IA #01-2025 Disaster Recovery and Business Continuity Planning Advisory Audit Report September 19, 2025



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Commissioners of the Texas Department of Licensing and Regulation 902 Colorado Street Austin, TX 78701

This report presents the results of the internal audit procedures performed for the Texas Department of Licensing and Regulation (TDLR or 'the agency') during the period November 2024, through August 2025, relating to the Disaster Recovery and Business Continuity Plans (DR/BC plans) developed by TDLR.

The objective of the audit procedures was to evaluate the design and effectiveness of the TDLR's DR/BC planning preparation for emergency situations. The objective was as follows:

Determine if TDLR's DR/BC planning documentation includes the elements expected by the Texas
Department of Information Resources, NIST 800-34r1 Contingency Planning Guide, the State Office
of Risk Management and the Texas Continuity Template.

To accomplish this objective, we conducted interviews with TDLR personnel responsible for the disaster recovery and business continuity functions and examined existing documentation to gain an understanding of current DR/BC planning processes and procedures. We evaluated the existing policies, procedures, and processes in their current state.

The following report summarizes the results of our procedures, our recommendations for improvement and TDLR management responses.

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WEAVER AND TIDWELL, L.L.P.

Austin, Texas September 19, 2025

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Background

Texas Department of Licensing and Regulation (TDLR or the Agency) is the state agency responsible for licensing and regulating a broad range of occupations, businesses, facilities, and equipment. The Agency's mission statement is to earn the trust of Texans every day by providing innovative regulatory solutions for their licensees and those they serve.

The TDLR has developed DR/BC plans through a Continuity of Operations Plan (COOP) to prepare for and respond to disruptive events. A disruptive event is recognized as causing an entity's information and communications systems to be inaccessible or disabled and inhibiting business operations. In some instances, a disruptive event may be dangerous or even life-threatening to staff.

- <u>Disaster Recovery (DR)</u> planning includes an entity's actions in preparing for, responding to and resolving a critically disruptive event. The focus of a DR plan is the recovery of an entity's IT systems, applications and data when a disruptive event occurs.
- <u>Business Continuity (BC)</u> planning embodies a more holistic approach concerning the continuity of an
 entity's operations according to established contingency measures taken to address pre-determined
 thresholds. Disaster recovery is considered a component of business continuity planning. While a DR plan
 is focused on the recovery of IT systems and data, the BC plan focuses on restoring and resuming operations
 for the entity as a whole.

The COOP for TDLR was initially issued in October of 2017 and was last updated in April of 2020. TDLR drafted the COOP based on authoritative guidance from the Department of Homeland Security and FEMA. Specifically, the materials used were:

- Directive 51/Homeland Security Presidential Directive 20, National Continuity Policy, dated May 9, 2007
- Continuity Guidance Circular 1 (CGC1) Continuity Guidance for Non-Federal Governments (States, Territories, Tribes, and Local Government Jurisdictions), dated July 2013
- Continuity Guidance Circular 2 (CGC 2), Continuity Guidance for Non-Federal Governments: Mission Essential Functions Identification Process (States, Territories, Tribes, and Local Government Jurisdictions), dated September 2013
- FEMA COOP Template.

In addition to the COOP plan, TDLR also has document titled DIR Shared Technology Services (STS) Disaster Recovery Plan. This plan was initially drafted in 2012 and has been updated multiple times. The current version is version 15.01 and was last updated in 2024. The STS Disaster Recovery plan is a detailed document that supports the COOP for the recovery and continued operations of TDLR's IT environment.

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The Texas State Office of Risk Management also published continuity of operations guidance in 2013 and published subsequent updates in 2022. As a basis for our evaluation, we utilized the following documents as authoritative guidance for the audit.

Author	Standard	Description
State Office of Risk Management (SORM)	Texas Continuity Template and Toolbox	Provides a blueprint for the structure and content of agency DR/BC plans.
Texas Department of Information Resources (DIR)	Security Control Standards Catalog	Specifies the minimum information security requirements that state organizations must use to provide the appropriate levels of information security according to risk levels.

Additionally, the National Institute of Standards and Technology (NIST) Special Publication 800-34, Revision 1, *Contingency Planning Guide for Federal Information Systems* was utilized as an authoritative source for instructions, recommendations and considerations when evaluating TDLR's DR/BC planning documents.

Audit Scope & Objectives

This internal audit focused on TDLR's Disaster Recovery and Business Continuity (DR/BC) planning documents. We reviewed the processes and procedures outlined in these documents for compliance with authoritative guidance for Texas state agencies and appropriate risk management coverage. Our scope included an evaluation of the processes and procedures that cover the activities in the following key areas:

Disaster Recovery Activities:

- Disaster Recovery Plan and Procedures
- IT Backup and Recovery Systems
- IT Hardware Recovery
- Data Recovery
- Disaster Recovery Testing

Business Continuity Planning Activities:

- Business Resumption Plan and Procedures
- Scenario Determination and Criticality
- Business Impact Analysis
- Business Resumption
- Continuity Plan Testing

Our procedures were designed to evaluate TDLR's DR/BC plans and provide recommendations for improving the plans and enhancing risk management processes, in alignment with regulatory standards and authoritative best practices guidance.

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The objective of the audit procedures was to determine if TDLR's DR/BC planning documentation includes the elements expected by the Texas Department of Information Resources, NIST 800-34r1 Contingency Planning Guide, the State Office of Risk Management and the Texas Continuity Template.

Our procedures included interviews with TDLR personnel responsible for the disaster recovery and business continuity functions and examination of existing documentation to gain an understanding of current DR/BC planning processes and procedures. We evaluated the processes and procedures outlined in the COOP and STS Disaster Recovery documentation in their current state.

Executive Summary

As part of our evaluation, we mapped the DR/BC planning criteria required by the State Office of Risk Management (SORM) and the Texas Department of Information Resources (DIR), as well as the guidance provided by the National Institute of Standards and Technology (NIST) to the DR/BC planning procedures and processes outlined in TDLR's COOP and STS Disaster Recovery plans:

Through our procedures, we identified 12 separate recommendations to improve the documentation for DR/BC planning. These recommendations include the addition of information where we identified gaps in information and the expanding of current information to increase the clarity of the information already included in the documentation.

The recommendations identified are intended to assist TDLR in strengthening the existing procedures and processes used to respond to a disruptive event and further mitigate potential financial, operational and regulatory risks when responding to such an event. A summary of our results is provided below:

Strong

Scope Area	Result	Rating
Objective: Determine if TDLR's DR/BC planning documentation includes the elements expected by the Texas Department of Information Resources, NIST 800-34r1 Contingency Planning Guide, the State Office of Risk Management and the Texas Continuity Template.	TDLR's draft DR/BC planning documents are generally consistent with required and authoritative best practice criteria. Of the 121 separate required and best practice criteria elements that should be included in the DR/BC planning documents, we identified 12 recommendations to improve and better align TDLR's planned processes and procedures with these elements. These recommendations include: • 9 to augment or revise information related to required criteria • 3 to improve general clarity and better align the planning documents	Strong

Overall Assessment

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Conclusion

Based on our evaluation, TDLR has adequate DR/BC planning documents that incorporate a significant portion of the criteria defined by the State Office of Risk Management and the Texas Department of Information Resources. However, we identified opportunities to augment and clarify the information in the documentation to improve compliance with regulatory criteria and the risk management posture of the agency.

Management should review and evaluate the proposed edits to strengthen the DR/BC planning documents. Once the modifications have been adopted and the agency's DR/BC plans are finalized, we recommend that Management develop a plan and schedule for testing the DR/BC plans processes and procedures.

Detailed Procedures P Recommendations and M	-

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Objective A: DR/BC Planning Evaluation

Determine if TDLR's COOP (DR/BC plan) includes the elements expected by the Texas Department of Information Resources, NIST 800-34r1 Contingency Planning Guide, the State Office of Risk Management and the Texas Continuity Template.

Procedure Performed:

We obtained and compared TDLR's COOP and STS Disaster Recovery Plan documents against a criteria matrix that included both required and authoritative criteria element to identify any gaps in the agency's DR/BPC planning. We compared the COOP against the following:

- 1. State Office of Risk Management (SORM) Texas Continuity Template and Toolbox.
- 2. Texas Department of Information Resources (DIR) Security Control Standards Catalog.
- 3. National Institute of Standards and Technology (NIST) Special Publication (SP) 800-34, Revision 1, Contingency Planning Guide for Federal Information Systems.

Results:

We identified 12 opportunities to improve TDLR's DR/BC planning documents with relation to the 121 required and authoritative best practice criteria throughout various DR/BC planning components.

DR/BC Component	Total	Improvement Opportunity		Nature of Improvement Opportunity	
	Criteria	Count	Туре	Content Addition	Content Revision
Incident Evaluation	31	3	R	2	1
		1	OA	-	1
Incident Management	20	3	R	2	1
	30	2	OA	2	-
Disaster Recovery	27	-	R	-	1
	37	1	OA	1	-
Business Resumption	23	-	R	-	-
		2	OA	2	-
Total	121	1	12	9	3

R - Required elements by SORM or DIR

OA – Other authoritative guidance

The recommendations include proposed edits to specific information within the DR/BC planning documentation that augments existing content, revisions to content for clarity, and updates to references to other documents among the suite of DR/BC planning documents intended to reduce the effort by TDLR personnel to maintain and keep the documentation up-to-date and relevant.

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Incident Evaluation

Finding 1 – Moderate – Business Impact Analysis: The DR/BC planning documentation for TDLR does not include a business impact analysis for the significant applications and functions for the agency. While there are listings of the applications in both the COOP and the STS Disaster Recovery documents, there is not an analysis included in the documentation that documents the impact to the agency and its functions if one of these applications were to be lost in an emergency scenario.

Recommendation: For each critical application and system, management should document in the COOP the impact to the agency if a loss were to occur.

Management's Response: TDLR agrees. We will add the proper documentation to the COOP for each critical agency application and system in our upcoming extensive update to the COOP.

Responsible Party: Facilities and Risk Manager

Implementation Date: April 1, 2026

Finding 2 – Moderate – Dependencies of Key Vendors: The COOP for TDLR does not include a listing of key contracts and/or vendors that the agency relies on for operations. While the STS Disaster Recovery Plan lists key vendors and contacts for IT applications and systems, there is not a corresponding listing for non-IT vendors in the COOP. The COOP does mention that the Finance department has a listing of key vendors and contracts. However, in the event of an event, the listing of key vendors and contracts should be included in the COOP documentation.

Recommendation: Management should include the listing of key vendors, contracts, and contact information for each as an annex in the COOP document. This would allow for easy maintenance of the listing when the COOP documentation is reviewed.

Management's Response: TDLR agrees. We will include the list of key entities in an annex to the COOP as part of our upcoming extensive update to the COOP.

Responsible Party: Facilities and Risk Manager

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Finding 3 – Moderate – Disaster Scenarios: The DR/BC planning documentation for TDLR does not include specific disaster and/or emergency scenarios, and specific responses for those scenarios, that are likely to be applicable to the agency. The COOP includes a reference to a shared drive at TDLR that contains the risk assessment of specific scenarios that are applicable to the agency, however the events are not included in the COOP or STS Disaster Recovery Plans. Additionally, the exact location within the shared drive is not provided, only a reference that they exist on the shared drive.

Recommendation: Management should update the documentation to include these scenarios in an annex to the COOP so that the responses to these events can be referenced if the network shared drive is not available. Additionally, the COOP should be updated to include the exact location of these scenarios on the shared drive so that they can be easily located on the drive in an emergency event.

Management's Response: TDLR agrees. We will update scenario documentation in an annex to the COOP, as well as the documentation's shared-drive location, in our upcoming extensive update to the COOP.

Responsible Party: Facilities and Risk Manager

Implementation Date: April 1, 2026

Finding 4 – Low – Shared Drive References: The DR/BC planning documentation for TDLR includes references to documents and other information including, but not limited to: risk assessments, essential records inventory, infrastructure details, systems configurations, site preparation plans, and communications systems. These references indicate that the detailed information for these items is stored on a network shared drive. However, the specific locations for this information are not provided.

Recommendation: Management should update the documentation to include this information in annex(es) to the COOP so that key continuity information can be referenced if the network shared drive is not available. Additionally, the COOP should be updated to include the exact location of these scenarios on the shared drive so that they can be easily located on the drive in an emergency event.

Management's Response: TDLR agrees. In our upcoming extensive update to the COOP, we will include the location of key continuity scenario information on the agency's shared network drive for easy location in an emergency event, and the location of that information should the drive be unavailable.

Responsible Party: Facilities and Risk Manager

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Incident Management

Finding 5 – Low – First aid Trained Staff: The COOP does not include a listing of TDLR staff who have been trained in activities such as first aid and the use of AED defibrillators in the event that agency personnel require immediate medical attention in a disaster event.

Recommendation: Management should update the COOP to include the information for first aid trained personnel in an annex to the COOP.

Management's Response: TDLR agrees. In our upcoming extensive update to the COOP, we will include those individuals in the agency is trained in first aid

Responsible Party: Facilities and Risk Manager

Implementation Date: April 1, 2026

Finding 6 – Low – External Communications: The COOP document does not include guidance, scripts or protocols to ensure approved messages are communicated to external stakeholders outside of the agency. The COOP has specific guidance and scripts for communication to agency personnel, however protocols for communications outside of TDLR are not documented. These protocols are established for disaster recovery in the STS Disaster Recovery Plan, specifically for IT related communications.

Recommendation: Management should update the COOP to provide protocols to ensure approved communications are made with stakeholders outside of the agency. These protocols should include individuals or positions that are authorized to provide official statements to stakeholders who are external to the agency. Additionally, management should consider including the procedures to approve the contents of the communications prior to their dissemination.

Management's Response: TDLR agrees. We will include the recommended protocols for communications with external stakeholders, and procedures to approve the contents of those communications, in our upcoming extensive update to the COOP.

Responsible Party: Facilities and Risk Manager

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Finding 7 – Low – Root Cause Reporting: Requirements or procedures to identify, determine, and communicate the root cause of IT emergencies to management. While there are many steps in the STS Disaster Recovery Plan that include communications of status to agency management, there is no specific requirement for root cause analysis. While this is somewhat inherent in disaster recovery activities, the DR/BCP documents to not explicitly require this step.

Recommendation: Management should consider updating the COOP and/or STS Disaster Recovery Plan to include requirements to communicate the root cause of any IT specific emergency event. These causes could include, but not limited to, virus infection, ransomware, failed hardware, or lost connectivity. At a minimum, the root cause should be identified and reported in an after-action review.

Management's Response: TDLR agrees. We will update both the COOP and the STS Disaster Recovery Plan to include requirements to communicate the root cause of any IT specific emergency event.

Responsible Party: Facilities and Risk Manager

Implementation Date: April 1, 2026

Finding 8 – Moderate – Training and Testing: Training and testing is not performed in accordance with the timelines established in the requirements in the COOP document. The COOP document includes requirements for completing training, testing and exercises to support the agency's preparedness in the event of an emergency. These trainings, testing and exercises include the review and update of the COOP documents, at least annually. However, the COOP has not been updated since 2020 and includes outdated information such as personnel and contact information that is incorrect. The STS Disaster Recovery Plan is updated frequently, but there is no evidence that the plan is reviewed by the Chief Information Officer, or the Chief information Security Officer.

Additionally, TDLR participates in tabletop disaster recovery exercises with the Texas Department of Information Resources. However, a full backup test is not performed annually.

Recommendation: Management should review and update the COOP to ensure the most recent and correct information is included in the documents. The COOP should also be updated to include annexes with additional information. The COOP and the STS Disaster Recovery Plans should be reviewed and approved by the appropriate level of personnel within the agency.

Additionally, the agency should provide trainings and testing over both the DR and BC plans at the appropriate level of detail, complete with after-action reviews to consider improvements to the plans. These trainings and exercises should take place at least annually.

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Management's Response: TDLR agrees. We will ensure all required and updated information is included in our upcoming extensive update to the COOP and will have the plan reviewed and approved by appropriate personnel. Additionally, we will perform annual testing, training, and improvement reviews over both our Disaster Recovery and Business Continuity plans as required by those plans.

Responsible Party: Facilities and Risk Manager

Implementation Date: April 1, 2026

Finding 9 – Low – Evacuation System Documentation: The current version of the COOP does not provide specific procedures or guidance for when evacuation systems and/or protocols for personnel are to be engaged. While there are considerations for personnel safety and the need for evacuation or sheltering in place, there is not guidance as to when those protocols are to be enacted.

Recommendation: Management should consider updating the COOP to include criteria and/or decision points as to when emergency protocols for the evacuation of personnel are to be enacted by agency personnel.

Management's Response: TDLR agrees. We will include criteria for when emergency protocols for agency personnel evacuation should be enacted in our upcoming extensive update to the COOP.

Responsible Party: Facilities and Risk Manager

Implementation Date: April 1, 2026

Disaster Recovery

Finding 10 – Low – Mail Routing: The current version of the COOP does not provide guidance on when or where to route physical mail if the COOP plan is engaged. The COOP contains information on other communications plans for phone, internet connectivity and email, but does not include physical mail.

Recommendation: Management should consider updating the COOP to include criteria and location information on when and where to route physical mail in the event of an emergency.

Management's Response: TDLR agrees. We will include criteria and location information on when and where to route physical mail in the event of an emergency in our upcoming extensive update to the COOP.

Responsible Party: Facilities and Risk Manager

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Business Resumption

Finding 11 – Low – Resumption of Normal Operations: The current version of the COOP does not include the criteria or specifications of when the declaration of returning to normal operations can and/or will be made. The COOP includes procedures for inspection of facilities and ultimately leaves the final decision of returning to primary operating facilities and resuming normal operations up to the Executive Director. However, there is no defined criteria in the COOP of what conditions need to be in place before that can occur.

Recommendation: Management should consider updating the COOP to include the minimum criteria necessary to be in place before operations can be resumed at TDLR's primary facilities. Defining these criteria in the COOP will provide the Executive Director, or their delegate, clear and defined conditions for approving the resumption of normal operating activities and returning to the agency's primary locations.

Management's Response: TDLR agrees. We will include the minimum criteria necessary for the resumption of operations at the agency's primary facilities in our upcoming extensive update to the COOP.

Responsible Party: Facilities and Risk Manager

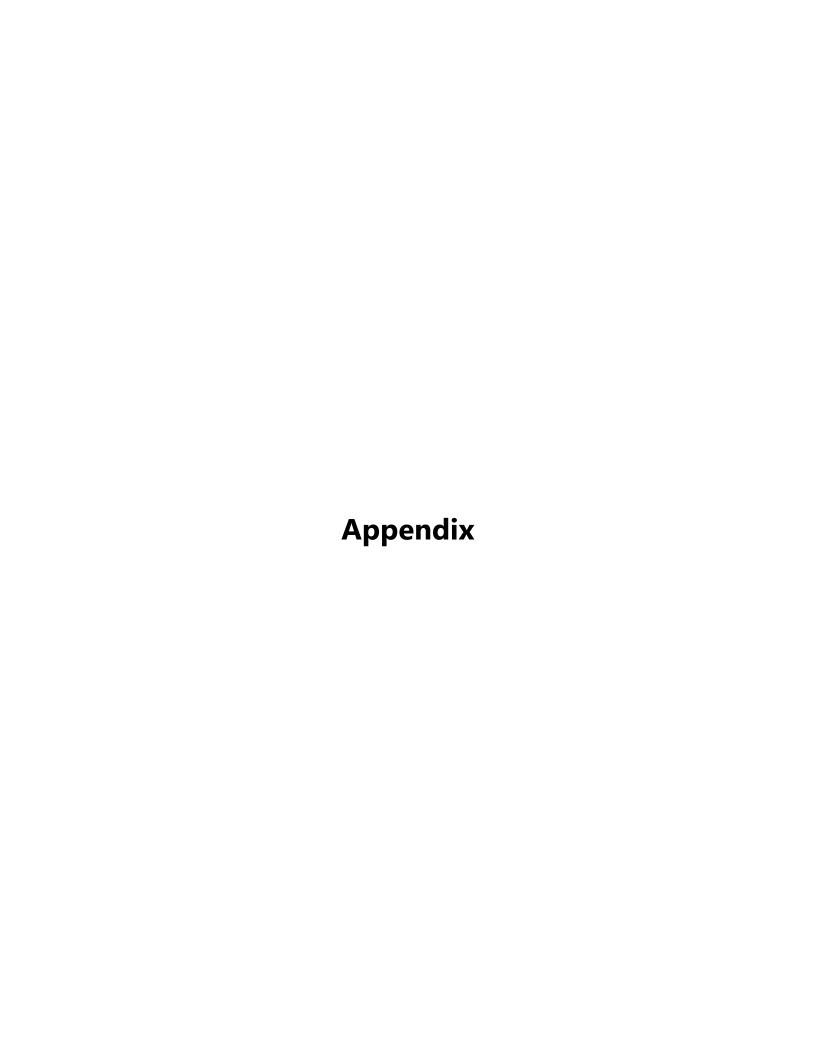
Implementation Date: April 1, 2026

Finding 12 – Low – Close-out of Emergency Purchasing: The Business Resumption section of the COOP does not include procedures to ensure that purchase orders for emergency purchases are closed out and that the expenditures made during and emergency are appropriately reviewed and analyzed. The COOP includes procedures to ensure that purchases can be made in an emergency situation, but there are no procedures included for the review and close out of those emergency purchase orders.

Recommendation: Management should consider updating the COOP to include procedures to ensure that purchase orders opened during an emergency are closed out and that expenditures made during that period are analyzed and appropriate.

Management's Response: TDLR agrees. We will include procedures to close out purchase orders opened in an emergency, and for analyzing those purchases for appropriateness, in our upcoming extensive update to the COOP.

Responsible Party: Facilities and Risk Manager



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The appendix defines the approach and classifications utilized by Internal Audit to assess the residual risk of the area under review, the priority of the findings identified, and the overall assessment of the procedures performed.

Report Ratings

The report rating encompasses the entire scope of the engagement and expresses the aggregate impact of the exceptions identified during our test work on one or more of the following objectives:

- Operating or program objectives and goals conform with those of TDLR
- TDLR objectives and goals are being met
- The activity under review is functioning in a manner which ensures:
 - o Reliability and integrity of financial and operational information
 - o Effectiveness and efficiency of operations and programs
 - Safeguarding of assets
 - o Compliance with laws, regulations, policies, procedures and contracts

The following ratings are used to articulate the overall magnitude of the impact on the established criteria:

Strong

The area under review meets the expected level. No high risk rated findings and only a few moderate or low findings were identified.

Satisfactory

The area under review does not consistently meet the expected level. Several findings were identified and require routine efforts to correct, but do not significantly impair the control environment.

Unsatisfactory

The area under review is weak and frequently falls below expected levels. Numerous findings were identified that require substantial effort to correct.

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Risk Ratings

Residual risk is the risk derived from the environment after considering the mitigating effect of internal controls. The area under audit has been assessed from a residual risk level utilizing the following risk management classification system.

High

High risk findings have qualitative factors that include, but are not limited to:

- Events that threaten TDLR's achievement of strategic objectives or continued existence
- Impact of the finding could be felt outside of TDLR or beyond a single function or department
- Potential material impact to operations or TDLR's finances
- Remediation requires significant involvement from TDLR management

Moderate

Moderate risk findings have qualitative factors that include, but are not limited to:

- Events that could threaten financial or operational objectives of TDLR
- Impact could be felt outside of TDLR or across more than one function of the Agency
- Noticeable and possibly material impact to the operations or finances of TDLR
- Remediation efforts that will require the direct involvement of functional leader(s)
- May require senior TDLR management to be updated

Low

Low risk findings have qualitative factors that include, but are not limited to:

- Events that do not directly threaten TDLR's strategic priorities
- Impact is limited to a single function within the Agency
- Minimal financial or operational impact to TDLR
- Require functional leader(s) to be kept updated, or have other controls that help to mitigate the related risk