REPORT FOR ACTION

Audit of the Enterprise Work Management Solution (EWMS): Lessons Learned for Future Large Information Technology Projects

Date: November 23, 2023
To: Audit Committee
From: Auditor General
Wards: All

SUMMARY

The Auditor General's 2023 Work Plan included an audit of the City of Toronto's Enterprise Work Management Solution (EWMS), also known as the EWMS program.

Since Toronto's 1998 amalgamation, the City divisions have used various systems to plan and track their work. Some of these systems are reaching end of life and were not designed to work across divisions in an integrated manner.

In 2011, the following four City divisions formed a work management group to evaluate the feasibility of an enterprise-wide work management system that could be shared and integrated across divisions:

- Toronto Water
- Parks, Forestry & Recreation
- Transportation Services
- Solid Waste Management Services

The EWMS program is expected to improve work management and service response times by integrating the divisions and the City's shared services, including 311. EWMS is being implemented in three phases across these multiple City divisions.

This audit focused on phase one of the EWMS implementation, which started in 2013, and management anticipates completing it by the end of 2023. Planning is underway for the implementation of phases two and three.

This audit examined how the EWMS program was planned and governed, including whether the program is meeting its budget and timelines, divisions' operational needs, and overall program objectives.

Our findings and recommendations for the Technology Services Division on the EWMS program related to the following areas:

    A. Strengthening Project Planning Processes
    B. Strengthening Project Governance
    C. Enhancing Controls to Improve Project Execution
    D. Strengthening Project Risk Management and Controls

We have made 14 recommendations in our report. Implementation of these recommendations will improve project planning, governance, and execution. The key lessons learned from this audit need to be applied not only to the EWMS program, but also to other large information technology (IT) projects of the City to improve overall project management and implementation.

In addition, the findings and recommendations reported in this report may have relevance to agencies and corporations. The Auditor General has recommended the City Manager to forward this report to major agencies and corporations for their review.

RECOMMENDATIONS

The Auditor General recommends that:

1. City Council request the Chief Technology Officer to ensure:

    a. All technology projects have an overall program-level charter developed that clearly defines the program implementation budget, timeline, and performance measurement, and is approved by all stakeholders

    b. An overall program-level charter for the remaining phases of the Enterprise Work Management Solution that clearly defines the program implementation budget, timeline, and performance measurement, and is approved by all stakeholders

    c. A performance measurement framework is established to measure the achievement of technology project goals on a regular basis until the project is completed

2. City Council request the Chief Technology Officer to leverage the Technology Services Division's Stakeholder Management Plan to improve stakeholder engagement, coordination, and communication for the remaining phases of implementing the Enterprise Work Management Solution.

3. City Council request the Chief Technology Officer to review and improve the existing project status monitoring criteria and dashboards to include:

    a. A methodology to accurately measure the implementation progress against budget spent and timelines

b. An update on the assessment of the benefits realization and potential losses that could incur as a result of increased expenditures and project delays

c. Potential short-term and long-term risks the project may face that would impact budget, timelines, and realizing intended benefits in a timely manner.

4. City Council request the Chief Technology Officer to report to City Council on the status of the Enterprise Work Management Solution program by June 30, 2024:

a. Total expected cost of implementation

b. Status of benefits realized for divisions that have completed the implementation

c. Planned benefit realization for the entire Enterprise Work Management Solution program.

5. City Council request the Chief Technology Officer to develop criteria and requirements for Executive Steering Committee meetings based on project size and complexity, to ensure a consistent approach is followed.

6. City Council request the Chief Technology Officer to develop a consistent mechanism for documenting Executive Steering Committee meetings, key decisions and required actions in the meeting minutes.

7. City Council request the Chief Technology Officer to review and modify the existing Enterprise Work Management Solution's program governance structure to:

a. Develop criteria and a process for escalation related for project delays to the Executive Steering Committee

b. Establish a process to monitor and respond to emerging risks that may cause project delays, budget overruns, and impact on benefits realization.

8. City Council request Chief Technology Officer to expedite the implementation of the Enterprise Work Management Solution to:

a. Utilize unused license subscriptions

b. Evaluate current license subscriptions and discontinue those that are not required

c. Develop a plan in coordination with Division Heads to discontinue legacy systems, in order to minimize risks of legacy applications becoming non-operational and save on renewal and maintenance costs and present the plan to the Executive Steering Committee.

9. City Council request the Chief Technology Officer to work with Divisions to establish a governance framework to ensure that:

a. Business processes are well defined in the planning phase before implementation

b. Role-based training is tailored for each business role before implementation

c. User acceptance testing includes end user devices for usability testing prior to implementation.

10. City Council request the Chief Technology Officer in coordination with the Chief Financial Officer and Treasurer to review the existing reporting process to City Council for major technology project budgets and costs and implement:

a. A process to ensure that consolidated budget and expenditures are reported to City Council for major cross divisional technology projects

b. A process to ensure that all expenditures from inception to date related to a major technology project are included in the Technology Service Division's Budget Notes and Quarterly Capital Variance Reports.

11. City Council request the Chief Technology Officer to:

a. Establish criteria as to what constitutes critical documents for a project

b. Develop a process to ensure critical documents are maintained and retained throughout the project management lifecycle, with final versions stored in the program site according to the City's Record Retention policy.

12. City Council request the Chief Technology Officer to ensure that:

a. Plans for the Enterprise Work Management Solution upgrade and Cloud migration are supported by a detailed risk assessment

b. An action plan to address potential risks and delays is approved by all stakeholders.

13. City Council request the Chief Technology Officer to develop a process to incorporate previous Auditor General audit report recommendations related to project management and governance of technology systems, and software license management, into the Technology Services Division's project management framework.

14. City Council request:

a. The City Manager forward this report to the major agencies and corporations for review.

b. The heads of agencies and corporations review the issues and recommendations included in this report and consider the relevance to their respective organizations for implementation.

FINANCIAL IMPACT

By addressing the recommendations in this report, the Technology Services Division will be able to improve the project planning, governance, and execution for phases two and three of the EWMS program. It will also help the City to realize the benefits intended by these projects, as well as improving software procurement and management of licenses. The resulting financial implications of any anticipated efficiencies, savings, and cost avoidance could not be determined at the time of this report.

DECISION HISTORY

The Auditor General's 2023 Work Plan included an audit of the City's Enterprise Work Management Solution and is available at:

https://www.toronto.ca/legdocs/mmis/2023/au/bgrd/backgroundfile-234051.pdf

COMMENTS

A high-level summary of the key audit findings is provided in the Audit at-a-Glance.

The findings noted in this audit provide lessons learned for not only phases two and three of EWMS implementation, but also for the City's other technology projects, particularly those that are cross divisional or enterprise wide.

The audit report in Attachment 1 provides the Audit Committee and members of Council with the detailed audit results and recommendations together with management's response. Management has agreed to all 14 recommendations.

These issues are not new - the Auditor General raised concerns in these areas in previous reports. Exhibit 1 included in Attachment 1 provides a list of these previous reports and relevant recommendations. We have recommended to incorporate these recommendations in the Technology Services Division's project management framework.

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SIGNATURE

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Auditor General

ATTACHMENT

Attachment 1: Audit of the Enterprise Work Management Solution (EWMS): Lessons
Learned for Future Large Information Technology Projects