

## **Radio Communications System Replacement**

<b>Date:</b>	September 19, 2008
<b>To:</b>	Budget Committee
<b>From:</b>	Fire Chief William A. Stewart
<b>Wards:</b>	All
<b>Reference Number:</b>	p:\2008\ClusterB\FIR\bc0812.doc

### **SUMMARY**

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The purpose of this report is to provide a project status update to the Budget Committee as requested by Council through the 2008 Capital Budget process. The Chiefs of Toronto Police Service and Emergency Medical Services as well as the Steering Committee for the Radio Communication System Replacement project were consulted in preparation of this report.

The Radio Communications System Replacement Project is currently in the system design stage and registers good progress in this area. However, there are new radio frequency spectrum regulatory issues that have an impact on the system design and on the timelines of the subsequent project phases. The Steering Committee, at its July 2, 2008 meeting, has approved the changes to the project timelines as put forward by the Technical Subcommittee. The changes do not present additional risk to the radio infrastructure and do not impact the overall success of the project. There is no total project budget impact and there are no changes to the 2008 expenditures. There are requirements to change the requested cash flows for future years. This report will present the adjustments to the required 2009-2012 cash flows. In addition, the approved project cash flows will be further reviewed and adjusted as required as part of the 2009 Capital Budget process.

### **Financial Impact**

There is no change to the total Capital funds required for the project beyond what has already been approved in the 2008 Capital Budget and 2009-2012 Capital Plan. Changes are required in the cash flows and will add one year to the project with a revised planned completion in 2012.

The total project cost is estimated at \$70 million, with the bulk of the funds required between 2010 and 2012 (\$28 million in each of 2010 and 2011, and \$13.250 million in 2012).

In 2007, \$0.027 million was spent for consulting and educational/training initiatives. The consulting firm of Lapp-Hancock was retained and worked with the three public safety services to develop a Governance Agreement. The signing of the Governance Agreement was a significant achievement and provides a framework to cover issues related to system administration, including, for example, sharing of the system, change management and new members. Funds were also spent on training/educational initiatives related to the technical subcommittee in order to enhance knowledge of the current industry standards for radio communication related to Project 25 protocols. \$0.223 million in remaining funds, were carried over into 2008 and added to the \$0.250 million already approved for that year. Costs for 2008 include a Project Manager who is expected to be hired in the last quarter of 2008 for an estimated cost of \$24,000. The Technical Subcommittee, with the approval of the Steering Committee, has initiated procurement activities for the acquisition of specialized testing equipment estimated at \$130,000 and support tools (propagation modeling, standards, asset management) estimated at \$230,000. An additional \$80,000 is estimated for travel and registration costs related to training and testing activities for the Technical Subcommittee members. For 2009, an estimated \$250,000 has been identified for activities related to the detailed design of the system including project management services, detailed coverage analysis, and release of an RFP.

The following table summarizes the changes to the project cash flow:

\$000s	Commitments		Estimates				Total
	2007	2008	2009	2010	2011	2012	
2008 Approved Cash Flow Plan	50	450	28,000	28,000	13,500		70,000
Revised Cash Flow Plan	27	473	250	28,000	28,000	13,250	70,000
Change	(23)	23	(27,750)	-	14,500	13,250	-

The revised cash flows will form part of the 2009 Capital Budget submission.

The Deputy City Manager and Chief Financial Officer has reviewed this report and agrees with the financial impact information.

## DECISION HISTORY

In 2004 the Chiefs of Toronto Fire, Police and EMS forecast the upcoming requirement to replace the City's public safety voice radio system shared by all three agencies. In 2005 a consultant was commissioned to review technology direction and financial impact.

At its meeting of March 7, 2007, City Council approved the 2007 Fire Services Capital Budget and in so doing, adopted the following recommendation:

49. An initial project cost for the Radio Communication System Replacement of \$0.500 million for consultant studies be approved with cash flow commitments of \$0.250 million in 2007 and \$0.250 million in 2008 and that the Chiefs of Toronto Fire Services, Toronto Police Service and Emergency Medical Services in consultation with the Steering Committee for Radio Communication System Replacement project and Deputy City Manager and Chief Financial Officer, report to the Budget Committee by July 2007 on the project status and any emergent issues, detailed project cost and cash flows.

At its meeting of December 11, 12 and 13, 2007, City Council approved the 2008 Fire Services Capital Budget and in so doing, adopted the following recommendation:

64. the Steering Committee for the Radio Communication System Replacement project report to Budget Committee on an annual basis starting in July 2008 to update the status of the project including project management costs and infrastructure issues including the disposition of hand-held portable radios once known.

## **ISSUE BACKGROUND**

The City's Public Safety Voice Radio system is approaching the end of its supported lifecycle. After 2012 system support will become "best effort" with no availability of replacement components. This is significant risk for the City's most critical system where any outage will impact first responders' ability to deliver services to the public.

## **COMMENTS**

A Radio Communications Steering Committee, co-chaired by Fire, Police, and EMS, reporting to the City Manager has been developed to provide project oversight. This report provides the latest information on the project and re-evaluates the budget impact included in the Capital Budget projections. The initial timelines for the completion of the project must be changed due to new radio frequency spectrum allocation issues.

The Technical Subcommittee recommended the implementation of the new system in the newly opened 700 MHz frequency band, in order to reduce the impact of possible interference that presently affects the 800 MHz band. There were changes to the 700 MHz frequency allocations in the USA that require changes in the Canadian spectrum allocations. Industry Canada is still in the process of finalizing its decision and has committed to an early 2009 decision. The Technical Subcommittee, The Steering Committee and the Chiefs of the three public safety services, have done extensive work to provide input to Industry Canada and convey their sense of urgency in the spectrum decision. As a result, the decision was made to delay the project by one year until the spectrum issue is finalized. This decision will reduce the risk of additional costs for

retuning the system after its initial implementation. The decision to delay the implementation of the system does not add risk to the capability of the services to maintain the present infrastructure since the plan is to have a replacement in place by the target date of 2012.

In 2009, a Request for Proposals will be issued to identify a preferred system solution that meets requirements to be developed by the three emergency services. A Project Manager will be hired in the latter part of 2008 to oversee the project on behalf of the three emergency services. These two events will allow the development of a more specific project plan, and will also allow more definitive costings for inclusion in the City's capital budget. Significant expenditures on the project are not anticipated until 2010 and beyond, following the selection of a vendor and awarding of a contract.

This radio infrastructure project includes costing for the replacement of Fire mobile (in-vehicle) radios and a contingency for Fire handheld radios. This is estimated to be \$7 million and also includes upgrade costs for existing radios from all three agencies. However there are also replacement and/or additional radios budgeted within each of the Police, Fire, and Emergency Medical Services Capital Budgets. These radios are currently being purchased as required. The contingency within the Radio Communication project will only be used if, by the time the new system is implemented, the recently purchased portable radios are ultimately discontinued and available models are incompatible with existing portable radios. The Steering Committee had been asked to report back on the disposition of this issue once it is determined. It is currently too early to assume any budget reductions related to this issue. Careful planning and monitoring of the integration of existing radios will continue to be a priority.

This project represents a unique and effective partnership among the City's emergency services. It also represents a significant expenditure for the City. For both these reasons the proper oversight and involvement from the City Managers Office, Finance and Internal Audit has been established.

## **CONTACT**

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## **SIGNATURE**



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