("management") is responsible for the preparation of the financial information in accordance with the recognition and measurement principles of Canadian public sector accounting standards, as described in Note 2 to the consolidated financial statements of the Ville de Montréal, and for such internal control as management determines is necessary to enable the preparation of the financial information that is free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on the financial information based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial information is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial information. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial information, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the financial information in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates, if any, made by management, as well as evaluating the overall presentation of the financial information.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial information related to the Bureau du vérificateur général of the Ville de Montréal for the year ended December 31, 2015, is prepared in all material respects, in accordance with the recognition and measurement principles of Canadian public sector accounting standards, as described in Note 2 to the consolidated financial statements of the Ville de Montréal.

Deloitte LLP¹

April 26, 2016

¹ CPA auditor, CA, public accountancy permit No. A116207

Accounts statement of the Bureau du vérificateur général

Year ended December 31, 2015

(In thousands of dollars)

	2015⁽¹⁾ Budget	2015 Actual	2014 Actual
	\$	\$	\$
Compensation of personnel	4,039	3,942	3,919
Professional, technical and administrative services	1,481	1,155	1,333
Other operating expenses	503	505	423
Total	6,023	5,602	5,675

⁽¹⁾ Approved budget, as modified, presented in the accounting system of the Ville de Montréal for the Bureau du vérificateur général and approved by the executive committee of the Ville de Montréal.

This accounts statement of the Bureau du vérificateur général was prepared in accordance with the recognition and measurement principles of Canadian public sector accounting standards, according to the same accounting policies described in Note 2 to the consolidated financial statements of the Ville de Montréal for the year ended December 31, 2015.



bvgmtl.ca