AUDITOR GENERAL’S REPORT
ACTION REQUIRED

Financial Planning Analysis and Reporting System (FPARS) – A Large Scale Business Transformation/Information Technology Project

<table>
<thead>
<tr>
<th>Date:</th>
<th>May 2, 2013</th>
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<tr>
<td>To:</td>
<td>Audit Committee</td>
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<tr>
<td>From:</td>
<td>Auditor General</td>
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<td>Wards:</td>
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<td>Reference Number:</td>
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2. City Council request the City Manager to review the current governance structure pertaining to the Financial Planning, Analysis and Reporting System. Specific accountability and responsibilities be clearly defined and communicated. Reporting relationships be clearly structured and clarified including the roles of the City Manager, Deputy City Manager and Chief Financial Officer and the Chief Information Officer.

3. City Council request the Deputy City Manager and Chief Financial Officer to prepare a detailed and comprehensive analysis of all Financial Planning, Analysis and Reporting System related costs to date as well as those costs projected to the completion of the project. This information should also include all anticipated ongoing maintenance costs. Further, the Deputy City Manager and Chief Financial Officer quantify and document all anticipated financial and operational benefits of the Financial Planning, Analysis and Reporting System project. Such an analysis be completed by July 31, 2013.

4. City Council request the Deputy City Manager and Chief Financial Officer to report in detail to Council on the estimated costs to implement the capital budget component of the Financial Planning, Analysis and Reporting System.

5. City Council request the Deputy City Manager and Chief Financial Officer, the Director, Financial Planning and the Chief Information Officer review and approve detailed cost estimates for large scale information technology projects for accuracy and reasonableness prior to submission to the Budget Committee and Council. Such a review include a financial analysis to identify, quantify and document anticipated financial and operational benefits for implementation. Further, the review should be clearly documented and approved.

6. City Council request the Deputy City Manager and Chief Financial Officer and the Chief Information Officer to ensure that existing or prospective “off-the-shelf” software applications are thoroughly researched and investigated prior to developing a custom solution for future large scale information technology projects.

7. City Council request the Deputy City Manager and Chief Financial Officer, the Director, Financial Planning and the Chief Information Officer to ensure that upon project completion, a final “close-out” report is submitted to City Council. Such reports should include comparisons of budget to actual timelines, costs, actual benefits achieved and where applicable, a description of anticipated benefits not realized.

8. City Council request the Chief Information Officer to establish minimum documentation standards required in support of information technology projects. Standards should include one documentation repository in projects where various project leads exist. In addition, a formal process for collecting, addressing and reporting project risks and a formalized business change request process should be in place.
9. City Council request the City Manager direct all City Divisions to ensure documentation is maintained for issues and recommendations made by external consultants. Supporting documentation should include action taken on issues identified and related recommendations.

**Financial Impact**

The recommendations in this report have no financial impact. While the issues identified in this report arose specifically from our review of the FPARS implementation project, the lessons learned from this review will have relevance to future planning and undertaking of information technology projects by other City Divisions, as well as City Agencies and Corporations.

**DECISION HISTORY**

The Auditor General’s Audit Work Plan included a review of a large scale information technology project known as the Financial Planning, Analysis and Reporting System (FPARS) implementation project. The project was selected based on the extent of expenditures and associated risks. In addition, a number of concerns were communicated to the Auditor General’s Fraud and Waste Hotline. These concerns were considered during the course of this review.

The objectives of the audit were to assess the adequacy of measures, controls and processes in place to ensure successful implementation of the FPARS project.

**COMMENTS**

FPARS is a multi-year performance-based planning and budgeting framework and process which links City service priorities to actual service delivery. When implemented FPARS is expected to track and report service level performance measures in a manner which facilitates user accessibility to short and long term financial planning and analysis.

FPARS implementation costs are estimated to be in the range of $70 million.

The audit report entitled “Financial Planning Analysis and Reporting System (FPARS) – A Large Scale Business Transformation/Information Technology Project” is attached as Appendix 1. Management’s response to the audit recommendations is attached as Appendix 2.
CONTACT

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SIGNATURE

_______________________________
Jeff Griffiths, Auditor General

11-FPD-01

ATTACHMENTS

Appendix 1: Financial Planning Analysis and Reporting System (FPARS) –
A Large Scale Business Transformation/Information Technology Project

Appendix 2: Management’s Response to the Auditor General’s Review of
Financial Planning Analysis and Reporting System (FPARS) –
A Large Scale Business Transformation/Information Technology Project
AUDITOR GENERAL’S REPORT

Financial Planning Analysis and Reporting System (FPARS) – A Large Scale Business Transformation/Information Technology Project

February 28, 2013

Jeffrey Griffiths, C.A., C.F.E.
Auditor General
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EXECUTIVE SUMMARY

<table>
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<th>Why we did this review</th>
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<tr>
<th>Comments in previous City Auditor General’s report continues to have relevance</th>
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| The following comments are from the City of Toronto Auditor General’s report to the Toronto Police Services issued in 2005 on an information technology project called eCOPS (Enterprise Case and Occurrence Processing System):

“Developing and implementing a major information technology project carries considerable financial risk. Such projects can be complex, costly and time consuming involving the efforts of many staff and, in the case of eCOPS, the assistance of a significant number of external consultants. Many information technology projects cost more and take longer to complete than originally planned, and others are abandoned altogether when concerns mount regarding cost overruns or system malfunctions. Surveys (conducted by the California State Auditor) of large companies and federal agencies revealed that only one quarter of all large scale systems development projects are completed on time and within budget, and almost 30 per cent are abandoned because they cannot meet requirements, all of which result in lost taxpayers’ dollars.” |
The issues very clearly articulated eight years ago in the eCOPS report have had significant relevance throughout this review. In summary the development and implementation of FPARS continues to:

- Be Complex
- Costly
- Time consuming
- Involve the efforts of many staff and consultants
- Take significantly longer to complete than originally planned

Prior to 2009, FPARS was being developed internally by adapting already existing SAP functionality. In 2009, this development was discontinued when an SAP off-the-shelf product became available.

The following comments were also contained in the eCops report:

“We have discussed the issue of internally developed information technology projects with the Executive Director of Information Technology of the City. For a number of years the City has an informal policy of, wherever possible, purchasing commercial off-the-shelf software. The development of major projects in-house is an avenue which the City has avoided, mainly because of the significant financial and potential longer-term risks inherent in such an endeavour.”

In the context of the difficulties prevalent in managing information technology projects, the former Auditor General of Canada had previously made reference to this issue in connection with a review conducted on a number of large information technology projects at the Federal Government.

The former Auditor General of Canada indicated that:

“compared with other disciplines, the management of IT projects is relatively new and organizations are still finding their way with it. Therefore, any organization that invests in IT support must be cautious. Large IT projects are inherently complex, expensive and risky and they usually involve long planning and development times.”
The comments of the former Auditor General of Canada wherein she states that “any organization that invests in IT support must be cautious” is especially relevant at the City particularly in the context of the significant investment in large scale IT projects.

**Previous Auditor General reports**

The City’s Auditor General previously reported on the management of information technology related projects across the City including:

- Toronto Maintenance Management System application Review (March 2004)
- CLASS Recreation Registration and Permitting System Information Technology Review (October 2004)
- Management of City Information Technology Assets (February 2006)
- Management of Information Technology Projects – Opportunities for Improvement, Toronto Transit Commission (October 2007)
- Disaster Recovery Planning for City Computer Facilities April 2008
- Review of the City SAP Competency Centre (June 2010)
- Review of the Integrated Records and Information System (IRIS) Toronto Police Service (August 2011)

**Common issues identified in previous audit reports**

In the audits identified above, the Auditor General addressed a number of fundamental deficiencies in project management relating to information technology. Recommendations were made to remedy these deficiencies. In general terms the deficiencies identified were:

- The significant financial and reputational risks associated with development of in-house information technology systems
- Incomplete and inadequate business cases
- Lack of comparative evaluations between internally developed and “off-the-shelf” technology solutions
- Inadequate project management
Cost overruns and delays
Inadequate management of consultants
Inadequate monitoring of consultant deliverables
Failure to address previous audit and other related recommendations
Incomplete reporting to Council, the Board or the Commission

This current review has identified many of the same issues outlined above which would suggest that various audit recommendations made by the Auditor General have not received an appropriate level of attention.

What is FPARS?

FPARS is a complex large scale information technology project and represents a significant change in the way the City collects and reports on financial and performance information. The City initially launched the FPARS project in early 2005. The estimated cost of FPARS as at the date of this report is in the range of $70 million.

In summary, FPARS will provide a budgeting system to link strategic directions to service objectives, support a multi-year, performance-based service budget for planning, analyzing, approving and evaluating financial data; tracking, evaluation and reporting service performance (measures); and assessing efficiency, effectiveness and outcomes with a focus on service level indicators. In doing so, FPARS will re-engineer financial planning, accounting, payroll and human resource processes. It will also include analytical tools that permit sensitivity and scenario analysis, and will provide the flexibility to incorporate and track long-term service planning initiatives.

The key issues identified in our current report relate to the following:

Defining FPARS Project Costs, Scope and Requirements

- Lack of a complete business case
- The costs projected for the FPARS project are incomplete and do not include costs relating to the capital budget component
- There is a need to report to Council on the complete costs of the FPARS project
Deficiencies in FPARS Project Management

- Resources not appropriately dedicated to FPARS
- Consultant reports identified lack of project ownership
- Lack of a co-operative working relationship between those responsible for FPARS
- Various project leads with no clear lines of authority
- Project monitoring and reporting requires improvement
- Project documentation practices required improvement

Monitoring Consultant Contracts and Deliverables

- No documented follow-up on project risks and recommendations provided by consultants and internal staff
- Consultant project management documentation practices require strengthening
- Assessment of deliverables not conducted
- Significant project delays

Governance and Oversight

- Council has not been provided with an analysis of the total costs nor has there been any clear articulation to Council on the nature and benefits of FPARS beyond the annual budget process.

Conclusion

We appreciate and recognize the complexity of large scale business transformation/information technology projects such as FPARS. As indicated by the former Auditor General of Canada, “large IT projects are inherently complex, expensive and risky and they usually involve long planning and development times”.

Previous Audit reports have clearly identified the need to better manage information technology projects. In our view, a significant number of these reports relating to the management of information technology projects have for the most part not received an appropriate level of attention. Even though certain of these reports pertain to City Agencies, including the Toronto Police Service and the Toronto Transit Commission, the recommendations have relevance throughout the City and consequently should have been considered throughout the development of FPARS.
**BACKGROUND**

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<tr>
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</tr>
<tr>
<td>Management Ownership of the Project Has Been Unclear</td>
<td>The roles and responsibilities for the FPARS project have been unclear. We have been advised that since its inception, FPARS was to be led by the Financial Planning Division and supported by the Information and Technology Division. However, more recently, the project is now jointly sponsored by the Financial Planning Division and the Information and Technology Division.</td>
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<tr>
<td>Audit Has Been Difficult and Time Consuming</td>
<td>This audit for the most part has been difficult and time consuming for a number of reasons:</td>
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<td>Relationships difficult</td>
<td>• The FPARS project is a large business transformation project. Due to the scope and complexity of the FPARS project, and compounded by the lack of proper project governance, the working relationship between the Financial Planning Division and the Information and Technology Division has been uncooperative, challenging and unprofessional. As the business lead, the Financial Planning Division’s role was to determine the business requirements for the project. The role of the Information and Technology Division was to support the technology implementation.</td>
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The Financial Planning Division and the Information and Technology Division have had differing expectations as to their respective roles, and different views on project management, and business analysis processes and methodologies. These differences were key factors in the poor working relationship between the two Divisions.

In May 2009, senior management of the Financial Planning Division and the Information and Technology Division implemented a new project governance structure for the FPARS project. This change established co-sponsorship at the executive level.

**Lack of sharing of information between divisions**

- The sharing of information between the Information and Technology and the Financial Planning Divisions has been lacking. For example, one report prepared by external consultants for the Information and Technology Division at a cost of approximately $320,000 was “never formally provided to Financial Planning Division or FPARS project staff.” This report related to an SAP assessment of the status of the FPARS project. We have been advised that “FPARS staff did receive a copy informally by the SAP consultants. Had we not, FPARS would never have known about it.” The decision not to provide FPARS staff with a report which cost $320,000 to produce is inconceivable and obviously inappropriate. Likewise, an internal audit report prepared by the City Manager’s Office was provided to the Financial Planning Division staff but not made available to the Information and Technology Division even though it provided a number of recommendations which likely had relevance to the future hiring of consultants by the Information and Technology Division.

**Working relationships were not addressed**

- The unproductive working relationship between the Information and Technology Division and the Financial Planning Division was allowed to continue even though it contributed to project delays. This matter was not addressed to the extent it should have been.

**Delay in providing information**

- Information requested by my Office has been delayed and not provided on a timely basis. In some cases, these delays have been in excess of three months.
Various reports viewed as inaccurate

- Reports on various aspects of the FPARS project prepared by both external consultants and internal staff have been viewed by the Financial Planning Division as inaccurate, incomplete and without basis, even though there are no written responses refuting the findings. In the case of an internal audit report, management responses to the report were provided three years subsequent to its preparation and were only prepared at the request of the Auditor General.

Internal Audit Reports not provided to Auditor General

- The existence of the Internal Audit Report on various aspects of the FPARS project was not disclosed to the Auditor General’s Office apparently because it was in draft even though it clearly was a final document. We were made aware of the report by the Information and Technology Division. This matter has been discussed at length with the City Manager.

Costs have been inaccurate and understated

- Total costs for FPARS initially provided to us were inaccurate and understated and in certain cases excluded costs incurred by the Information and Technology Division.

Report is an independent evaluation

- This report is the result of our independent assessment of the FPARS project. The recommendations contained in this report have been formed on the basis of our analysis of reports, interviews, research and discussions. Our comments relate to the project since its inception to February 28, 2013.
AUDIT RESULTS

**High level review**
This review has been a high level evaluation of the project and has not included a review of the technical aspects of FPARS. For the most part, the review has focussed on how the FPARS project was planned, monitored and controlled.

**Previous Auditor General Reports on Information Technology Projects**
The Auditor General’s Office has previously reported on the management of information technology related projects across the City including:

- Toronto Maintenance Management System application Review (March 2004)
- CLASS Recreation Registration and Permitting System Information Technology Review (October 2004)
- Management of City Information Technology Assets (February 2006)
- Management of Information Technology Projects – Opportunities for Improvement, Toronto Transit Commission (October 2007)
- Disaster Recovery Planning for City Computer Facilities April 2008
- Review of the City SAP Competency Centre (June 2010)
- Review of the Integrated Records and Information System (IRIS) Toronto Police Service (August 2011)
Common issues identified in previous audit reports

In the audits identified above, the Auditor General addressed a number of fundamental deficiencies in project management relating to information technology. In general terms, the issues identified in these reports were:

- The significant financial and reputational risks associated with development of in-house information technology systems
- Incomplete and inadequate business cases
- Lack of comparative evaluations between custom and “off-the-shelf” technology solutions
- Inadequate and in some cases a lack of project management
- Cost overruns and delays
- Inadequate management of consultants
- Inadequate monitoring of consultant deliverables
- Failure to address previous audit and other related recommendations
- Incomplete and inaccurate reporting to Council, the Board or the Commission

Concerns continue

One of the basic reasons for any audit process is to identify opportunities for improvements within an organization and to provide recommendations in order to ensure that agreed upon improvements are implemented. In the case of the FPARS project, many of the concerns identified in previous reports continued to exist in spite of the significant number of previous recommendations made to address the deficiencies. The value of the audit process is significantly compromised if management choose to disregard fundamental and basic audit recommendations and good business practices.

The Changing Budget for FPARS

Budget for FPARS in 2009 was $15 million

FPARS, when first approved by City Council in 2006, was budgeted at $7.9 million. The increase by a further $7.2 million was included in the 2009 capital budget submission. The project at that time was being developed internally using existing SAP applications.
A report dated September 25, 2008 to the Budget Committee indicated that:

“The scope of the project has expanded since its approval to include a rationalization and restructuring of all City cost centres ($1.94 million), and since human resource data is tied to cost centres, a review and potential redesign of how complement planning and management is conducted in the City ($3.170 million). Also there has been about a one-year delay in implementing the new system due to its size and complexity and the need to acquire specialized technical resources to meet expanded requirements ($2.1 million). The FPARS project is scheduled to be implemented by June 2010, in time for the 2011 budget process to deliver a multi-year operating budget for the next term of Council”.

Consequently, the budget in 2009 for the FPARS project was in the range of $15 million.

As indicated previously, prior to 2009, FPARS was being developed internally by adapting already existing SAP functionality. In 2009, this development was discontinued when an SAP off-the-shelf product became available. This product became known as the PBF solution.

With the decision made in the fall of 2009 to discontinue with the internally developed solution and to proceed with the PBF solution, a full costing of all the project requirements was developed reflecting requirements from the Financial Planning Division, the Corporate partners and the Information and Technology Division.

The budget developed at that time for the PBF solution was in the range of $55 million. In general, the budget increase was due to increased costs of $22.5 million to fund increased management change capacity, $12 million to fund the use of new SAP technology and $5.5 million for project office space and operations. Details of both the original budget and the PBF solution are provided in Exhibit 1.
Revised budget in the range of $70 million

In addition to the above, we have since identified further costs relating to the acquisition of SAP licences for the FPARS project and information technology costs “to support FPARS/PBF implementation through the SAP landscape upgrade project”. The revised budget is now in the range of $70 million. Increases in the budget have been approved through the annual capital budget process.

Costs for capital budgeting system not available

The total costs of $70 million pertains to the business transformation and systems implementation of service planning and multi-year service-based operating budgets as well as the re-engineering of financial, payroll, and human resources. A separate project for capital planning, budgeting and asset management is still required and is not included in these costs.

The approval of annual costs through the budget process is difficult to follow. In this context, there has been no separate reporting to Council on the overall budget of the project along with any detailed disclosure of the project benefits.

Budget/Cost details as of the date of this report are as follows:

<table>
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<th>Description</th>
<th>Cost (Millions)</th>
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<tbody>
<tr>
<td>Actual Costs prior to 2009 (pre PBF solution)</td>
<td>6.0</td>
</tr>
<tr>
<td>Information Technology Division Costs prior to 2009 (pre PBF solution)</td>
<td>2.3</td>
</tr>
<tr>
<td>FPARS Project Budget for Business Transformation and PBF Implementation</td>
<td>55.0</td>
</tr>
<tr>
<td>Information Technology Division Costs to support SAP upgrade</td>
<td>3.9</td>
</tr>
<tr>
<td>SAP Licence Costs to support PBF</td>
<td>2.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$69.9</strong></td>
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We have received written confirmation from the Project Sponsors that these costs are accurate and complete.

Capital Component costs still required

We have been advised that the capital component of FPARS will be $5 million although management have not been able to provide the basis for this amount. We understand that the capital component of FPARS will not be implemented until 2016.
Lack of a Business Case

The initial project charter document for the FPARS project did not include total projected costs or a business case with quantified benefits. Although the charter was presented to the project sponsors it was not officially signed off and remained as an outstanding item in the project meeting minutes.

Previous Auditor General recommendations addressed needs for a business case

The Auditor General’s 2005 report entitled “Review of the Enterprise Case and Occurrence Processing System (eCOPS) Project at the Toronto Police Service” included the following recommendations:

“1.(d) develop an investment decision making process for information technology solutions or projects that requires the Steering Committee to consider short and long term impacts, cross unit impacts, business justification, benefits to be realized, strategic contribution, and compliance with the Service’s technology architecture and direction.”.

“2. To establish accountability for IT projects and enhancements, mechanisms be developed to enable the measurement of benefits realized and deliverables to be achieved, and the business user be required to report to the Steering committee on the actual benefits achieved and explain, when applicable, shortcomings in realizing previously defined benefits.”

Value of a comprehensive business case

The preparation of a detailed business case when evaluating the purchase and development of a complex, large scale computer system is a basic and necessary requirement. A business case provides important information to management and documents the analysis done to support or not support a project.

A well prepared business case should answer three primary questions:

- Why are we doing this?
- What will it cost?
- What business value do we expect to achieve?
| **No detailed business case prepared** | A detailed business case was not prepared for the FPARS Project. In reviewing the documentation for the development and implementation of the FPARS project the decision to approve the project was made without the quantification of any financial benefits although various qualitative efficiencies and benefits were identified. |
| **Financial analysis is essential in justifying business decisions** | Although other factors are considered in the decision-making process, quantifying the anticipated financial benefits of a complex, large scale computer system is an essential business case component. Financial analysis is a key requirement in justifying any business decision. |
| **External consultants also identified lack of a business case as an issue** | One of the issues clearly identified in a report prepared by an external consultant on the FPARS project in 2009 indicated that “During the Reset, it was observed that a quantitative analysis of the Business case and Return on Investment, based on expected cost savings, operational efficiencies and service improvements etc was not available.” |
| **Police eCOPS report identified issues relating to custom made information technology solutions** | The initial direction for FPARS was to develop internally an SAP configured solution using SAP functionality. This solution became known as the “Custom Solution.” As previously mentioned, in the year prior to the 2006 launch of FPARS the Auditor General issued a comprehensive report to the Toronto Police Service relating to a review of the Enterprise Case and Occurrence Processing (eCOPS) Project. One of the major issues identified in this report related to the risks and complexity inherent in developing a custom made information technology solution as opposed to the procurement of an “off-the-shelf” system. |
Contrary to this advice, the FPARS project team in 2006 initiated the development of a custom made solution mainly because there was no “off-the-shelf” product available. The custom made solution involved hiring independent consultants specializing in specific SAP products and tools. The consultants were tasked with designing and building a budget planning system using functionality in pre-existing SAP products.

**Custom Solution was deemed appropriate**

A custom solution was deemed appropriate by management in spite of the fact that no business case was provided and cost and resource requirements were unknown at the time.

**Internally Developed SAP Configured Solution Discontinued**

In mid-2008, SAP advised the City that they had developed a new public sector budgeting application. The FPARS project team discontinued its work in order to evaluate the product and concluded that the application had not been sufficiently developed for the City to be confident that the application would meet its business requirements. The City indicated to SAP that it would re-evaluate the product subsequent to its release.

In May 2009 FPARS custom solution was re-evaluated

With the release of the Public Sector Budget Formulation (PBF) application, the City determined it would evaluate the product again. In the fall of 2009, the City undertook its second assessment of PBF.

The assessment included an evaluation of two alternatives.

- The continuation of the custom solution under development since 2006
- The implementation of the PBF solution developed by SAP

“Packaged Solution” considered in 2007

Two years previously, in 2007, SAP announced its development of a Public Budget Formulation (PBF) integrated application, built by SAP using fully supported SAP technology projects. PBF is known as a “packaged application” and is specifically designed for Public Sector Budgeting. PBF was made available for general release in early 2009. The City of San Diego currently operates a PBF packaged solution.
In October 2009, a recommendation was made by the FPARS team to adopt the PBF solution as the future direction for the project. Up to this point in time an amount of $8.3 million was expended on the custom solution. We have been advised by the Director of Financial Planning that these amounts were not “sunk costs” and have in fact been of use throughout the development of the PBF solution. However, we have since determined that approximately $1.1 million are in fact sunk costs, and were no benefit during the development of PBF.

In our view, the initial decision to customize a product was premature, particularly as the risks in doing so were very clearly outlined in the Auditor General’s report on eCops. We are not aware as to whether or not discussions were held with SAP to determine what products were being developed and whether or not an off-the-shelf product was in the development stage and was imminent.

As the FPARS project evolved from its custom development stage four separate reports were prepared during the period 2006 to 2009. These reports were prepared in response to issues identified during the custom development process.

Two of the reports were authored by external consultants and two were prepared by City staff. The four reports were as follows:

- 2006 City Information and Technology Division Report
- 2008 SAP Initial Assessment of FPARS
- 2009 City Manager’s Internal Audit Division
- 2009 Project Reset Closure Report

The 2006 report and the 2009 Internal Audit report were prepared by internal staff. The other two reports were prepared by external consultants.
The four reports were provided to and discussed with senior management. We conducted interviews with individuals involved in these reviews and based on our review of the reports and the results of these interviews, the issues identified in each of the reports include common themes which we have also identified in our audit work.

Two of the reports, the 2006 City Information and Technology Division Report and the 2009 Project Reset Closure Report, were never issued in final form and remain as draft reports. Apparently because these are draft reports, we have been advised that these reports “have no formal status” even though they contain valid and appropriate observations and recommendations. Quite clearly, in our view, the fact that reports are in draft is irrelevant if the contents of the reports contain useful information and valid recommendations.

In addition, the internal audit report from the City Manager’s Office was also viewed as a draft report because it apparently did not include a management response. The Director of Internal Audit has confirmed that in spite of the views of senior management this report was issued in final form.

The specific reasons why certain reports were never issued in final form or were viewed as being in draft was presumably because certain staff disagreed with the contents of each report.

A brief summary of each of the reports is as follows:

1. **2006 City Information and Technology Division Review**

   In 2006 Information and Technology Division staff issued a draft report entitled “Financial Planning - Program Maps and New Budget System”. Although this report was not issued in final form the issues and recommendations contained in the report were discussed with FPARS project team members and City senior management representatives. Among the issues identified in the draft report were the following:

   - Key divisional resources have not participated in the program mapping exercise
   - Need to define an operational and capital budget to complete FPARS implementation and define funding sources.
This report was authored by four managers in the Information and Technology Division who were all in agreement with its contents.

“We prepared without authority”

We have been advised by the Director of Financial Planning that this report was “prepared without any authority” even though certain of its contents were relevant to the management of the FPARS project. Information and Technology staff had identified concerns that they wished to convey to senior management in writing and were well within their rights to do so. In fact, they had an obligation to convey these concerns and to suggest that such reports should only be prepared when authorized is not appropriate.

2. 2008 SAP Initial Assessment of FPARS

In 2008 the City paid SAP approximately $320,000 to conduct initial reviews of key projects in order to provide the City with a detailed assessment report outlining:

- SAP methodology best practices
- Project status in terms of SAP best practice
- Assessment of integration management between projects and recommendations

The first of the assessments addressed the FPARS project.

SAP report contained 14 recommendations

The SAP report provided 14 recommendations and concluded that the FPARS project in general terms:

- Lacked effective governance. The report indicates that “Program governance and program management has not been thorough enough for the last 12 months”
- Lacked an integrated implementation plan
- Lacked documentation and standard procedures
- Did not have adequate change management resources
- Lacked a clear project scope
- Lacked SAP implementation experience in project management
This report was requested by the Information and Technology Division. The report further stated that the “FPARS project is led by the business and has not been treated as an IT project in the past. Going forward the misalignment and lack of communication between Business and Information and Technology Division must be addressed in order to allow this project to become successful.” It further adds that the “roles between FPARS team and the SAP competency centre are unclear and controversial.”

In spite of these comments we have been advised that the final report was never shared by Information and Technology Division staff with the Financial Planning Division. Further, we are not aware of any formal responses to the recommendations contained in this report even though the cost of this report was $320,000.

One of the significant issues identified in the SAP Initial Assessment Report relates to the risks associated in developing a custom made product. The SAP report indicates that “in the past many government organizations have looked to custom develop applications, not a core competency of government, to meet their unique requirements. This leads to many risks and high total cost of ownership.”

In April 2009 the City Manager’s Internal Audit Division conducted a review of the FPARS project consultants’ hours and billing rates. The scope of the review was extended by the Director of Internal Audit when issues of concern were identified.

The Internal Audit report identified a number of issues related to the following areas:

- Sole Sourcing of Consulting Contracts
- Hiring Processes for Consultants
- Monitoring of hours billed by consultants
- Lack of project management expertise
- Contracts with consultants consistently signed after the work had commenced
The Internal Audit Report has been particularly contentious with significant differences of opinion between the Director of Internal Audit and the Director of Financial Planning. Again the report “was considered to be draft by the City Manager, Chief Financial Officer and Director of Financial Planning”. If this in fact was the case no efforts were made to finalize the report until the Auditor General expressed concerns with its content approximately three years after its preparation. In any event, we have been advised that the Director of Internal Audit stated when issuing the report that it was a final document.

4. 2009 Project Reset Closure Report

In view of the importance of FPARS as a major business transformation project as well as the challenges associated with the project’s lack of progress, senior City management in 2009 contracted with an external consultant to assist in conducting a Project “Reset” and to recommend a strategy to move the project forward.

The cost for this review was $52,000 and the report identified 16 major findings and conclusions and provided 15 recommendations.

The consultant’s key findings were as follows:

- Lack of “buy-in” from Corporate Partners
- Project team members and Corporate Partners do not have a common understanding of key project fundamentals such as divisional business needs and current and proposed budget processes
- Lack of communication between the team members
- Lack of an approved integrated work plan
- Significant issues related to assigning dedicated key Corporate Partner staff resources to the FPARS project resulting in a lack of clarity on project scope
- Project management methodology only partially followed
- Project documentation from the initiation phase was not completed or authorized by respective business process owners
- Majority of critical project dates published are not based on a detailed project plan highlighting divisional involvement and input from key team members.
The project management consultant concluded that “this project is not currently structured to be able to deliver a complete solution by June 2010” which was the original timetable.

**Report issued in draft and remains in draft**

This report was issued in draft format and dated November 13, 2009. We have been advised that the “consultant drafted a report with recommendations on how to proceed, presented it and then left the following day as his contract was due.” It is incomprehensible that this was allowed to happen.

We have been further advised that “the report’s body required amendments to provide a more balanced and accurate depiction of the issues raised and incorrect information to be adjusted.”

**No written management response**

There has been no written management response to the recommendations contained in this report.

**Revised Strategy – Moving from a Custom Solution to an Off-the-Shelf Solution**

SAP Canada was engaged to provide an in-depth assessment of the PBF solution to support the FPARS project. The cost for this assessment was approximately $445,000 and included three deliverables:

- A fit-gap analysis
- Reassessment of the City’s architecture, data integrity and needs
- A proposed implementation plan and IT solution to support the FPARS project

SAP reported that “it is the opinion of the team completing this assessment of SAP’s Public Budget Formulation suitability for the FPARS program, that PBF is a very good fit and investment for the City of Toronto.” PBF will provide the lowest cost of ownership, the best integration to the City’s existing SAP landscape and unparalleled technology support and enhancements.”
Custom solution discontinued at the end of 2009

As previously stated, in 2009 the custom solution was discontinued and a packaged “off-the-shelf” SAP solution known as PBF was adopted by City Council as the preferred solution. The PBF solution was estimated to cost $61 million with approximately $30 million of the $61 million budgeted for external resources. This decision was made five years subsequent to the original decision to proceed with a new budget system. The custom solution was effectively discontinued in late 2009.

Request for proposal issued in 2011

The City in 2011 issued a request for proposal “for the provision of professional services to deliver the City of Toronto’s new multi-year service based operating budget and reporting requirements by changing business practice and implementing the SAP PBF Solution Guide (SAP Public Budget Formulation Implementation).” The contract for these services was signed in March 2012. The cost for this particular part of the FPARS solution was $15 million.

Unsuccessful procurement had financial implications

An unsuccessful and delayed procurement process resulted in financial consequences particularly in relation to the acquisition of leased office space for dedicated FPARS staff.

In May 2010, Council approved a three year $3.3 million lease for space for FPARS project staff. The estimated occupancy for the FPARS project team was to begin September 1, 2010. The leased space was intended to house 100 staff members and over 50 external consultants dedicated to the FPARS project. Due to ongoing delays, as of February 2013 the space was housing 63 staff and 52 external consultants.

In June 2012 the FPARS project had its formal “kick-off” to announce its plans for the implementation of the PBF system. The development of FPARS is ongoing.

Numerous delays due to revisions in scope, resource allocations expected completion dates

The FPARS project remains a work in progress. The original scope, expected resources required and expected completion dates have been revised numerous times. Capital budget requests were resubmitted with a redefined scope and deliverables in 2007, 2008 and 2009. We reviewed several minutes and status reports from 2006 through 2009 which identified delays in implementation progress due to a lack of dedicated project resources.

Conclusion
In its 2009 Operating Budget Submission, Guidelines and Instructions, it was stated that “the new operating budget system is projected to be operational for the City’s 2011 Operating Budget process.”

In the equivalent document for 2011, it was stated that “by the 2013 budget cycle the City will transition to a multi-year performance based service operating budget that will achieve Mayor and Council priorities and outcomes; increase public understanding of City services; and measure results with score cards.”

**Challenges in defining project scope**

Project deliverables were delayed as project scope was revised frequently. According to management, delays and the changing shifts in scope were due to the following circumstances:

- City-wide adoption of a new performance based budget framework
- Resolving differences in opinion related to implementing a customized system versus an off-the-shelf version
- Lack of technology to support development
- Lack of dedicated internal resources
- Delays in resolving numerous FPARS related project issues
- Two separate assessments of the PBF application, first in 2008 and again in 2009

Consultant reports from 2006 through 2009 identified a “lack of project ownership” resulting in poor issue resolution causing various project delays.
Lessons learned from previous audit work indicate that successful implementation of a large scale financial system can only be ensured by including:

- Full support of Information Technology staff and resources
- Full support of senior management
- Full commitment of appropriate City divisional staff
- Aggressive planning, change management and communication resources
- Timely follow-up evaluation of all scheduled project deliverables
- Risk Management plan to ensure pro-active risk mitigation
- Appropriate project governance and co-sponsorship at the executive level

This report contains nine recommendations. Changes and improvements will only take place if recommendations are appropriately addressed.

RECOMMENDATIONS

Certain of the recommendations included in this report have been made in previous Auditor General’s reports. In spite of specific direction by the Audit Committee that these recommendations be addressed, it is clear from our review that this has not occurred.

Recommendations:

1. City Council request the City Manager to ensure that prior to the development of large scale information technology projects, a detailed review of all Auditor General’s recommendations be conducted. Specific check lists be developed and signed off by senior staff attesting to the fact that all Auditor General’s recommendations have been considered.
2. City Council request the City Manager to review the current governance structure pertaining to the Financial Planning, Analysis and Reporting System. Specific accountability and responsibilities be clearly defined and communicated. Reporting relationships be clearly structured and clarified including the roles of the City Manager, Deputy City Manager and Chief Financial Officer and the Chief Information Officer.

3. City Council request the Deputy City Manager and Chief Financial Officer to prepare a detailed and comprehensive analysis of all Financial Planning, Analysis and Reporting System related costs to date as well as those costs projected to the completion of the project. This information should also include all anticipated ongoing maintenance costs. Further, the Deputy City Manager and Chief Financial Officer quantify and document all anticipated financial and operational benefits of the Financial Planning, Analysis and Reporting System project. Such an analysis be completed by July 31, 2013.

4. City Council request the Deputy City Manager and Chief Financial Officer to report in detail to Council on the estimated costs to implement the capital budget component of the Financial Planning, Analysis and Reporting System.

5. City Council request the Deputy City Manager and Chief Financial Officer, the Director, Financial Planning and the Chief Information Officer review and approve detailed cost estimates for large scale information technology projects for accuracy and reasonableness prior to submission to the Budget Committee and Council. Such a review include a financial analysis to identify, quantify and document anticipated financial and operational benefits for implementation. Further, the review should be clearly documented and approved.

6. City Council request the Deputy City Manager and Chief Financial Officer and the Chief Information Officer to ensure that existing or prospective “off-the-shelf” software applications are thoroughly researched and investigated prior to developing a custom solution for future large scale information technology projects.
7. City Council request the Deputy City Manager and Chief Financial Officer, the Director, Financial Planning and the Chief Information Officer to ensure that upon project completion, a final “close-out” report is submitted to City Council. Such reports should include comparisons of budget to actual timelines, costs, actual benefits achieved and where applicable, a description of anticipated benefits not realized.

8. City Council request the Chief Information Officer to establish minimum documentation standards required in support of information technology projects. Standards should include one documentation repository in projects where various project leads exist. In addition, a formal process for collecting, addressing and reporting project risks and a formalized business change request process should be in place.

9. City Council request the City Manager direct all City Divisions to ensure documentation is maintained for issues and recommendations made by external consultants. Supporting documentation should include action taken on issues identified and related recommendations.

AUDIT OBJECTIVES, SCOPE AND METHODOLOGY

Audit Objectives

The objectives of the audit were to assess the adequacy of measures, controls and processes in place to ensure successful implementation of the FPARS project.

Audit Methodology

Our audit methodology included the following:

- Review of FPARS Project meeting minutes
- Review of relevant internal and external reports
- Review of calls to the Auditor General’s Fraud and Waste Hotline
- Review of project consultant contracts
- Review of internal and external reports relating to the project
- Review of various steering committee reports
- Review of related previous audit reports
- Review of policies, procedures and practices
- Interviews with relevant City staff
- Examination of relevant documents
- Review of related generally accepted industry practices
- Other procedures deemed necessary.

**Compliance with generally accepted government auditing standards**

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

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<thead>
<tr>
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<th>Original Custom Plan</th>
<th>PBF Plan</th>
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<tr>
<td>Proof of Concept</td>
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<td>PBF Implementation</td>
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<td>SAP Foundational Process Re-engineering</td>
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<td>Project Management Office</td>
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<tr>
<td>Facility/Operations</td>
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<td>$  5,402,435</td>
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<td><strong>Total</strong></td>
<td><strong>$15,199,876</strong></td>
<td><strong>$55,000,000</strong></td>
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*Source - Financial Planning Division*
**APPENDIX 2**

Management’s Response to the Auditor General’s Review of Financial Planning Analysis and Reporting System (FPARS) – A Large Scale Business Transformation/Information Technology Project

<table>
<thead>
<tr>
<th>Rec No.</th>
<th>Recommendations</th>
<th>Agree (X)</th>
<th>Disagree (X)</th>
<th>Management Comments: (Comments are required only for recommendations where there is disagreement.)</th>
<th>Action Plan/Time Frame</th>
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<tbody>
<tr>
<td>1.</td>
<td>City Council request the City Manager to ensure that prior to the development of all large scale information technology projects, a detailed review of all Auditor General’s recommendations be conducted. Specific check lists be developed and signed off by senior staff attesting to the fact that all Auditor General’s recommendations have been considered.</td>
<td></td>
<td>X</td>
<td>The IT capital planning and approval process under the oversight of the IT Governance structure will include all Auditor General’s recommendations applicable to all large scale information technology projects. Specific checklists will be developed and will include sign-off and approvals by city senior staff.</td>
<td>Time Frame: Q3 2013</td>
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<td>Rec No.</td>
<td>Recommendations</td>
<td>Agree</td>
<td>Disagree</td>
<td>Management Comments: (Comments are required only for recommendations where there is disagreement.)</td>
<td>Action Plan/Time Frame</td>
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<td>2.</td>
<td>City Council requests the City Manager to review the current governance structure pertaining to the Financial Planning, Analysis and Reporting System. Specific accountability and responsibilities be clearly defined and communicated. Reporting relationships be clearly structured and clarified including the roles of the City Manager, Deputy City Manager and Chief Financial Officer and the Chief Information Officer.</td>
<td>X</td>
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<td>In May 2009, FPARS’ project governance structure was strengthened by establishing the Director of Financial Planning (the Business Sponsor) and the Chief Information Officer (the Technology Sponsor) as Co-Executive Sponsors, Both report to the Chief Financial Officer who is the FPARS Project Champion. A Corporate Partners Steering Committee was established to bring the heads of the corporate business process owners (Accounting Services, Pension, Payroll &amp; Employee Benefits, Human Resources, Financial Planning and Information &amp; Technology) to steer the SAP implementation aspect of the FPARS project that reported through the governance structure to the SAP Steering Committee, a corporate SAP Governance body supported by the Enterprise Resource Planning Competency Centre –ERP CC - (formerly known as SAP Competency Centre). A Business Transformation Steering Committee was also established with membership from key Corporate Partners as well as City Divisional representatives from each of the 3 Clusters to provide advice and recommendations on process and policy change; change management and communication strategies through the CFO to the City Manager and Deputy City Managers for approval.</td>
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<td>Rec No.</td>
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<td>Agree (X)</td>
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<td>A Project Management Office to ensure integration of the business and technology implementation aspects of the project, comprised of the vendor’s Program and Project Manager, the PBF Implementation Program and Project Manager and the Business Transformation Program Manager, was established in 2012.</td>
<td>A review of the City’s IT governance structure and reporting relationship is currently underway. It is examining Committee roles, responsibilities and accountabilities with particular attention being paid to technology projects that are large scale, enterprise-wide and/or have corporate impacts. The FPARS project’s governance structure will be reviewed and aligned to ensure the appropriate reporting and accountabilities to the Business Executive Committee (BEC). Time Frame: Q3 2013</td>
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<td>In response to a previous Auditor General’s recommendation, a review of the ERP Competency Centre’s delivery model is planned to determine the most optimal approach and ensure that future SAP implementation projects have the necessary project planning, development and implementation expertise to identify, support and sustain City business needs. Time Frame: Q4 2013</td>
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<td>Rec No.</td>
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<td>Agree (X)</td>
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<td>3.</td>
<td>City Council request the Deputy City Manager and Chief Financial Officer to prepare a detailed and comprehensive analysis of all Financial Planning, Analysis and Reporting System related costs to date as well as those costs projected to the completion of the project. This information should also include all anticipated ongoing maintenance costs. Further, the Deputy City Manager and Chief Financial Officer quantify and document all anticipated financial and operational benefits of the Financial Planning, Analysis and Reporting System project. Such an analysis be completed by July 31, 2013.</td>
<td>X</td>
<td></td>
<td>The 2009 Capital Budget for FPARS of $15.2M reflected the new system design of an SAP configured solution which included business process re-engineering for financial planning, accounting and human resources information. However, given the decision to proceed with the SAP PBF solution, the Council approved 2010 Capital Budget was amended accordingly ($55M) to reflect significant additional dedicated staff and change management required for 2 years ($28.5M), as well as $12M to implement the SAP technology and tools. The Deputy City Manager and Chief Financial Officer will provide a report to the Budget Committee detailing FPARS’ total project costs, life-to-date actual expenditures and projected costs to the completion of the project as well as the ongoing operating costs arising from the completion of this capital project, reflecting an changes from those previously reported through the annual capital budget process. Time Frame: Q2 2013 The FPARS detailed business case will be updated to document any additional anticipated strategic and operational benefits arising from the implementation of the FPARS project by Q2 2013.</td>
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<td>Rec No.</td>
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<td>The quantification of financial benefits, (primarily to be realized from the reengineering of processes and system changes City-wide in all City Divisions and Agencies) will be estimated to establish the benefits of changes from current (as-is) to new and reengineered processes (to-be) once all process changes are documented through the FPARS project. This work is underway.</td>
<td>Time Frame: Q1 2014</td>
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<td>4.</td>
<td>City Council request the Deputy City Manager and Chief Financial Officer to report in detail to Council on the estimated costs to implement the capital budget component of the Financial Planning, Analysis and Reporting System.</td>
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<td>A separate and distinct project is included in Financial Services’ 10-Year Capital Plan entitled “Migration of CAPTOR”. It is intended that the City’s current capital budgeting system be replaced by PBF which has functionality for capital planning and budgeting. $5m has been cash flowed over 2014 to 2016 as a project cost placeholder in the 2013 – 2022 Capital Plan until business requirements are determined. • Rather than simply implementing the capital budgeting functionality in PBF, there is an opportunity to strategically implement integrated asset management processes across the City. • Specifically, this capital project will require the alignment of the City’s asset inventory to its service inventory (to complete the total costs of services), integration of asset management, capital planning and budgeting using PBF, SAP financial and</td>
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<td>work order systems, as well as the development of capital performance metrics.</td>
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<td>▪ This project could not have been undertaken at the same time as the current FPARS project, as the scope of work is extensive in its own right. There are insufficient resources to dedicate to this effort and there is no additional capacity in the organization to absorb any additional change.</td>
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<td>▪ The current FPARS project has been designed, where necessary, to take into account the implementation of PBF for capital planning and budgeting.</td>
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<td>Funding to conduct a detailed analysis to fully scope the business requirements (processes, data and systems), costs and benefits of implementing the capital budget component of FPARS will be requested in the 2014 Budget process. The analysis will determine the cost estimates and the implementation timeline to support the business case for implementation, for which funding will be considered in the 2015 Budget process.</td>
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<td>Time line: Q3 2014</td>
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| 5.      | City Council request the Deputy City Manager and Chief Financial Officer, the Director, Financial Planning and the Chief Information Officer review and approve detailed cost estimates for all large scale information technology projects for accuracy and reasonableness prior to submission to the Budget Committee and Council. Such a review include a financial analysis to identify, quantify and document anticipated financial and operational benefits for implementation. Further, the review should be clearly documented and approved. | X          |              | 1. Financial Planning and Information & Technology are working collaboratively to strengthen the existing capital planning and business case process for all large scale information technology projects. There is an increased emphasis on providing a full accounting of total costs and benefits, as well as ongoing operating & sustainment costs to determine the City’s Return on Investment (ROI).  
2. The IT Governance structure is being modified to strengthen the role of Enterprise Architecture Review Committee (EARC) to ensure proper due diligence for all large scale information technology projects with an in-depth feasibility study and a detailed financial analysis to identify, quantify and document the benefits prior to the committee's recommendations for Business Executive Committee (BEC)'s approval prior to submission to the Budget Committee and Council.  
Time Frame: Q3 2013 |
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<tr>
<th>Rec No.</th>
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<td>6.</td>
<td>City Council request the Deputy City Manager and Chief Financial Officer and the Chief Information Officer to ensure that existing or prospective “off-the-shelf” software applications are thoroughly researched and investigated prior to developing a custom solution for all future large scale information technology projects.</td>
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<td>The City's current IT principle is an “Off The Shelf” approach in IT capital project planning.</td>
<td>As part of the 2013 capital planning process, Financial Planning and Information &amp; Technology Division have established a two-phase project approval process:</td>
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<td>1. Phase 1. Approval for project feasibility, fit-gap analysis and business requirements analysis for large scale information technology projects.</td>
<td>1. Phase 1. Approval for project feasibility, fit-gap analysis and business requirements analysis for large scale information technology projects.</td>
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<td>2. Phase 2. Approval for project business case in which recommendations of solutions and implementation plans to include the due diligence in investigation and research of “off the shelf” options prior to any “custom developed” solution proposals.</td>
<td>2. Phase 2. Approval for project business case in which recommendations of solutions and implementation plans to include the due diligence in investigation and research of “off the shelf” options prior to any “custom developed” solution proposals.</td>
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<td>Time Frame: Q3 2013</td>
<td>Time Frame: Q3 2013</td>
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<td>7.</td>
<td>City Council request the Deputy City Manager and Chief Financial Officer, the Director, Financial Planning and the Chief Information Officer to ensure that upon project completion, a final “close-out” report is submitted to City Council. Such reports should include comparisons of budget to actual timelines, costs, actual benefits achieved and where applicable, a description of anticipated benefits not realized.</td>
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<td>The FPARS project is underway. The first phase – use of the PBF tool for the development of a service-based and performance-focused budget – will be ready for use for the 2014 Budget process. The re-engineering of financial planning, payroll, accounting and human resources processes, data and systems are proceeding with planned completion by the end of 2013.</td>
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|         |                 |           |              | Upon completion of the FPARS project, the Financial Planning Division and the Information & Technology Division will submit a final “close-out report” to City Council in compliance with current practice to provide planned and actual total project costs and timelines. In collaboration with Corporate Partners, City Divisions and Agencies, realized benefits will be provided as well as any that may have been anticipated but not realized (and why).  

Time Frame: Q4 2014  

It should be noted that the reporting out of the project-specific close-out information for major capital projects will be compiled and reported regularly by the Financial Planning Division in 2013, beginning with the Second Quarter Capital Variance Report. This action implements a previous Auditor General recommendation.  

Time Frame: Q2 2013 |
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<thead>
<tr>
<th>Rec No.</th>
<th>Recommendations</th>
<th>Agree (X)</th>
<th>Disagree (X)</th>
<th>Management Comments: (Comments are required only for recommendations where there is disagreement.)</th>
<th>Action Plan/Time Frame</th>
</tr>
</thead>
</table>
| 8.      | City Council request the Chief Information Officer to establish minimum documentation standards required in support of information technology projects. Standards should include one documentation repository in projects where various project leads exist. In addition, a formal process for collecting, addressing and reporting project risks and a formalized business change request process should be in place. | X         |              | 1. Information and Technology Division will review the current documentation practice to ensure minimum documentation standards  
Time Frame: Q2 2013  
2. As part of city’s standard IT project management practice, a corporate project documentation repository will be established.  
Timeframe: Q4 2014 | |
| 9.      | City Council request the City Manager direct all City Divisions to ensure documentation is maintained for issues and recommendations made by external consultants. Supporting documentation should include action taken on issues identified and related recommendations. | X         |              | Memo and a standard template by City Manager to all Division Heads to be issued to ensure that divisions’ documentation is maintained for issues and recommendations made by external consultants.  
Time Frame: Q3 2013 | |