TO:	CHAIR AND MEMBERS COMMUNITY AND NEIGHBOURHOODS COMMITTEE MEETING ON **SEPTEMBER 27, 2011**
FROM:	**JOHN KOBARDA FIRE CHIEF LONDON FIRE DEPARTMENT**
SUBJECT:	**BUSINESS INTELLIGENCE PROGRAM**

RECOMMENDATION

That, on the recommendation of the Fire Chief, with the concurrence of the Executive Director - Community Services, the Manager of Purchasing and Supply and Chief Technology Officer , the following actions **BE TAKEN**:
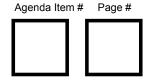
1. The quote submitted by Intergraph Canada Ltd, 250-7070 Mississauga Rd, Mississauga ON, L5N 7G2, for the supply and installation of London Fire Business Intelligence for Public Safety at their proposed price of $129,093, HST extra, **BE ACCEPTED**;

2. The quote submitted by Intergraph Canada Ltd, 250-7070 Mississauga Rd, Mississauga ON, L5N 7G2, for the supply and installation of London Fire Incident Analyst at their proposed price of $38,000, HST extra, **BE ACCEPTED**

3. The quote submitted by Intergraph Canada Ltd, 250-7070 Mississauga Rd, Mississauga ON, L5N 7G2, for Phase 2 of the implementation of London Fire Incident Analyst at their proposed price of $55,000, HST extra, **BE ACCEPTED**

4. The funding for this purchase can **BE ACCOMODATED** within the 2011 Fire Department Budget;

5. Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this purchase; and

6. Approval hereby given **BE CONDITIONAL** upon the Corporation entering into a formal contract or having a purchase order, or contract record relating to the subject matter of this approval.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

- Service Review 2010 – Business plan for addition of Business Intelligence

BACKGROUND

The approach of the London Fire Department (LFD) over the past seven (7) years has been to ensure that the services provided to the citizens of London are done so in an efficient and effective manner within the Council approved budgets. An example of this is the move from single use vehicles (engines) to multipurpose vehicles (pumper rescues) thereby expanding the depth of extrication and rescue services without increasing staffing. This approach also allowed the LFD to decommission one (1) of its two (2) heavy rescues and redeploy the staff to the new Station 14 thereby increasing service to the City with a minimal increase in staff (hire of four (4) staff vs. the usual twenty (20) that is required to staff an engine company). As well, the LFD with Council's

approval added one (1) multipurpose quint and redeployed the aerial equipped fleet to improve aerial coverage across the City.

In order to be able to make these kinds of fundamental decisions it is necessary to rely on efficiency and effectiveness measures. In an environment where financial resources are increasingly becoming scarce, it is ever more important for the LFD to be able to access data from which it can manage the business and seek opportunities for increased efficiencies. It is increasingly important for the Department to access "real time" data for the purposes of measuring department performance, re-evaluate station and resource deployments based on service needs, enable future planning and departmental accreditation, monitor service trends and the provision of benchmarking information to Council, OMBI and the Province. The requirement to measure performance has increased exponentially including a provincial requirement to conduct a Comprehensive Risk assessment annually and then to provide reports on fire protection to the Office of the Ontario Fire Marshal.
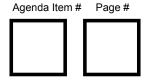
Currently, any measures tracked by the Department require the use of laborious and manual methods sometimes taking up to 100 hours to distil just one (1) measure. Notwithstanding the workload challenges herein noted, there are also some "real time" measures that the Department would want to access but cannot for that reason. Currently data is retrieved through ad hoc reports provided by TSD. Time delays in getting such reports from TSD are due to limited technical resources available within that department. Furthermore because of the complexity of some performance measures, the Department is unable to readily access "real time" data for the purpose of monitoring performance, identifying trends, etc. One of the key measures of any fire service is its emergency responsiveness. It is also the most expensive component of the business. As such, the availability of accurate "real time" information in order to make decisions is critical. In addition, the ability to access "real time" data permits reviewers to immediately identify when performance standards have not been met thereby permitting an immediate follow up to identify systemic issues, explainable delays or errors in input, efficiency improvements, etc. and implement remedial solutions. The Department requires tools that enable quick and precise review and analysis. In addition the implementation of a Business Intelligence program will enable end users to develop intelligent reports and reduce the need for highly technical TSD resources. This will enable TSD to use it resources for more highly technical tasks.

The LFD has worked with TSD over the last several years toward the development of a records management program, however experience has shown that given the complexity of the Department's needs it may be more efficient and effective to meet its requirements with "off the shelf" packages. With Joseph Edward joining the City, the LFD has been able to explore possible solutions toward its challenges, including purchasing a standalone-outsourced product. This strategy also conforms with the strategic direction the technology services division is taking to become a business enabling division.

Late last year, early this year, the LFD with TSD's assistance reviewed several different programs which would supply the Department with the necessary analyses as well as the mapping programs which would give visual representations of specified events (e.g. concentration of arsons, structure fires, auto extrications, etc). One of the critical requirements is that any purchased program must integrate with the existing CAD system in order to use the existing data. It should be noted that there are not a large number of third party fire-based business intelligent tools. The Department was able to review products from two (2) suppliers one of which was Intergraph the supplier of the City's fire CAD system. Based on the review, the programs developed by Intergraph provided a more intuitive user-friendly approach than the competitor's product. In addition by using the Intergraph program integration with the system will be assured, as well as stability, as Intergraph is the LFD's CAD program, where a great deal of the information is currently gathered.

As allowed under the Procurement of Goods and Services Policy – Section 14.4 Non-Competitive purchases – Single Source, it is recommended that to ensure that the program is compatible with the existing CAD system the Business Intelligence (BI) and Incident Analyst (IA) programs be purchased from Intergraph. If a supplier other than Intergraph were used it would still be necessary to employ the services of Intergraph to integrate the product with the CAD system. By using the Intergraph product the integration would be seamless.

The Department upgrades the CAD system every three (3) years to coincide with the expiration of the hardware leases and to ensure that the Department has the most current program in place. The

current version of CAD is 8.1 with the Department seeking to upgrade to version 9.1 in 2012. The Business Intelligence and Incident analyst programs are designed to work with 9.1 version of CAD. It is therefore recommended that the implementation of the programs be completed in 2 phases. Phase 1 would be completed in 2011 where Intergraph would provide a standalone system which would contain the BI foundations, the necessary report writers, and licences as well as a snapshot of the historical data. It would also include an Oracle to SQL server database conversion, which aligns with the approach that TSD is taking. A 2011 implementation will provide the Department with the ability to work with the system to ensure that the data has migrated properly as well as evaluating and identifying customs reports. Phase 2 will then be the development of the custom reports as well as the integration to the CAD system during the upgrade in 2012.

The London Fire Business Intelligence for Public Safety will provide accurate "real time" data to enable the Department to react to issues as they arise, monitor trends and performance and provide benchmarking data. The Business Analyst program will provide the department with the ability to map events and trends and plan accordingly.

FINANCIAL IMPACT

Phase 1 of the process can be accomplished in 2011. The cost of the London fire Business Intelligence for Public Safety can be provided at a cost of $130,000 HST extra while the London Fire Incident Analyst program can be supplied at a cost of $38,000 HST extra. Both of these costs can be accommodated within the existing 2011 Fire Department budget as the result of one time savings from unanticipated retirements and unfilled positions. Phase 2 implementation in 2012 will be $55,000 with funding allocated from the 2011 annual budget Annual maintenance cost thereafter will be $17,680 for the Business Intelligence program and $3,700 for the Incident Analyst Program which would be accommodated within future operating budgets.

Acknowledgments

CONCURRED BY:	CONCURRED BY:
John Freeman **Manager of Purchasing and Supply**	Joseph Edward **Chief Technology Officer**
RECOMMENDED BY:	**CONCURRED BY:**
John Kobarda **Fire Chief**	Ross L Fair **Executive Director Community Services**

c.   J Fielding