Office of the City Auditor

To: Honorable Mayor and Members of the City Council

From: Ann-Marie Hogan, City Auditor

Subject: FUND$ Change Management Audit

RECOMMENDATION

That Council request the City Manager to ensure that the recommendations in the attached report are fully implemented as expeditiously as possible, and to report back no later than December 31, 2004, regarding the implementation status of each recommendation in the attached report. Information Technology's estimate of additional staffing resources to mitigate the risk identified in Finding 2 of the report should be referred to the budget process. A date should be set for a follow-up report to Council if any recommendations remain unimplemented at the time of the December report.

SUMMARY

A series of audits of the City's information technology was included in the Auditor's fiscal year 2004 audit plan, with the support of the City Manager and the Director of Information Technology (IT). The attached FUND$ Change Management Audit was performed to evaluate the adequacy of internal controls over program changes to FUND$, the City's financial system. Audit fieldwork began on September 16, 2003, and concluded February 11, 2004. Some of the major concerns identified in the audit were:

1. The City does not have written policies or procedures in place to provide guidelines for implementing program modifications to FUND$.
2. Financial programs and data are inadequately safeguarded against unauthorized changes because:
   - The functions of making software changes and migrating changes into production are not properly segregated. In addition, programmers have unrestricted access to the production environment to perform various assigned functions.
   - Controls over the software vendor's remote access to FUND$ are inadequate.
3. Some FUND$ related service requests are not consistently logged or documented.
4. Not all FUND$ modules have a module leader (individual responsible for monitoring performance of the software).
5. There are continued concerns with FUND$ version upgrades:
   - The vendor's approach to testing software changes is inadequate.
   - The upgrade process is complicated by a large number of custom programs maintained by the City, and the extent to which each modification continues to be necessary in order to address shortcomings in the software for meeting the City's business requirements is unclear.

- The vendor's documentation is inadequate.
- There is poor coordination among City Departments regarding management of the financial software's performance.
6. Project management methodology and IT governance are not formalized.

FISCAL IMPACTS OF RECOMMENDATION

The auditors found that risk to the City in the area of control over changes to the software, and particularly the computer access and responsibilities of IT staff is considerable, and it appears that significant resources will be needed in order to address that risk. In order to segregate incompatible program change functions (Recommendation 2.1) and to implement adequate supervisory review of change activities (Recommendations 2.2 and 3.3) as preventive measures to safeguard the financial system against unauthorized changes, additional staff resources will be required.

The IT Director estimates that two additional full-time employees (one senior system analyst and one programmer/analyst) are needed to accomplish this. In addition, the Human Resource Director notes that increased responsibilities for module leaders may have workload implications for the affected departments.

This information was obtained from IT after the draft report was presented. Estimated costs for the two employees, including full benefits, would be between $162,000 to $202,000 per year, according to our calculations. The auditors are not making a specific recommendation regarding the exact amount of resources needed, nor whether the resources should be obtained by cutting positions in other departments or by eliminating specific services performed in other divisions in IT.

CURRENT SITUATION AND ITS EFFECTS

The Department of Information Technology indicated that they have taken steps to improve program change controls to FUND$. A standard change management protocol for version upgrades has been implemented. In addition, a database has been developed to record changes for upgrades. However, properly segregating incompatible program change functions (Recommendation 2.1) and implementing adequate supervisory review of change activities (Recommendation 2.2 and 3.3) cannot be fully implemented without adding two full-time programming staff in the Application Development Division, according to IT. The formation of a policy group to govern IT resource allocation and project prioritization (Recommendation 7.1) is in progress. This governing body will help to ensure that IT resources are allocated effectively to meet the City's business needs. The City Manager indicates that our recommendation that the City amend the contract with H.T.E. to require improvements in their practices and documentation cannot be addressed until 2007.

RATIONALE FOR RECOMMENDATIONS

Most of the City's financial data is processed in FUND$. While changes to the system are inevitable to meet new business requirements and needs, it is important to have adequate change management controls in place to protect the system against unauthorized changes that may corrupt critical system files or data.

CONTACT PERSON

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Approved:

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