



# **Report of Management Actions on Internal Audit Recommendations**

**As of June 30, 2014**

---

**City of Tulsa Internal Auditing**  
**January 2015**



# **Report of Management Actions On Internal Audit Recommendations**

**As of June 30, 2014**

## **City of Tulsa Internal Auditing**

A handwritten signature in black ink that reads 'Ron Maxwell'.

---

**Ron Maxwell, CIA, CFE  
Chief Internal Auditor**

A handwritten signature in black ink that reads 'Cathy Criswell'.

---

**Cathy Criswell, CPA, CIA  
City Auditor**

**AUDIT TEAM:  
Cecilia Ackley, CPA  
Jan Fields**

## **Introduction**

Internal Audit annually performs follow-up procedures to report actions taken by management on internal audit recommendations. This process accomplishes a charter duty of the City Auditor and provides an opportunity for City departments to review the results of audit work. We appreciate the cooperation of City departments involved in this effort.

Internal Audit has tracked audit results since the department was created in 1988. As of June 30, 2014 this tracking database contained 1066 recommendations. Twenty-five areas of the City have been covered by these recommendations. The chart below provides a historical summary of recommendations by department.

## **History of Audit Recommendations**

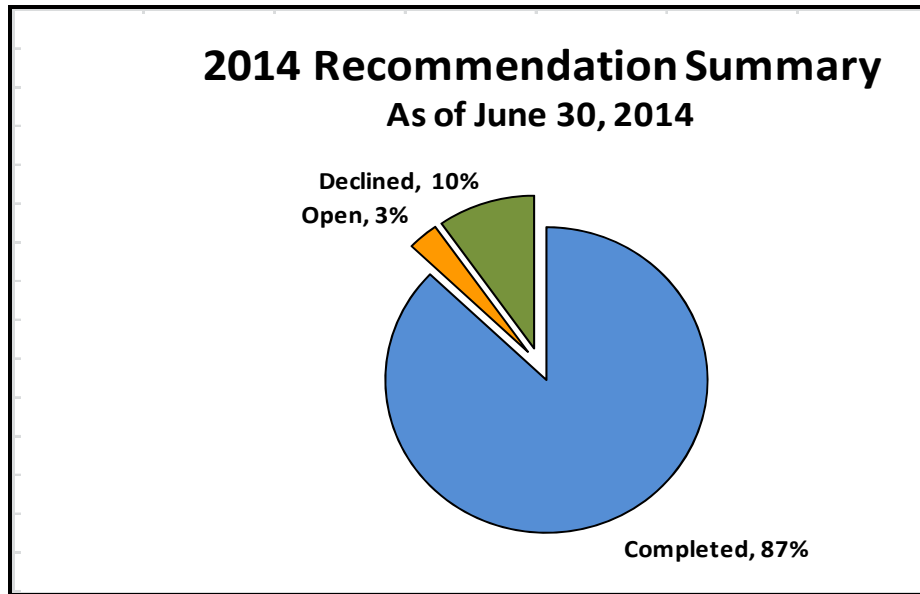
**As of June 30, 2014**

<b>Department</b>	<b>Findings</b>	<b>Declined</b>	<b>Completed</b>	<b>Open</b>
Airport	44	3	41	0
City Council	16	0	16	0
Citywide	42	7	29	6
CDEI	5	0	5	0
Development Services	21	2	19	0
Economic Development	6	1	5	0
Equipment Management	31	1	30	0
Finance	231	27	200	4
Fire	40	0	40	0
Gilcrease Museum	23	0	23	0
Grants Administration	8	0	8	0
Human Resources	112	8	100	4
Human Rights	8	0	8	0
Information Technology	110	7	88	15
Legal	13	1	12	0
Municipal Court	38	4	34	0
Parks	47	8	39	0
Performing Arts Center	7	0	7	0
Police	134	24	110	0
Public Works	105	9	95	1
Real Estate Management	5	0	5	0
Streets & Stormwater	3	0	0	3
Emergency Management	2	0	2	0
Working in Neighborhoods	9	1	8	0
Zoo	6	1	5	0
<b>TOTAL</b>	<b>1066</b>	<b>104</b>	<b>929</b>	<b>33</b>

Internal Audit annually reviews the database to identify open corrective actions management has agreed to implement. Status update inquiry forms were sent requesting information on actions taken, changes in conditions or the need for additional implementation time. Based upon the information obtained through the inquiry forms status update process:

**City Managers have accepted ninety percent (90%) of Internal Audit's recommendations.**

**Eighty-seven percent (87%) of the recommendations are completed and three (3) percent are open.**



For reporting purposes, we assigned recommendations into one of the following categories:



**Completed**

We reviewed information provided by the audited entity and determined the agreed upon corrective action has been implemented per the report, status inquiry response or other follow-up procedures.



**Open**

We categorized an agreed upon corrective action as open when its implementation is in process; or additional monitoring to ensure its completion is warranted.



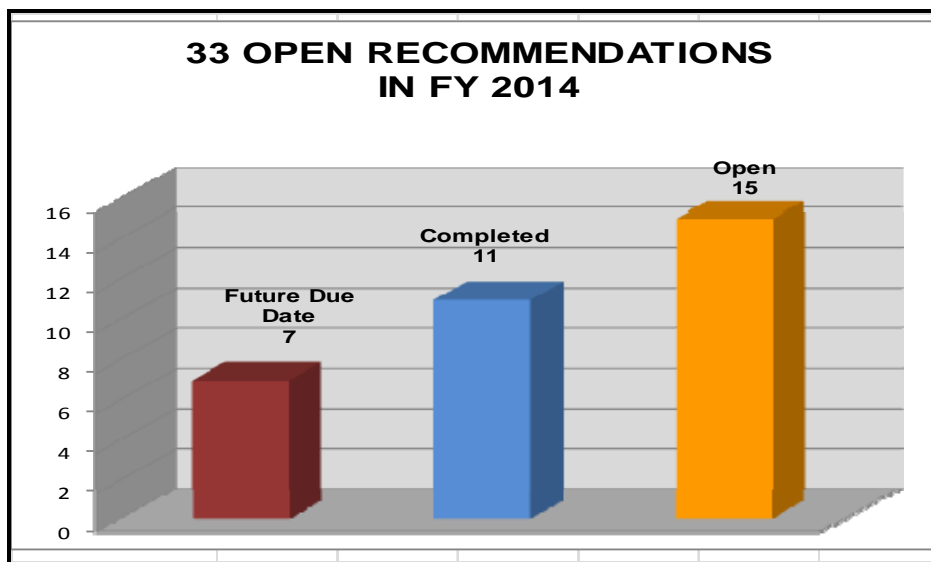
**Declined**

We categorized a recommendation as declined when it met one of the following conditions:

- 1) Departmental management does not agree with the recommendation and is not planning to implement. When management elects this option they are advised of their responsibility for accepting the identified risk that generated the recommendation.
- 2) The recommendation is no longer relevant based upon changed conditions.
- 3) Implementation is declined due to budget and/or staffing limitations or other factors beyond the control of management.

## Implementation Status

As of June 30, 2014 there were 33 agreed upon open corrective actions in the database. Twenty-six (26) of these had completion dates prior to June 30, 2014. Based upon the information obtained through the inquiry forms status update process, 15 corrective actions remain open and 11 were completed. There are also 7 open corrective actions that did not receive status update inquiry forms because their follow-up dates are **after** June 30, 2014.



### **Future Due Date**

Recommendations with follow-up dates after June 30, 2014.



### **Open**

We categorized an agreed upon corrective action as open when its implementation is in process; or additional monitoring to ensure its completion is warranted.



### **Completed**

We reviewed information provided by the audited entity and determined that the agreed upon corrective action has been implemented per the report, status inquiry response or other follow-up measures.

## **COMPLETED CORRECTIVE ACTIONS 2014**

The table below summarizes corrective actions **completed** according to management's responses to the status update inquiry forms as of June 30, 2014

<b>FINDING</b>	<b>RECOMMENDATION</b>	<b>STATUS DETAIL</b>
<b>2006 HIRING AND PROMOTION – Human Resources</b>		
<b>No formal risk assessment process exists.</b>	Management should develop a risk assessment process to be completed in conjunction with the annual objective-setting process.	Review of risk is ongoing – currently operating with only two analysts due to budget reductions, have several other staff now cross-trained to back up the employment group. KPI's are monitored monthly and have been met consistently over the last 12-month period.
<b>2013 E-ADVICE — Information Technology</b>		
<b>Identify all vendors with City security-sensitive data. Obtain SOC reports to evaluate data controls as part of the bidding/quote process. Subsequently monitor vendor data security controls through updated SOC reports.</b>	Statement of Control report policies, proposal guidelines, review and monitoring requirements, roles and responsibilities should be developed to assess and monitor data vendor security risk.	The Vendor Assurance Questionnaire, which was approved by the IT Security Board, has been used with all new vendors who have access to security-sensitive data. Examples include Qualtrax, CHOPS and the University of Oklahoma (all of whom provide systems either in use or being evaluated by TPD).
<b>2013 IT INFRASTRUCTURE - COBIT — Information Technology</b>		
<b>The City does not have an enterprise data dictionary.</b>	(1) Compile existing data dictionaries from application design documentation and system interface documentation to form the initial enterprise data dictionary. (2) Update the enterprise data dictionary to incorporate the results of the data classification effort per recommendations pertaining to control objective PO 2.3.	This is a very labor-intensive (and thus ongoing) process. The manager over the BI group has incorporated into his section's PPR's both creating data dictionaries for all existing sets and identifying appropriate dictionaries during new projects.
<b>The City's IT control environment lacks critical policy, procedure and guideline documentation. The City relies heavily on the knowledge and dedication of an experienced IT staff.</b>	Develop a system access provisioning and monitoring policy; an information security policy; a policy that restricts developer access to production environments; and a policy to govern system and database administration.	We have developed policies for information security and governance of system and database administration. Appropriate internal controls exist to limit developer access unless an agreed upon initiative is approved through the IT Department's change management process.
<b>The City's IT department does not have documented policies, procedures or guidelines for capacity management and monitoring.</b>	Develop and implement a procedure to monitor capacity and utilization of key network and system resources.	The tool to monitor network capacity has been implemented.

<b>FINDING</b>	<b>RECOMMENDATION</b>	<b>STATUS DETAIL</b>
<b>The City does not have development and test environments to support effective and efficient feasibility and integration testing of infrastructure components.</b>	The City should establish technology infrastructure development and test environments.	Development and test environments exist where necessary and appropriate.
<b>Change Management Policy</b>	Develop and implement a procedure to review Active Directory and VPN User accounts. Develop and implement a procedure to monitor capacity and utilization of key network and system resources.	Stale user and computer account policies have been developed and implemented.
<b>2013 MANAGE THIRD-PARTY SERVICES – Information Technology</b>		
<b>Aspects of monitoring cloud infrastructure and security, including policies, procedures, personnel roles, contract standard terms and possible compliance impacts have not yet been developed.</b>	IT continues to consider cloud-based data service vendor control and security issues while developing the third-party vendor management process.	IT evaluates multiple hosting options in the procurement of technology. When a vendor recommends a “cloud” option, the City’s IT Security Board requires the completion of a Vendor Assurance Questionnaire, which is used to assess risk.
<b>2013 LONG-TERM DEBT MANAGEMENT — Finance</b>		
<b>Current written debt policy issued in 1999 needs updating for current practices and changes in laws and regulations</b>	City’s written debt policy should be periodically reviewed, updated, and approved by management	The City of Tulsa’s Debt Policy, as outlined in the annual CAFR, though not changed is presented to the Council and is approved by the Council as part of the Annual Budget and Capital Plan. Treasury/Finance presented this as part of the 2014/2015 Annual Budget and Capital Plan and will do so each year.
<b>2013 NEW HIRES, PROMOTIONS &amp; TERMINATIONS — Human Resources</b>		
<b>Employee network level access change procedures were not consistently used.</b>	Create user friendly access change procedures to encourage consistent use. Monitor access change.	IT set up a standardized profile for all employee accesses and has been modeling that. HR will conduct a status checks.
<b>Employee application level access change procedures are not consistently occurring upon employee transfer, promotion and termination.</b>	Create user friendly access change procedures to encourage consistent use. Monitor access change.	IT sets up a standardized profile for all employee accesses and has been modeling that. HR will conduct a status checks.

## **OPEN RECOMMENDATIONS**

The table below summarizes **open** recommendations according to management's responses to the status update inquiry forms as of June 30, 2014.

<b>FINDING</b>	<b>RECOMMENDATION</b>	<b>STATUS DETAIL</b>
<b>2006 SOFTWARE LICENSES — Information Technology</b>		
<b>Citywide policy on software usage is incomplete.</b>	A comprehensive policy articulating software usage for the City of Tulsa should be written with input from all interested parties. The policy should cover all aspects of software compliance	The policy in question is a City-wide policy and therefore requires involvement from more than just IT. ITD will provide these recommendations to Human Resources and City Legal for review.
<b>2009 EXPENDITURE ANALYSIS — Finance</b>		
<b>Access all spend data sources.</b>	Automated extraction routines should be established to aggregate and update spend data from multiple sources on a regular basis.	This recommendation will be implemented with the new ERP system. Implementation target date 6/30/17.
<b>Adopt a common transaction coding classification method Citywide.</b>	All spend transactions should be coded using a consistent and useful classification method.	This recommendation will be implemented with the new ERP system. Implementation target date 06/30/17.
<b>Establish efficient and repeatable data cleansing (accuracy checking).</b>	Management should decide whether to cleanse data going forward or to also cleanse historical data going back for a specified period.	This recommendation will be implemented with the new ERP system. Implementation target date 6/30/17.
<b>Provide information to empower buyers to become commodity managers.</b>	The City's buyers should be further developed into commodity managers who are responsible for all spending in their commodity category. These buyers should monitor spend behavior and ensure classification accuracy.	This recommendation will be implemented with the new ERP system. Implementation target date 6/30/17.
<b>Classify spending at a detailed level.</b>	The City should set goals each year to increase the percentage of spend classified at a detailed level. A high percentage of spend classified at a detailed level will enable the City to establish optimal purchasing strategies based on timely and accurate intelligence.	This recommendation will be implemented with the new ERP system. Implementation target date 6/30/17.
<b>Enhance core spend data with management information (business intelligence).</b>	Management should consider initiating a spend data management program that will summarize spending trends and allow drill down from high-level summaries into individual transaction detail.	This recommendation will be implemented with the new ERP system. Implementation target date 6/30/17.



FINDING	RECOMMENDATION	STATUS DETAIL
<b>2012 IT RISK ASSESSMENT — Information Technology</b>		
<p><b>The City has not defined role-based system access requirements. User access is defined on a case-by-case basis. Policies and possibly processes do not address employee transfers and access provisioning and termination for contractors.</b></p>	<p>Develop policy and process for defining and managing access to systems. Compare these required levels of access with actual system access. Change access to address any discrepancies. Manage access provisioning and termination to reflect employee and contractor hiring, transfers and terminations data.</p>	<p>Other projects, namely Kronos and the Criminal Justice Information Systems (CJIS) compliance have been a higher priority. A modified completion date for this project would need to be discussed with the IT Projects Governance Board, as expending effort on it would require a change in priority for other projects.</p>
<p><b>The IT control environment lacks critical policy, procedure and guideline documentation. A formal Business Continuity Plan (BRP) does not exist.</b></p>	<p>Business and IT Management should perform a business impact analysis and develop a disaster recovery plan and a business continuity plan.</p>	<p>At the end of FY14, the IT Department had responsibly managed our budget and thus had funds available for a comprehensive BC/DR assessment (as well as other plans to mitigate City-wide risk on mission critical systems). Unfortunately, it was required that we transfer this money to cover overages in other departments. Thus we did not have the funds to effectively address the risk associated with this finding. IT remains supportive of a comprehensive BC/DR plan conforming to NFPA 1600, however the City must make a commitment to evaluating and funding it.</p>
<p><b>IT projects have high visibility. Their success or failure reflects greatly on the capabilities of the IT department. Based on vacant positions at the time of this assessment, the PMO is understaffed which raises a concern over the group's ability to manage the projects that are currently active.</b></p>	<p><b>(1)</b> Upgrade the tools used by the IT department to provide better management and communication of IT projects. <b>(2)</b> Implement a system that can support all of the work processes within the IT department.</p>	<p>At the end of FY14, the IT Department had responsibly managed our budget and thus had funds available for training. Unfortunately, it was required that we transfer this money to cover overages in other departments. Thus we did not have the funds to provide for training of project managers or improved tools for their use. The IT Department remains supportive of our PMO and views it as a particularly critical group given the number, scope and criticality of many of the City's current initiatives. We standby ready to implement this recommendation when funding is available.</p>
<p><b>A comprehensive review and update of IT controls has not been performed. However, the Internal Audit Department plans to conduct an IT General Controls Audit in 2012-13.</b></p>	<p>Refer to recommendations to other items in this assessment that pertain to the development and implementation of various policies and procedures.</p>	<p>Internal Audit deferred a General Controls review at this time and no response was required from IT. IA will send a status update inquiry form next year.</p>
<p><b>Financial system segregation of duties are defined by the City's Finance Dept. Segregation of duties outside of the finance systems is not defined, and therefore not documented.</b></p>	<p><b>(1)</b> Business representatives should identify additional segregation duty requirements. <b>(2)</b> The City should develop procedures to manage system access restrictions that support defined segregation of duties requirements.</p>	<p>Financial system procurement has begun but implementation will not take place for several years.</p>

FINDING	RECOMMENDATION	STATUS DETAIL
<b>2013 IT INFRASTRUCTURE – COBIT — Information Technology</b>		
PO2.3 - The City has not developed a classification scheme.	(1) Develop a classification scheme. (2) Classify the City's data per the classification scheme.	This has been partially completed. An estimated completion date is not available.
<b>2013 MANAGE THIRD PARTY — Information Technology</b>		
An Information Technology Security Board (ITSB) including ITD, Security and Purchasing personnel is developing processes, policies, activities, communication plans, roles and responsibilities.	We recommend ITD management continue efforts to develop a vendor monitoring and measurement process, and that these efforts receive priority attention. We recommend more formalized project management be implemented to ensure vendor management development progress. This will clarify and monitor the project's scope, charter, completion timelines, tasks and resource expectations.	We have created a SharePoint site which will facilitate sharing of all department vendor information. All vendors' data has been entered. Vendors are being rated on performance in a variety of areas. COBIT compliant processes are being used in the evaluation. Manager feedback on vendors for their particular workgroups will be available by mid-September, at which point IT will consider this process closed for our department. However, we have also provided our process to Purchasing and the Management Review Office who is evaluating the application of this tool City-wide.
<b>2013 NEW HIRES, PROMOTIONS &amp; TERMINATIONS — HR</b>		
HRs' personnel access to INFOR system cannot be monitored using existing tools.	Establish monitoring tools to ensure only authorized personnel access the HR INFOR system	Continue to work with IT on a resolution to this issue.

## **NEW RECOMMENDATIONS — 2014**

This table represents twelve (12) **new** recommendations added to the database during FY 2014. A summary of audits that generated these additions follows.

<b>FINDING</b>	<b>RECOMMENDATION</b>	<b>STATUS DETAIL</b>
<b>2013 LONG-TERM DEBT MANAGEMENT — Finance</b>		
<b>Current written debt policy issued in 1999 needs updating for current practices and changes in laws and regulations.</b>	City's written debt policy should be periodically reviewed, updated and approved by management.	Complete per Status Inquiry update Form.
<b>Bond Covenants—Unable to find that Covenant Compliance Report was being used.</b>	Treasury Division assumes responsibility for coordinating & developing procedures to ensure compliance w/indenture requirements.	Complete per report response.
<b>Post-Issuance Compliance</b>	a) Review and obtain management approval for post-issuance compliance policy; b) document evidence of formal adoption and implementation 3) document staff training and dates; d) appoint a point person to semi-annually issue written status or post-issuance compliance requirements to Director of Finance.	Complete per report response.
<b>2013 NEW HIRES, PROMOTIONS AND TERMS — Human Resources</b>		
<b>HR's personnel access to INFOR system cannot be monitored using existing tools.</b>	Establish monitoring tools to ensure only authorized personnel access to the HR INFOR system.	New finding. Follow-up June 2015.
<b>Employee network level access change procedures were not consistently used.</b>	Establish and implement procedures to ensure that employee network level changes are monitored and completed	Complete per Status Inquiry Update Form.
<b>Employee application level access change procedures are not consistently occurring upon employee transfer, promotion &amp; termination.</b>	Establish and implement procedures to ensure that employee application level access changes are completed.	Completed per Status Inquiry Update Form.
<b>2014 FRANCHISE TAX — Finance</b>		
<b>Roles and responsibilities for monitoring and evaluating franchise ordinance provisions and potential agreement changes have not been fully established.</b>	Establish / define roles and responsibilities for periodic assessment of franchise fee levels.	New Finding. Follow-up June 2015.

FINDING	RECOMMENDATION	STATUS DETAIL
<b>Formal roles and responsibilities for monitoring and implementation of ordinance requirements and changes not developed and specified across the City.</b>	Revenue ordinance monitoring and implementation responsibilities to be evaluated and more formally documented.	New Finding. Follow-up June 2015.
<b>Cable/Video CPA verified annual statement of gross operating revenues received.</b>	Assign ordinance monitoring and implementation. Consider requiring other major payors of franchise and/or occupancy fees to fill CPA verified revenue statements.	New finding. Follow-up June 2015.
<b>2014 RIGHT OF WAY TELECOMMUNICATIONS OCCUPANCY FEES — Streets &amp; Stormwater/Finance</b>		
<b>Documentation not available to complete annual 2013 ROW recovery rate and cost per linear foot filing required by Ordinance.</b>	Create guidelines to document rationale, assumptions and data used to calculate ROW recovery rates.	New finding. Follow-up June 2015.
<b>Roles, responsibilities and tasks vested with the ROW administrator cannot be fully performed because of lack of information when organization restructure occurs</b>	Consider formally assigning ROW recovery documentation responsibility and periodic confirmation of costs, allocation and linear footage used in ROW recovery.	New finding. Follow-up June 2015.
<b>ROW ordinance provisions contain references to eliminated departments and personnel.</b>	Update ordinance to reflect current City structure and clarify roles, responsibilities for ROW monitoring and compliance.	New finding. Follow-up June 2015.

## DISTRIBUTION LIST

<b>Mayor</b>
<b>Councilor, District 1</b>
<b>Councilor, District 2</b>
<b>Councilor, District 3</b>
<b>Councilor, District 4</b>
<b>Councilor, District 5</b>
<b>Councilor, District 6</b>
<b>Councilor, District 7</b>
<b>Councilor, District 8</b>
<b>Councilor, District 9</b>
<b>City Auditor</b>
<b>Mayor's Chief of Staff</b>
<b>City Manager</b>
<b>Director of Communication</b>
<b>MRO Director</b>
<b>Council Administrator</b>
<b>Council Secretary</b>
<b>Finance Director</b>
<b>Sr. Admin. Services Officer</b>
<b>Treasury Division</b>
<b>Personnel Director</b>
<b>Director, Streets and Stormwater</b>
<b>External Auditor</b>
<b>Mayor's Audit Committee</b>
<b>Internal Auditing Staff</b>