Winnipeg | Audit

Implementation of Audit Recommendations Report for the Traffic Signals Branch Performance Audit, November 2010

May 2023

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Project Background

- Prior to 2015, the process for implementation of audit recommendations relied on Public Service representation. As of 2015, the Public Service is required to provide documentation and related activities that support progress and implementation, which is reviewed by the Audit Department for confirmation.
- On September 22, 2022, City Council adopted the motion *that the City Auditor be directed to report back on the 19 recommendations made by the City Auditor to Council in November 2010* utilizing our current process in place.

Project Objective

- The objective for this project was to review supporting documentation to determine whether the 19 recommendations made in the *Traffic Signals Branch Performance Audit, November 2010* were implemented.

Conclusion

- Of the 19 recommendations 11 were fully implemented, two partially implemented, one was not implemented, and two were not to be implemented. We were unable to conclude whether three recommendations were implemented.

Independence

The Audit Department team members selected for the project did not have any conflict of interest related to the project's subject matter.

Acknowledgement

The Audit Department wants to extend its appreciation to all of the stakeholders who participated in this project.



Jason Egert,

Acting City Auditor

Date: June 2023

1.1 Implementation of 2010 Audit Recommendations - Summary

	Audit Recommendation	Status[1]
1	Traffic Signal Branch management should develop a formalized mission statement, strategic plan and objectives for the Branch which align with the Division's goals and optimize the Branch's limited resources.	Partially implemented
2	Traffic Signal Branch management should conduct a workforce analysis to determine the appropriate staffing levels. In conjunction with this review, the Branch should also examine its current organizational structure to determine if this is the best structure to meet the objectives of the Branch. The results of the analysis should be used to develop a strategic staffing plan which would encompass any planned outsourcing of functions and any business or organizational changes which may impact staffing in the future.	Implemented
3	Traffic Signals Branch management should review and rate all intersections to determine the level of criticality. Based on the level of criticality, response priorities should be determined. Formalized priorities should also be established by incident type (i.e. bulb out, pole down, etc.). These priorities should be provided to all first response team members as well as IMI.	Not to be implemented
4	Traffic Signals Branch management should include one technician and one electrician on first responder teams.	Implemented
5	Traffic Signals Branch management should review the level of resources required to adequately staff the first responder team with the aim to reduce overtime incurred. The addition of a regular night and weekend shift should be considered as well as modified work hours.	Implemented
6	Traffic Signals Branch management should develop procedures in regards to the submission, review and approval of overtime claims for travel time and should implement a process to ensure all over time hours claimed are valid and supportable.	Not to be implemented
7	We recommend that Traffic Signals Branch management evaluate the feasibility and cost of contracting out one or more signal functions in order to make more efficient use of current Branch resources.	Not implemented

[1] See Section 1.2 for recommendation status requiring additional context.

8	The Traffic Signals Branch should develop an IS strategy or plan to maximize the benefit derived from information technology, to ensure alignment with the Branch's goals and objectives and to optimize the resources spent on information technology.	Unable to conclude[2]
9	We recommend the Traffic Signals Branch develop and report on, a comprehensive set of performance measures for each key area of the business. The performance measures should be linked to the Branch's goals and objectives and targets should be established for each measure.	Implemented
10	The Traffic Signals Branch should implement a comprehensive preventative maintenance program. Resources should be reviewed and analyzed to ensure adequate staffing either internally or externally exists to implement the program.	Implemented
11	Traffic Signals Branch management should develop a detailed project plan for the enhancement project to ensure the project is completed by the original overall completion date. The plan should include a human resource plan and a staff schedule which identifies the staff requirements to complete the project.	Unable to conclude[2]
12	Traffic Signals Branch management should perform more detailed financial tracking of the signal enhancement project, including a comparison of percentage of work completed and remaining to budget and should work with the project consultant to obtain detailed invoices which break down the project costs by individual corridor.	Partially implemented
13	Traffic Signals Branch management should continue to develop formalized monitoring capabilities within the Traffic Signals Management System. The Branch should establish benchmarks as to the level of "real" time monitoring they wish to achieve and the staff resources required to achieve these benchmarks. This benchmark and actual results achieved should form part of the Branch's performance information.	Implemented
14	Traffic Signals Branch management should develop a formalized signal timing review process. Resources should be reviewed to ensure adequate staffing either internally or externally exists to implement the program.	Implemented
15	Traffic Signals Branch management should ensure that both the vehicle license plate number and the police incident report are obtained, whenever possible when damage of a signal occurs as a result of a motor vehicle accident. The Public Works Department should request detailed damage claim information from the Risk Management Division to assist	Implemented

[2] Unable to conclude is defined as insufficient information in order to determine whether the recommendation was implemented. Certain outcomes were present which indicated that the recommendation may have been implemented, but the findings were inconclusive.

	them in determining the appropriate provision to set up against the outstanding receivable.	
16	Traffic Signals Management should review whether the paying of third-party invoices could be modified in order to prevent duplicate payments of retail sales tax. Management should consider whether the invoices could be paid directly by the Branch or whether retail sales tax could be shown as a separate line item on the consultant's invoice.	Implemented
17	Traffic Signals Management should discuss with the consultant on the enhancement project whether services provided which relate directly to the good purchased can be segregated from general consulting activity.	Implemented
18	Corporate Finance financial staff responsible for self-assessment of MRST should review the process in more detail to ensure that MRST is self-assessed in accurate manner. Refunds should be processed for MRST which was paid twice.	Implemented
19	Traffic Signal Branch management should perform a review of the suitability of their current facilities from a safety/health and requirements perspective, taking into account both their current and future needs.	Unable to conclude[2]

1.2 Recommendation Status Requiring Additional Context

Recommendation 1:

Traffic Signal Branch management should develop a formalized mission statement, strategic plan and objectives for the Branch which align with the Division's goals and optimize the Branch's limited resources.

Status:

Partially implemented.

We received a formalized mission statement and objectives from the Branch, however, we were unable to determine whether a strategic plan had been created in response to this recommendation.

The Branch provided the 'Deferred Calls Procedure' document that details the criticality for responder crews to attend to damaged traffic signals infrastructure. It also outlines when reinstallation of a traffic signal pole can be deferred to the next regular crew shift or when the damage must be fixed immediately, which requires employees to work overtime.

2023 Public Works Response:

Agree. The Traffic Signals branch has a mission statement and Deferred Calls Procedure to optimize the branch's limited resources, however has yet to develop a strategic plan and objectives that aligns with the Division's goals. The strategic plan will be prioritized and developed during the 2024-2028 multi-year budget process. Target date for completion – End of Quarter 4 – 2024.

Recommendation 3:

Traffic Signals Branch management should review and rate all intersections to determine the level of criticality. Based on the level of criticality, response priorities should be determined. Formalized priorities should also be established by incident type (i.e. bulb out, pole down, etc.). These priorities should be provided to all first response team members as well as IMI.

Status:

Not to be implemented.

The recommendation was reported as not to be implemented in Q4 2014. The Branch informed us that the intersection criticality is not a fair ranking for pole damage, and even at critical intersections, the type of pole and damage is more important than an intersection as a whole.

Additionally, First Responder/Callout Deferrals procedures were updated in 2013 and finalized in 2017. The prioritization of trouble calls is performed by the actual First Responders on shift (and not by 311 as IMI is no longer used) and determined by three factors; location of call, severity of call and location of the First Responders when call is reported.

2023 Public Works Response:

Agree with Q4 2014 recommendation that this recommendation should not be implemented. The Deferred Calls Procedure outlines the criticality of the pole versus the criticality of the intersection. This is a much more reliable measure as a critical pole at a less critical intersection may be more important than a less critical pole at a more critical intersection.

With the deferred calls procedure, the Public Works Department believes the status of this recommendation should remain as not to be implement, and no further action required.

Recommendation 6:

Traffic Signals Branch management should develop procedures in regards to the submission, review and approval of overtime claims for travel time and should implement a process to ensure all over time hours claimed are valid and supportable.

Status:

Not to be implemented.

In Q3 2020, the Public Works Department Director confirmed that the recommendation would not be implemented. Electrician overtime is tracked using work orders setup for each account and damage, and majority of the overtime worked relates to emergencies responding to damages. When non-emergency overtime is worked by the electricians, the Traffic Signals Foreman requests permission from the Traffic Signals Operations Supervisor prior to working the overtime.

2023 Public Works Response:

Agree with Q3 2020 recommendation that this recommendation should not be implemented. The Electrician overtime is tracked using work orders, majority of overtime worked is related to emergencies responding to damages as per the Deferred Calls Procedure. Non-emergency overtime is worked when required and approved by the Traffic Signals Operations Supervisor, this work is primarily to meet operations timelines for capital projects.

With tracking all overtime on work orders and having non-emergency overtime pre-approved, the Public Works Department believes the status of this recommendation should remain as not to be implement, and no further action required.

Recommendation 8:

The Traffic Signals Branch should develop an IS strategy or plan to maximize the benefit derived from information technology, to ensure alignment with the Branch's goals and objectives and to optimize the resources spent on information technology.

Status:

Unable to conclude.

The Branch has indicated that there have been changes to the information system (IS) since the audit, and therefore, we were unable to obtain supporting documentation to conclude whether the recommendation was implemented.

We observed that the Branch has a Signals Management System (SMS) and a Video Management System (VMS) that facilitates for real-time communication between the traffic signals on the streets and a central control system. The SMS enables technical staff to monitor and address problems in real-time, while the VMS allows technical staff to view intersections, inform signal adjustments and assist Branch First Response teams.

2023 Public Works Response:

Agree. The Traffic Signals branch has made significant enhancement with IS since 2010 including the implementation of the Signals Management System (SMS), Video Management System (VMS), and an asset inventory database. As well to support these enhanced systems and assist with asset management the branch has hired a Data Scientist and dedicated Network Systems Administrator. Based on the work completed to data and the ever-changing enhancements in the field of IS, the Public Works department will review the recommendation to develop a Traffic Signals specific IS strategy/plan. Target date for completion – End of Quarter 4 – 2024.

Recommendation 11:

Traffic Signals Branch management should develop a detailed project plan for the enhancement project to ensure the project is completed by the original overall completion date. The plan should include a human resource plan and a staff schedule which identifies the staff requirements to complete the project.

Status:

Unable to conclude.

We did not receive detailed information regarding the project plan, however, the Signal Enhancement Project has been completed.

2023 Public Works Response:

Agree, unable to conclude if a detailed project plan was complete for the Signals Enhancement Project. As the project was complete in 2018 no further action is required, however detailed project management plans will be implemented for future projects.

Recommendation 12:

Traffic Signals Branch management should perform more detailed financial tracking of the signal enhancement project, including a comparison of percentage of work completed and remaining to budget and should work with the project consultant to obtain detailed invoices which break down the project costs by individual corridor.

Status:

Partially implemented.

The Branch provided detailed invoices, a project breakdown of the costs by locations, and the 'Monthly Capital Expenditure Report'. The report discloses all live capital projects for the City of Winnipeg and is posted on the City's website. It includes project details such as the project year, budget, actual costs to date, available balance and % spent (the signals enhancement project was noted in the August 2015 report). The report does not include the comparison of percentage of work completed to budget, and therefore, the recommendation was not fully implemented.

2023 Public Works Response:

Agree. The tracking of the signal enhancement project included detailed invoices, project breakdown by location and the 'Monthly Capital Expenditure Report' however appears to have missed the comparison of

percentage of work complete and remaining to budget. As the signal enhancement project was complete prior to 2018 no further action is recommended. The Traffic Signals branch does not currently have any ongoing projects similar to the System Enhancement Project, for future projects of similar scale detailed financial tracking including the comparison of percentage of work completed to budget will be implemented.

Recommendation 19:

Traffic Signal Branch management should perform a review of the suitability of their current facilities from a safety/health and requirements perspective, taking into account both their current and future needs.

Status:

Unable to conclude.

We confirmed that renovations were completed for the existing Traffic Signals Branch facility as well as the Traffic Management Center and that the renovations follow all applicable building codes, by-laws, local authorities having jurisdiction and included health/safety items. However, we were unable to conclude whether a review was performed for the suitability of their current facilities from a requirements perspective.

2023 Public Works Response:

Agree. Unable to determine if a specific review was performed for the suitability of the current facility from a requirements perspective.

Facility safety inspections are completed quarterly as part of health and safety committee meetings. To increase safety of employees working outside of regular office hours, visitor parking located directly adjacent to the main entrance is utilized.

Operationally, in the ideal scenario the Traffic Signals facility would be larger with dedicated shop space, space to park all work trucks and cable trailers indoors and would have a larger secure compound for storage of traffic signal poles & other equipment, however in discussion with the various traffic signal groups, and understanding an ideal scenario facility would cost significantly more, the existing facility meets all basic requirements.

Based on the safety committee inspections and discussion of existing operations the existing facility meets all basic requirements and no further action required.

Appendix 1 – Project Methodology

The City Auditor is a statutory officer appointed by City Council under *The City of Winnipeg Charter*. The City Auditor is independent of the Public Service and reports directly to Executive Policy Committee, which serves as the City's Audit Committee.

The City Auditor conducts examinations of the operations of the City and its affiliated bodies to assist Council in its governance role of ensuring the Public Service's accountability for the quality of stewardship over public funds and for the achievement of value for money in City operations.

Once a report has been communicated to Council, it becomes a public document.

Project Risk Analysis

Not applicable for this project.

Scope

The 19 recommendations from the *Traffic Signals Branch Performance Audit, November 2010* as directed by Council.

Approach and Criteria

The work performed in relation to this report does not constitute an audit conducted in accordance with Generally Accepted Government Auditing Standards (GAGAS). The work performed does conform to Audit Department standards for independence, objectivity and quality. We believe we have performed sufficient work in satisfaction that the evidence obtained provides a reasonable basis for our findings and conclusions.