



**Mecklenburg County  
Department of Internal Audit**

Change Management Audit Follow-Up  
Report 1818

October 26, 2018

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**Internal Audit's Mission** To support key stakeholders in cultivating an environment of accountability, transparency and good governance.

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**Staff Acknowledgements** Deborah Caldwell, CIA, CISA, Auditor-in-Charge

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**MECKLENBURG COUNTY**  
**Department of Internal Audit**

**To:** Dena Diorio, County Manager

**From:** Joanne Prakapas, Director, Department of Internal Audit

**Date:** October 26, 2018

**Subject:** Change Management Audit Follow-Up Report 1818

The Department of Internal Audit completed a follow-up audit on reported issues from the Change Management Audit Report 1552 issued February 26, 2016. The follow-up audit objective was to determine with reasonable but not absolute assurance whether management took effective corrective action on the issues presented in the audit report.

Internal Audit staff interviewed key personnel; observed operations; reviewed written policies, procedures, and other documents; and tested specific transactions where applicable. Internal Audit conducted this audit in conformance with The Institute of Internal Auditor's International Standards for the Professional Practice of Internal Auditing.

**FOLLOW-UP SUMMARY**

There were 10 recommendations in the Change Management Audit Report 1552. The following table provides the original number of recommendations and summarizes the follow-up audit results performed to date.

<b>Fiscal Year</b>	<b>Audit Report</b>	<b>Implemented</b>	<b>Open</b>	<b>Not Implemented<sup>1</sup></b>	<b>Withdrawn</b>	<b>Total Carryforward</b>
2016	1552 <sup>2</sup>	N/A				10
2018	1818		10			10

<sup>1</sup> Management assuming risk for not taking corrective action

<sup>2</sup> Initial report

The attached **Follow-Up Results** matrix provides details for the most recent follow-up audit. Internal Audit will review any carryforward issues later to verify recommendations are fully implemented and working as intended.

The cooperation and assistance of the Information Technology Services staff are recognized and appreciated.

- c: Deputy County Manager/Chief of Staff
- Assistant County Managers
- Deputy County Attorney
- Senior County Attorney
- Board of County Commissioners
- Audit Review Committee
- Chief Information Officer, Information Technology Services

**Follow-Up Results**  
**Change Management Audit Report 1552**

- **Implemented** – Audit issue has been adequately addressed by implementing the original or alternative corrective action plan (**I**)
- **Open** – Corrective action for audit issue initiated but not completed (**P**); Implemented but not operating as intended (**IO**); Not been addressed but management fully intends to address issue (**O**)
- **Not Implemented** – Audit issue not addressed and management has assumed the risk of not taking corrective action (**NI**)
- **Withdrawn** – Audit issue no longer exist due to operational changes (**W**)

				Implementation Status	
Risk Observation	Recommendation	Management's Risk Mitigation Strategy	Original Implementation Date	Current Status	Comments
1.1	<p>Internal Audit recommends management update its Change Management Standard Operating Procedures to incorporate relevant details regarding:</p> <ul style="list-style-type: none"> <li>• Segregation of duties for all IT staff involved in the change management process</li> <li>• Guidance and criteria for risk assessment and impact analysis, including security, capacity, and performance implications</li> <li>• Roles and responsibilities of business users and all IT staff in the areas of change submission, building, testing, and implementation</li> <li>• Performance analysis metrics and management reporting data</li> <li>• The relationship of change management with other key IT business processes, such as system development life cycle activities and incident, configuration, and release management</li> <li>• Change management workflow phases that manage change design, development, testing and implementation, phase</li> </ul>	<p>The Change Management SOP (Standard Operating Procedure) is based on Cisco Change Management and ITIL Service Management and will be updated to reflect the necessary changes by the end of Q2 FY16. However, some of the recommendations had already been implemented prior to the report coming out. The performance analysis metrics and management reporting data are a function of the Cherwell system itself and hopefully will be addressed when the system is enhanced, sometime in Q3 or Q4 FY16.</p>	06/2016	P	Since the completion of audit fieldwork, management indicated the risk mitigation strategy has been implemented and is pending Internal Audit's review.

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Risk Observation	Recommendation	Management's Risk Mitigation Strategy	Original Implementation Date	Current Status	Comments
	deliverables, and related documentation retention requirements <ul style="list-style-type: none"> <li>• Change management monitoring and audit requirements</li> </ul>				
2.1	Internal Audit recommends management conduct independent post-implementation reviews of changes implemented into the production environment. Any issues identified in the review should be documented and reported on the extent to which: <ul style="list-style-type: none"> <li>• Business requirements were met</li> <li>• Internal and external stakeholders' expectations were met</li> <li>• Unexpected impacts on the organization occurred</li> <li>• Key risks were mitigated</li> <li>• Change Management processes were preformed effectively and efficiently</li> </ul>	A post-implementation review is being addressed in the beginning of Q2 FY16.	12/2015	P (3)	Since the completion of audit fieldwork, management indicated the risk mitigation strategy has been implemented and is pending Internal Audit's review.
2.2	Internal Audit recommends management define and establish key change management metrics, such as number of changes by category, number of successful/failed changes as	Some of the recommended reports are already available within the ITSM system and KPI's will be discussed for approval in Q2 FY16.	12/2015	P	Since the completion of audit fieldwork, management indicated the risk mitigation strategy has been implemented and is pending Internal Audit's review.

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	percentage of actual changes made, and percentage of time spend on unplanned work.				
2.3	Internal Audit recommends management routinely reconcile authorized changes against implemented changes and investigate any variance. The reconciliations should be documented, independently reviewed, and retained for future reference.	Currently, there is no automated mechanism to formally and adequately detect unauthorized changes. Discussions to purchase hardware and/or software to detect unauthorized change will occur in Q4 FY16.	06/2016	P (2)	Since the completion of audit fieldwork, management indicated the risk mitigation strategy has been implemented and is pending Internal Audit's review.
3.1	Internal Audit recommends management appropriately segregate the duties for development, modification, and migration of configuration items into the production environment. If that is not possible, management should implement appropriate compensating controls	This is not a function of the Change Manager but segregation of duties within the programming department has been implemented and, with the addition of the Quality Assurance (QA) group (newly created group), this will be slowly rolled out as the team is built. A limited set of applications are being addressed starting in Q1 FY16 and increasing as the QA group is built out.	09/2015	P	Since the completion of audit fieldwork, management indicated the risk mitigation strategy has been implemented and is pending Internal Audit's review.
4.1	Internal Audit recommends management ensure changes recorded in Cherwell comply with Change Management Standard Operating Procedures.	The SOP will be updated with the recommendation to have effective and enforced consequences for not following proper Change Control procedures. This will be documented in Q2 FY16	12/2015	P	Since the completion of audit fieldwork, management indicated the risk mitigation strategy has been implemented and is pending Internal Audit's review.
4.2	Internal Audit recommends management ensure all change management testing activities are	The SOP will be updated with the recommendation to have effective and enforced consequences for not following	09/2015	P	Since the completion of audit fieldwork, management indicated the risk mitigation strategy has been implemented and is pending Internal Audit's review.

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Risk Observation	Recommendation	Management's Risk Mitigation Strategy	Original Implementation Date	Current Status	Comments
	documented and retained.	proper Change Control procedures. This will be documented in Q2 FY16			