



STATE OF MICHIGAN

DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET
LANSING

RICK SNYDER
GOVERNOR

DAVID L. DEVRIES
DIRECTOR

July 20, 2018

Rick Lowe, Director
Office of Internal Audit Services
State Budget Office
George W. Romney Building
111 South Capitol, 6th Floor
Lansing, Michigan 48913

Dear Mr. Lowe:

In accordance with the State of Michigan, Financial Management Guide, Part VII, attached is a summary table identifying our responses and corrective action plans to address recommendations contained within the Office of the Auditor General's audit report of the Department of Technology, Management and Budget, Statewide Change Management Controls.

Questions regarding the summary table or corrective action plans should be directed to me.

Sincerely,
Signature Redacted

Michaél Gilliland, Director
DTMB-Financial Services

c: Representative Laura Cox, Chair, House Appropriations
Senator Dave Hildenbrand, Chair, Senate Appropriations
Mark Freeman, Office of the Auditor General
Dick Posthumus, Executive Office
Darin Ackerman, Executive Office
House Fiscal Agency
Senate Fiscal Agency
Brom Stibitz, DTMB
Tiziana Galeazzi, DTMB
Caleb Buhs, DTMB
✓John Juarez, SBO
Phillip Jeffery, DTMB
Kerri DeBano, DTMB
Mike Williams, SBO

Department of Technology, Management and Budget
DTMB's preliminary agency responses to the
Statewide Change Management Controls audit

Summary of Agency Responses to Recommendations

1. Audit Findings that the agency agrees with and has complied with: 3, 4, 5, 6, 7
2. Audit Findings that the agency agrees with and will comply with: 1, 2
3. Audit Findings that the agency disagrees with: None

Agency Responses to Recommendations

1. Policies, standards, and procedures need enhancement.

DTMB agrees with the recommendation. Prior to the start of the audit, DTMB initiated the Material Internal Control Weakness Remediation and Accountability Program (MICWRAP) to help the State ensure departments had and followed established effective change management control processes to address enterprise risks, resolve known material IT and/or reportable IT internal control weaknesses, and establish processes and measurement to reduce and/or eliminate unknown and potential similar weaknesses. MICWRAP has assisted DTMB in establishing clear and comprehensive change management policies, standards, and procedures that align with COBIT, NIST and ITIL guidelines. DTMB implemented the following standards, procedures, and guidelines on April 1, 2017: In addition, DTMB created the State's "Enterprise application and database, change and release transition management standard", and the State's "Enterprise application and database, change and release transition management procedure." These documents clearly identify artifacts that need to be documented and maintained. DTMB has defined roles and responsibilities in the "Enterprise application and database, change and release transition management standard". DTMB has outlined appropriate segregation of duties in the "Enterprise application and database, change and release transition management standard". DTMB is in the process of implement enterprise monitoring processes in a joint effort between DTMB's Change Management Center of Excellence (CMCoE) and the State Unified Information Technology Environment (SUITE) team. The CMCoE has developed a proposed monitoring procedure which will be rolled out by the SUITE team. A monitoring based-line is currently underway. DTMB will be in full compliance with this finding by March 31, 2019.

2. Monitoring controls need improvement.

DTMB agrees with the recommendation. Prior to the start of the audit, DTMB initiated the Material Internal Control Weakness Remediation and Accountability Program (MICWRAP) to help the State ensure departments had and followed effective change management control processes which include the following: DTMB has established the Change Management Center of Excellence (CMCoE) and change management monitoring processes to ensure that risks are identified, policies, standards and procedures are adhered to, and corrective action taken on non-compliance. The CMCoE develops and communicates performance criteria, monitors and reports results to the department's Governance Board. CMCoE's monitoring processes are documented in the "Change management center of excellence procedure". DTMB has defined the configuration management role and documented segregation of duties requirements in the "Enterprise application and database, change and release transition management standard". DTMB is in the process of implement enterprise monitoring processes in a joint effort between DTMB's CMCoE and the State Unified Information Technology Environment (SUITE) team. The CMCoE has developed a proposed monitoring procedure which will be rolled out by the SUITE team. A monitoring based-line is currently underway. DTMB will be in full compliance with this finding by March 31, 2019.

3. Evidence of control activities not consistently documented.

DTMB agrees with and has complied the recommendation. Prior to the start of the audit, DTMB initiated the Material Internal Control Weakness Remediation and Accountability Program (MICWRAP) to help the State ensure departments had and followed effective change management control processes which include the following: DTMB has established policies, standards, and procedures to ensure change management documentation is stored in a central location and kept for the life of the system plus one year. Change management documentation will be maintained in one of the State's standard source tools (e.g. Serena, TFS, JIRA, or Rational), and/or via the State's Unified Information Technology Environment's (SUITE) documents. DTMB implemented these control requirements as of April 1, 2017.

4. QAT not consistently performed.

DTMB agrees with and has complied the recommendation. Prior to the start of the audit, DTMB initiated the Material Internal Control Weakness Remediation and Accountability Program (MICWRAP) to help the State ensure departments had and followed effective change management control processes which include the following: As of April 1, 2017, DTMB implemented the "Enterprise application and database, change and release transition management standard", which provides enterprise guidance on Quality Assurance Testing (QAT) and its requirements. In addition, the

standard includes testing definitions based off types of changes/releases, including required tests for each phase of testing. This State standard, is based on COBIT and NIST guidelines, and will help to ensure consistent performance of QAT activities throughout the state. DTMB implemented these control requirements as of April 1, 2017.

5. Segregation of duties not always enforced.

DTMB agrees with and has complied the recommendation. Prior to the start of the audit, DTMB initiated the Material Internal Control Weakness Remediation and Accountability Program (MICWRAP) to help the State ensure departments had and followed effective change management control processes which include the following: As of April 1, 2017, DTMB implemented the State's "Enterprise application and database, change and release transition management standard", to help ensure segregation of duties throughout the change management lifecycle. The standard requires change management release teams to ensure the following:

- Business owner is required to initiate the change request.
- Business owner prioritizes and Authorizes which changes are to be included in a release.
- Business owner authorizes the change/release.
- Business owner performs/approves UAT completion results.
- Business owner performs validation after production implementation.
- DTMB management authorizes the change to be developed.
- Development tester, QAT tester, or UAT tester must be assigned as an authorized tester and cannot be the assigned DTMB developer
- Developer cannot authorize the change/release (at any phase).
- Developer cannot implement the change/release into any environment higher than development.
- Implementer (DBA / CM / etc.) cannot implement the change/release if they developed the change/release.
- Database administrator cannot implement application changes/releases.
- Configuration manager cannot physically implement database changes/releases (can initiate via a tool).

DTMB implemented these control requirements as of April 1, 2017.

6. Improvements to authorization process needed.

DTMB agrees with and has complied the recommendation. Prior to the start of the audit, DTMB initiated the Material Internal Control Weakness Remediation and Accountability Program (MICWRAP) to help the State ensure departments had and followed effective change management control processes which include the following: As of April 1, 2017, DTMB established the "Enterprise application and database, change and release transition management standard", to ensure the department consistently creates and maintains authorization listings for each phase of the change management process. The standard also includes: requirements on authorization list's documentation and central storage requirements; maintenance requirements for each authorized approver's lists for each phase of the change management lifecycle; source tool requirements; authorization requirements, SUITE documents requirements. DTMB implemented these control requirements as of April 1, 2017.

7. Use of SMMS should be enforced.

DTMB agrees with and has complied the recommendation. Prior to the start of the audit, DTMB initiated the Material Internal Control Weakness Remediation and Accountability Program (MICWRAP) to help the State ensure departments had and followed effective change management control processes which include the following: The department established the State's "Enterprise application and database, change and release transition management standard", and the State's "Enterprise application and database, change and release transition management procedure", to enforce the use the Service Management and Monitoring System (SMMS) and require its use for all production application/database changes. DTMB technical procedure 1340.00.060.04.01 was a pre-existing procedure but has been updated to require that all production application/database changes and all infrastructure environments, excluding sandbox and labs, require a request for change in the SMMS. In addition, DTMB has established a monitoring process to ensure that the SMMS request for change process and procedures are adhered to, and corrective action is taken for non-compliance to the standard. DTMB has established the Change Management Center of Excellence (CMCoE) and change management monitoring processes to ensure that risks are identified, policies, standards and procedures are adhered to, and corrective action taken on non-compliance. The CMCoE develops and communicates performance criteria, monitors and reports results to the department's Governance Board. CMCoE's monitoring processes are documented in the "Change management center of excellence procedure". DTMB implemented these control requirements as of April 1, 2017.