



# Evaluation Report



OIG-CA-18-006

INFORMATION TECHNOLOGY: Gulf Coast Ecosystem  
Restoration Council Federal Information Security Modernization  
Act of 2014 Fiscal Year 2017 Evaluation

October 31, 2017

Office of  
Inspector General

Department of the Treasury



OFFICE OF  
INSPECTOR GENERAL

DEPARTMENT OF THE TREASURY  
WASHINGTON, D.C. 20220

October 31, 2017

**MEMORANDUM FOR BEN SCAGGS**

**ACTING EXECUTIVE DIRECTOR**

**FROM:**

Larissa Klimpel /s/  
Director, Cyber/Information Technology Audit

**SUBJECT:**

Evaluation Report – *Gulf Coast Ecosystem Restoration  
Council Federal Information Security Modernization Act of  
2014 Fiscal Year 2017 Evaluation*

We are pleased to transmit the attached report, *Gulf Coast Ecosystem Restoration Council Federal Information Security Modernization Act of 2014 Fiscal Year 2017 Evaluation*, dated October 31, 2017. The Federal Information Security Modernization Act of 2014 (FISMA) requires that Federal agencies have an annual independent evaluation performed of their information security programs and practices to determine the effectiveness of such programs and practices, and to report the results to the Office of Management and Budget (OMB). OMB delegated its responsibility to the Department of Homeland Security (DHS) for the collection of annual FISMA responses. FISMA also requires that the agency Inspector General (IG) or an independent external auditor perform the annual evaluation as determined by the IG.

To meet our FISMA requirements, we contracted with RMA Associates, LLC, (RMA) a certified independent public accounting firm, to perform this year's annual FISMA evaluation of the Gulf Coast Ecosystem Restoration Council's (Council) security program and practices for the period July 1, 2016 through June 30, 2017. RMA conducted its evaluation in accordance with *Council of the Inspectors General on Integrity and Efficiency Quality Standards for Inspection and Evaluation*. In connection with our contract with RMA, we reviewed its report and related documentation and inquired of its representatives. Our review, as differentiated from an evaluation performed in accordance with inspection and evaluation standards, was not intended to enable us to conclude on the effectiveness of the Council's information security program and practices or its compliance with FISMA. RMA is responsible for its report and the conclusions expressed therein.

In brief, RMA reported that consistent with applicable FISMA requirements, OMB policy and guidance, and the National Institute of Standards and Technology standards and guidelines, the Council's information security program and practices

were established and have been maintained for the 5 Cybersecurity Functions and 7 FISMA Metric Domains. However, RMA identified 1 deficiency in the 5 Cybersecurity Functions and the 7 FISMA Metric Domains in that the Council's information security program and practices were formalized and documented but not consistently implemented for the period July 1, 2016 through June 30, 2017. As such, the Council's information security program and practices were not fully effective for the period July 1, 2016 through June 30, 2017. Since the Council has taken corrective action necessary to remediate the deficiency, RMA made no recommendations.

Appendix I of the attached RMA report includes the *FY 2017 Inspector General Federal Information Security Modernization Act of 2014 Reporting Metrics*.

If you have any questions or require further information, you may contact me at (202) 927-0361.

Attachment

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**The Gulf Coast Ecosystem Restoration Council  
Federal Information Security Modernization Act of 2014  
Fiscal Year 2017 Evaluation**

October 31, 2017

The Honorable Eric Thorson  
Inspector General, Department of the Treasury  
1500 Pennsylvania Avenue NW  
Room 4436  
Washington, DC 20220

Re: Gulf Coast Ecosystem Restoration Council Federal Information Security Modernization Act  
of 2014 Fiscal Year 2017 Evaluation

Dear Mr. Thorson:

RMA Associates, LLC is pleased to submit the Gulf Coast Ecosystem Restoration Council (Council) Federal Information Security Modernization Act of 2014 Fiscal Year 2017 Evaluation. We conducted the evaluation in accordance with the Council of the Inspectors General on Integrity and Efficiency Quality Standards for Inspection and Evaluation. We have also prepared the *FY 2017 Inspector General Federal Information Security Modernization Act of 2014 (FISMA) Reporting Metrics* version 1.0 (April 17, 2017) as shown in Appendix I. These metrics provide reporting requirements across the areas to be addressed in the independent assessment of agencies' information security programs. The objective of this evaluation was to evaluate the effectiveness of the Council's information security program and practices for the period July 1, 2016, through June 30, 2017.

In summary, we found that the Council's information security program and practices are formalized and documented but not consistently implemented for the period July 1, 2016 through June 30, 2017. As such, the Council's information security program and practices were not fully effective for the period July 1, 2016 through June 30, 2017.

We very much appreciate the opportunity to serve you and will be pleased to discuss any questions you may have.

Sincerely,

*RMA Associates*

**The Gulf Coast Ecosystem Restoration Council  
Federal Information Security Modernization Act of 2014  
Fiscal Year 2017 Evaluation**

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## INTRODUCTION

This report presents the results of our independent evaluation of the Gulf Coast Ecosystem Restoration Council's (Council) information systems' security program and practices. The *Federal Information Security Modernization Act of 2014* (FISMA) requires Federal agencies to have an annual independent evaluation performed of their information security program and practices to determine the effectiveness of such programs and practices, and to report the results of the evaluations to the Office of Management and Budget (OMB). OMB delegated its responsibility to Department of Homeland Security (DHS) for the collection of annual FISMA responses. DHS prepared the FISMA questionnaire to collect these responses, which is provided in Appendix I: *Fiscal Year (FY) 2017 Inspector General Federal Information Security Modernization Act of 2014 Reporting Metrics*. We also considered applicable OMB policy and guidelines, and the National Institute of Standards and Technology (NIST) standards and guidelines.

FISMA requires that the agency Inspector General (IG) or an independent external auditor, as determined by the IG, perform the annual evaluation. The Department of the Treasury Office of Inspector General (OIG) engaged RMA Associates, LLC, to conduct an evaluation in support of the FISMA requirement for an annual evaluation of the Council's information security program and practices. The objective of this evaluation was to evaluate the effectiveness of the Council's information security program and practices for the period July 1, 2016 through June 30, 2017.

This evaluation was performed in accordance with the Council of the Inspectors General on Integrity and Efficiency Quality Standards for Inspection and Evaluation. We have also prepared the *FY 2017 Inspector General Federal Information Security Modernization Act of 2014 (FISMA) Reporting Metrics* version 1.0 (April 17, 2017) as shown in Appendix I. These metrics provide reporting requirements across the areas to be addressed in the independent assessment of agencies' information security programs. See *Objective, Scope, and Methodology* for more detail.

## SUMMARY OF RESULTS

Consistent with applicable FISMA requirements, OMB policy and guidance, and NIST standards and guidelines, the Council's information security program and practices were established and have been maintained for the 5 Cybersecurity Functions<sup>1</sup> and 7 FISMA Metric Domains.<sup>2</sup> However, for Fiscal Year (FY) 2017, we identified 1 deficiency in the 5 Cybersecurity Functions and the 7 FISMA Metric Domains. Specifically, we found that the Council's information security program and practices were formalized and documented but not consistently implemented for the

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<sup>1</sup> OMB, DHS, and the Council of the Inspectors General on Integrity and Efficiency (CIGIE) developed the FY 2017 IG FISMA Reporting Metrics in consultation with the Federal Chief Information Officers (CIO) Council. The 7 FISMA Metric Domains were aligned with the 5 functions: (1) identify, (2) protect, (3) detect, (4) respond, and (5) recover as defined in the NIST *Framework for Improving Critical Infrastructure Cybersecurity*.

<sup>2</sup> As described in the DHS' *FY 2017 Inspector General Federal Information Security Modernization Act of 2014 Reporting Metrics Version 1.0*, the 7 FISMA Metric Domains are: (1) risk management, (2) configuration management, (3) identity and access management, (4) security training, (5) information security continuous monitoring, (6) incident response, and (7) contingency planning.



period July 1, 2016 through June 30, 2017. As such, the Council's information security program and practices were not fully effective for the period July 1, 2016 through June 30, 2017. However, we make no recommendation in this report as the Council has taken corrective action necessary to remediate the deficiency. We do, however, encourage the Council to continue its efforts to consistently implement, manage and measure its IT security program at an optimized level.

We provided the Council a draft of this report for comment. In a written response, management agreed with the results of our evaluation. See *Management's Response* in Appendix II for Council's response in its entirety.

## **BACKGROUND**

### **Gulf Coast Ecosystem Restoration Council**

Spurred by the Deepwater Horizon oil spill, the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act (RESTORE Act) was signed into law by President Obama on July 6, 2012. The RESTORE Act calls for a regional approach to restoring the long-term health of the valuable natural ecosystem and economy of the Gulf Coast region. The RESTORE Act dedicates 80 percent of civil and administrative penalties paid under the Clean Water Act, after the date of enactment, by responsible parties in connection with the Deepwater Horizon oil spill to the Gulf Coast Restoration Trust Fund for ecosystem restoration, economic recovery, and tourism promotion in the Gulf Coast region.

In addition to creating the Trust Fund, the RESTORE Act established the Gulf Coast Ecosystem Restoration Council. The Council is comprised of a Chairperson from a member Federal agency and includes the Governors of the States of Alabama, Florida, Louisiana, Mississippi, and Texas, and the Secretaries or designees of the U.S. departments of Agriculture, Army, Commerce, Homeland Security, and Interior, and the Administrator of the U.S. Environmental Protection Agency. However, the Chairperson position was vacant as of the end of our evaluation.

The Council's information system infrastructure consists of an office network and several system service providers. The system service providers support the Council's major applications:

1. For payroll processing, the Council uses WebTA hosted by the National Finance Center.
2. For financial management and reporting processing, the Council uses the Department of the Treasury's Administrative Resource Center (ARC).
3. For grants processing, the Council uses the Restoration Assistance and Awards Management System (RAAMS) hosted by U.S. Geological Survey.
4. For website support, the Council uses U.S. Geological Survey hosting services.

### **Federal Information Security Modernization Act of 2014**

Title III of the E-Government Act, entitled the Federal Information Security Modernization Act, requires each Federal agency to develop, document, and implement an agency-wide program to

provide information security for the information and systems that support the operations and assets of the agency, including those provided or managed by another agency, contractor, or other sources. The Federal Information Security Modernization Act of 2014 amends the Federal Information Security Management Act of 2002 and provides several modifications that modernize Federal security practices to address evolving security concerns. These changes result in less overall reporting, strengthens the use of continuous monitoring in systems, increased focus on the agencies for compliance, and reporting that is more focused on the issues caused by security incidents.

FISMA, along with the Paperwork Reduction Act of 1995 and the Information Technology Management Reform Act of 1996 (Clinger-Cohen Act), explicitly emphasizes a risk-based policy for cost-effective security. In support of and reinforcing this legislation, OMB through Circular A-130, “Managing Federal Information as a Strategic Resource,” requires executive agencies within the Federal government to:

- Plan for security
- Ensure that appropriate officials are assigned security responsibility
- Periodically review the security controls in their systems
- Authorize system processing prior to operations and, periodically, thereafter

These management responsibilities presume that responsible agency officials understand the risks and other factors that could adversely affect their missions. Moreover, these officials must understand the current status of their *security programs* and the security controls planned or in place to protect their information and systems in order to make informed judgments and investments that appropriately mitigate risk to an acceptable level. The ultimate objective is to conduct the day-to-day operations of the agency and to accomplish the agency's stated missions with *adequate security*, or security commensurate with risk, including the magnitude of harm resulting from the unauthorized access, use, disclosure, disruption, modification, or destruction of information.

NIST is responsible for developing information security standards and guidelines, including minimum requirements for federal systems, but such standards and guidelines shall not apply to national security systems without the express approval of appropriate federal officials exercising policy authority over such systems.

NIST also developed an integrated Risk Management Framework which effectively brings together all of the FISMA-related security standards and guidance to promote the development of comprehensive and balanced information security programs by agencies.

### **FISMA Reporting Metrics**

We considered the unique missions, resources, and challenges of the Council's operations when assessing the maturity of their information security program and practices. Accordingly, we evaluated the effectiveness of information security program and practices on a maturity model spectrum, in which the foundation levels ensure the development of sound policies and procedures. DHS's FISMA Reporting Metrics classify information security program and practices into five maturity model levels: ad-hoc, defined, consistently implemented, managed and measurable, and

optimized. Within the context of the maturity model, Level 4, Managed and Measurable, represents an effective level of security:

<b>Maturity Level</b>	<b>Maturity Level Description</b>
<b>Level 1: Ad-Hoc</b>	Policies, procedures, and strategy are not formalized; activities are performed in an ad-hoc, reactive manner.
<b>Level 2: Defined</b>	Policies, procedures, and strategy are formalized and documented but not consistently implemented.
<b>Level 3: Consistently Implemented</b>	Policies, procedures, and strategy are consistently implemented, but quantitative and qualitative effectiveness measures are lacking.
<b>Level 4: Managed and Measurable</b>	Quantitative and qualitative measures on the effectiveness of policies, procedures, and strategy are collected across the organization and used to assess them and make necessary changes.
<b>Level 5: Optimized</b>	Policies, procedures, and strategy are fully institutionalized, repeatable, self-generating, consistently implemented, and regularly updated based on a changing threat and technology landscape and business/mission needs.

The answers to the 61 FISMA Reporting Metrics reflect the results of our testing of the Council's information security program and practices. The FISMA Reporting Metrics were aligned with the five Cybersecurity Functions areas in the NIST Framework for Improving Critical Infrastructure Cybersecurity (Cybersecurity Framework):

1. Identify - Develop the organizational understanding to manage cybersecurity risk to systems, assets, data, and capabilities.
2. Protect - Develop and implement the appropriate safeguards to ensure delivery of critical infrastructure services.
3. Detect – Develop and implement the appropriate activities to identify the occurrence of a cybersecurity event.
4. Respond – Develop and implement the appropriate activities to take action regarding a detected cybersecurity event.
5. Recover – Develop and implement the appropriate activities to maintain plans for resilience and to restore any capabilities or services that were impaired due to a cybersecurity event.

## **EVALUATION RESULTS**

### **Council's Information Security Program and Practices Were Formalized and Documented But Not Consistently Applied**

Consistent with applicable FISMA requirements, OMB policy and guidance, and NIST standards and guidelines, the Council's information security program and practices were established and

have been maintained for the 5 Cybersecurity Functions and 7 FISMA Metric Domains. However, for Fiscal Year (FY) 2017, we identified 1 deficiency in the 5 Cybersecurity Functions and the 7 FISMA Metric Domains. As a result, the maturity level of the program was given a score of “Defined.” Specifically, the Council’s information security program and practices were formalized and documented but not consistently applied for the period July 1, 2016 through June 30, 2017. As such, the Council’s information security program and practices were not fully effective for the period July 1, 2016 through June 30, 2017 as follows.

The position of the CIO was vacant for 7 months of the evaluation period. The CIO in place for a portion of the fiscal year started the job on February 5, 2017, and left the Council on July 22, 2017. However, he has come back to the Council during October of 2017. The Council has hired outside contractors for IT support functions such as helpdesk support. The Council’s policies and procedures were written and approved in May 2017, and address all the required elements. Also, many of the control activities that support the implementation of the policies and procedures did not occur in sufficient cycles to determine whether the controls were consistently implemented, managed and measurable, or optimized. As a result, since the policies were not implemented for the entire period and the CIO position was vacant for a portion of the year, the Council did not sufficiently meet the requirements of FISMA for implementing and assessing an agency-wide information security program.

NIST Special Publication (SP) 800-53, *Security and Privacy Controls for Federal Information Systems and Organizations*, Revision 4, sets minimum standards for Federal information systems. This special publication requires all agencies to establish, approve, disseminate, develop policies and operating procedures, train personnel, and monitor the compliance with policies and procedures.

Among other controls, NIST delineates specific controls requiring Federal agencies to appoint a senior information security officer with the mission and resources to coordinate, develop, implement, and maintain an organization-wide information security program.

By not adhering to the above NIST requirements, the Council has an increased risk to the confidentiality, integrity, and availability of the Council’s data, applications, and networks. Without a CIO for the full period under evaluation, there is a lack of expertise to monitor security risks and to change security controls to mitigate new rising threats.

## **CONCLUSION**

Since the Acting Executive Director has re-hired the CIO to develop and maintain information security policies, procedures, and control techniques to address system security planning; and manage the identification, implementation, and assessment of common security controls, we have no recommendation to address the lack of the CIO. The Council has already taken the steps necessary to remediate the condition. We do, however, encourage the Council to continue its efforts to consistently implement, manage and measure its IT security program at an optimized level.

## **OBJECTIVE, SCOPE, AND METHODOLOGY**

### **Objective**

The objective of this evaluation was to evaluate the effectiveness of the Council's information security program and practices for the period July 1, 2016 through June 30, 2017.

### **Scope**

We conducted this evaluation in accordance with the Council of the Inspectors General on Integrity and Efficiency Quality Standards for Inspection and Evaluation. The evaluation was designed to determine whether the Council implemented selected security controls for selected information systems in support of the Federal Information Security Modernization Act of 2014.

Our evaluation was conducted for the period between July 1, 2016 and June 30, 2017. It consisted of testing the 61 FISMA Reporting Metrics listed in the *FY 2017 Inspector General Federal Information Security Modernization Act of 2014 (FISMA) Reporting Metrics V 1.0* (April 17, 2017) issued by DHS.

### **Methodology**

In performing our evaluation, we conducted interviews with Council officials and reviewed legal and regulatory requirements stipulated in FISMA. We also examined documents supporting the information security program and practices. Where appropriate, we compared documents, such as the Council's information technology policies and procedures, to requirements stipulated in NIST special publications. Also, we performed tests of system processes to determine the adequacy and effectiveness of those controls.

In testing for the effectiveness of the security controls, we exercised professional judgment in determining the number of items selected for testing and the method used to select them. We considered relative risk and the significance or criticality of the specific items in achieving the related control objectives. Also, we considered the severity of a deficiency related to the control activity and not the percentage of deficient items found compared to the total population available for review. In some cases, this resulted in selecting the entire population. However, in cases that we did not select the entire evaluation population, the results were not projected.

### **CRITERIA**

We focused our FISMA evaluation approach on Federal information security guidelines developed by the Council, NIST, and OMB. NIST SPs provide guidelines that are considered essential to the development and implementation of the Council's security programs. The following is a listing of the criteria used in the performance of the Fiscal Year 2017 FISMA evaluation:

## **NIST Federal Information Processing Standards (FIPS) and Special Publications**

- FIPS Publication 199, *Standards for Security Categorization of Federal Information and Information Systems*
- FIPS Publication 200, *Minimum Security Requirements for Federal Information and Information Systems*
- NIST SP 800-16, *Information Technology Security Training Requirements: A Role- and Performance-based Model*
- NIST SP 800-18 Revision 1, *Guide for Developing Security Plans for Federal Information Systems*
- NIST SP 800-30, *Risk Management Guide for Information Technology Systems*
- NIST SP 800-34, Revision 1, *Contingency Planning Guide for Federal Information Systems*
- NIST SP 800-37 Revision 1, *Guide for Applying the Risk Management Framework to Federal Information Systems: A Security Life Cycle Approach*
- NIST SP 800-46 Revision 1, *Guide to Enterprise Telework and Remote Access Security*
- NIST SP 800-50, *Building an Information Technology Security Awareness and Training Program*
- NIST SP 800-53 Revision 4, *Security and Privacy Controls for Federal Information Systems and Organizations*
- NIST SP 800-53A Revision 4, *Assessing Security and Privacy Controls in Federal Information Systems and Organizations: Building Effective Assessment Plans*
- NIST SP 800-61 Revision 1, *Computer Security Incident Handling Guide*

## **OMB Policy Directives**

- M-17-05: *Fiscal Year 2016 - 2017 Guidance on Federal Information Security and Privacy Management Requirements*
- M-16-03: *Fiscal Year 2015-2016 Guidance on Federal Information Security and Privacy Management Requirements*
- OMB Circular A-130, *Management of Federal Information Resources*
- OMB Memorandum 04-25, *FY 2004 Reporting Instructions for the Federal Information Security Management Act*
- OMB Memorandum 05-24, *Implementation of Homeland Security Presidential Directive (HSPD) 12 – Policy for a Common Identification Standard for Federal Employees and Contractors*
- OMB Memorandum 07-11, *Implementation of Common Accepted Security Configurations for Windows Operating Systems*
- OMB Memorandum 15-01, *Fiscal Year 2014 – 2015 Guidance on Improving Federal Information Security and Privacy Management Practice*

**United States Department of Homeland Security**

- *FY 2017 Inspector General Federal Information Security Modernization Act of 2014 (FISMA) Reporting Metrics V 1.0 April 17, 2017*

**The Gulf Coast Ecosystem Restoration Council  
FY 2017 Inspector General  
Federal Information Security Modernization Act of 2014  
Reporting Metrics**

**Appendix I:** FY 2017 Inspector General Federal Information Security Modernization Act of 2014 Reporting Metrics



**Note 1:** The position of CIO was vacant for 7 months of the fiscal year. The CIO started the job on February 5, 2017, and left the Council on July 22, 2017. Without a CIO, the Council lacked the expertise to monitor security risks and to change security controls to mitigate new rising threats. The Council's policies and procedures were written and approved in May 2017. Many of the control activities that support the implementation of the policies and procedures did not occur in sufficient cycles to determine whether the controls were consistently implemented, managed and measurable, or optimized.

**Note 2:** The Council's information system infrastructure consists an office network and several system service providers. The system service providers support the Council's major applications:

For payroll processing, the Council uses WebTA hosted by the National Finance Center.

For financial management and reporting processing, the Council uses the Department of the Treasury's Administrative Resource Center (ARC).

For grants processing, the Council uses the Restoration Assistance and Awards Management System (RAAMS) hosted by the U.S. Geological Survey.

For website support, the Council uses U.S. Geological Survey hosting services.

The Council is responsible for the configuration and baseline of its office network. The Council is not responsible for the system service provider's configurations and baselines.

<b>Identify</b>	<b>Risk Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
I. Does the organization maintain a comprehensive and accurate inventory of its information systems (including cloud systems, public facing websites, and third party systems), and system interconnections (NIST SP 80053: CA-3 and PM-5; OMB M-04-25; NIST Cybersecurity Framework (CSF): ID.AM-1 – 4).	Organization has not defined a process to develop and maintain a comprehensive and accurate inventory of its information systems and system interconnections.	The organization has defined, but not consistently implemented, a process to develop and maintain a comprehensive and accurate inventory of its information systems and system interconnections.	The organization maintains a comprehensive and accurate inventory of its information systems, public-facing websites, and third party systems), and system interconnections.		
<b>Maturity Level</b>		<b>X</b> See note 1 above			

Identify	Risk Management				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
2. To what extent does the organization use standard data elements/taxonomy to develop and maintain an up-to-date inventory of hardware assets connected to the organization's network with the detailed information necessary for tracking and reporting (NIST SP 800-53: CA-7 and CM-8; NIST SP 800-137; Federal Enterprise Architecture (FEA) Framework, v2).	The organization has not defined a process for using standard data elements/taxonomy to develop and maintain an up-to-date inventory of hardware assets connected to the organization's network with the detailed information necessary for tracking and reporting.	The organization has defined, but not consistently implemented, a process for using standard data elements/taxonomy to develop and maintain an up-to-date inventory of hardware assets connected to the organization's network with the detailed information necessary for tracking and reporting.	The organization consistently utilizes its standard data elements/taxonomy to develop and maintain an up-to-date inventory of hardware assets connected to the organization's network and uses this taxonomy to inform which assets can/cannot be introduced into the network.	The organization ensures that the hardware assets connected to the network are subject to the monitoring processes defined within the organization's ISCM strategy.	The organization employs automation to track the life cycle of the organization's hardware assets with processes that limit the manual/procedural methods for asset management. Further, hardware inventories are regularly updated as part of the organization's enterprise architecture current and future states.
<b>Maturity Level</b>			<b>X</b> See note 1 above		

<b>Identify</b>	<b>Risk Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
3. To what extent does the organization use standard data elements/taxonomy to develop and maintain an up-to-date inventory of the software and associated licenses used within the organization with the detailed information necessary for tracking and reporting (NIST SP 800-53: CA-7, CM8, and CM-10; NIST SP 800-137; FEA Framework, v2)?	The organization has not defined a process for using standard data elements/taxonomy to develop and maintain an up-to-date inventory of software assets and licenses utilized in the organization's environment with the detailed information necessary for tracking and reporting.	The organization has defined, but not consistently implemented, a process for using standard data elements/taxonomy to develop and maintain an up-to-date inventory of software assets and licenses utilized in the organization's environment with the detailed information necessary for tracking and reporting.	The organization consistently utilizes its standard data elements/taxonomy to develop and maintain an up-to-date inventory of software assets and licenses utilized in the organization's environment and uses this taxonomy to inform which assets can/cannot be introduced into the network.	The organization ensures that the software assets on the network (and their associated licenses) are subject to the monitoring processes defined within the organization's ISCM strategy.	The organization employs automation to track the life cycle of the organization's software assets (and their associated licenses) with processes that limit the manual/procedural methods for asset management. Further, software inventories are regularly updated as part of the organization's enterprise architecture current and future states.
<b>Maturity Level</b>		<b>X</b> See note 1 above			

Protect	Risk Management				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
<p>4. To what extent has the organization categorized and communicated the importance/priority of information systems in enabling its missions and business functions (NIST SP 800-53: RA-2, PM-7, and PM-11; NIST SP 800-60; CSF: ID.BE-3; and FIPS 199)?</p>	<p>The organization has not categorized and communicated the importance/priority of information systems in enabling its missions and business functions.</p>	<p>The organization has categorized and communicated the importance/priority of information systems in enabling its missions and business functions.</p>	<p>Information on the organization's defined importance/priority levels for its missions, business functions, and information is consistently used and integrated with other information security areas to guide risk management activities and investments in accordance with applicable requirements and guidance.</p>		
<p><b>Maturity Level</b></p>		<p><b>X</b> See note 1 above</p>			
<p>5. To what extent has the organization established, communicated, and implemented its risk management policies, procedures, and strategy that include the organization's processes and methodologies for categorizing risk, developing a risk profile, assessing risk, risk appetite/tolerance levels, responding to risk, and monitoring risk (NIST 800-39; NIST 800-53: PM-8, PM-9; CSF: ID.RM-1 – ID.RM-3; OMB A-123; CFO Council ERM Playbook)?</p>	<p>Risk management policies, procedures, and strategy have not been fully defined, established, and communicated across the organization.</p>	<p>Risk management policies, procedures, and strategy have been developed and communicated across the organization. The strategy clearly states risk management objectives in specific and measurable terms.</p>	<p>The organization consistently implements its risk management policies, procedures, and strategy at the enterprise, business process, and information system levels. The organization uses its risk profile to facilitate a determination on the aggregate level and types of risk that management is willing to assume. Further, the organization is consistently capturing and sharing lessons learned on the effectiveness of risk management processes and activities to update the program.</p>	<p>The organization monitors and analyzes its defined qualitative and quantitative performance measures on the effectiveness of its risk management strategy across disciplines and collects, analyzes and reports information on the effectiveness of its risk management program. Data supporting risk management metrics are obtained accurately, consistently, and in a reproducible format.</p>	<p>The enterprise risk management program is fully integrated with other security areas, such as ISCM, and other business processes, such as strategic planning and capital planning and investment control. Further, the organization's risk management program is embedded into daily decision making across the organization and provides for continuous risk identification.</p>

<b>Protect</b>	<b>Risk Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
<b>Maturity Level</b>		<b>X</b> See note 1 above			

Protect	Risk Management				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
<p>6. Has the organization defined an information security architecture and described how that architecture is integrated into and supports the organization's enterprise architecture to provide a disciplined and structured methodology for managing risk (NIST 800-39; FEA; NIST 800-53: PL-8, SA-3, and SA8)?</p>	<p>The organization has not defined an information security architecture and its processes for ensuring that new/acquired hardware/software are consistent with its security architecture prior to introducing systems into its development environment.</p>	<p>The organization has defined an information security architecture and described how that architecture is integrated into and supports the organization's enterprise architecture to provide a disciplined and structured methodology for managing risk. In addition, the organization has defined a process to conduct a security architecture review for new/acquired hardware/software prior to introducing systems into its development environment.</p>	<p>The organization has consistently implemented its security architecture across the enterprise, business process, and system levels. Security architecture reviews are consistently performed for new/acquired hardware/software prior to introducing systems into the organization's development environment.</p>		
<p><b>Maturity Level</b></p>		<p><b>X</b> See note 1 above</p>			

<b>Protect</b>	<b>Risk Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
7. To what degree have roles and responsibilities of stakeholders involved in risk management, including the risk executive function/Chief Risk Officer, Chief Information Officer, Chief Information Security Officer, and other internal and external stakeholders and mission specific resources been defined and communicated across the organization (NIST 800-39: Section 2.3.1 and 2.3.2; NIST 800-53: RA-1; CSF: ID.RM-1 – ID.GV-2, OMB A-123, CFO Council ERM Playbook)?	Roles and responsibilities have not been defined and communicated across the organization.	Roles and responsibilities of stakeholders have been defined and communicated across the organization.	Roles and responsibilities of stakeholders involved in risk management have been defined and communicated across the organization. Stakeholders have adequate resources (people, processes, and technology) to effectively implement risk management activities.	The organization utilizes an integrated risk management governance structure for implementing and overseeing an enterprise risk management (ERM) capability that manages risks from information security, strategic planning and strategic reviews, internal control activities, and applicable mission/business areas.	The organization's risk management program addresses the full spectrum of an agency's risk portfolio across all organizational (major units, offices, and lines of business) and business (agency mission, programs, projects, etc.) aspects.
<b>Maturity Level</b>		<b>X</b> See note 1 above			



Protect	Risk Management				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
8. To what extent has the organization ensured that plans of action and milestones (POA&Ms) are utilized for effectively mitigating security weaknesses (NIST SP 800-53: CA-5; OMB M-04-25)?	Policies and procedures for the effective use of POA&Ms to mitigate security weaknesses have not been defined and communicated.	Policies and procedures for the effective use of POA&Ms have been defined and communicated. These policies and procedures address, at a minimum, the centralized tracking of security weaknesses, prioritization of remediation efforts, maintenance, and independent validation of POA&M activities.	The organization consistently implements POA&Ms, in accordance with the organization's policies and procedures, to effectively mitigate security weaknesses.	The organization monitors and analyzes qualitative and quantitative performance measures on the effectiveness of its POA&M activities and uses that information to make appropriate adjustments, as needed, to ensure that its risk posture is maintained.	The organization employs automation to correlate security weaknesses amongst information systems and identify enterprise-wide trends and solutions on a near real-time basis. Furthermore, processes are in place to identify and manage emerging risks, in addition to known security weaknesses.
<b>Maturity Level</b>			<b>X</b> See note 1 above		

<b>Protect</b>	<b>Risk Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
<p>9. To what extent has the organization defined, communicated, and implemented its policies and procedures for conducting system level risk assessments, including for identifying and prioritizing (i) internal and external threats, including through use of the common vulnerability scoring system, or other equivalent framework (ii) internal and external asset vulnerabilities, including through vulnerability scanning, (iii) the potential likelihoods and business impact/s/consequences of threats exploiting vulnerabilities, and (iv) selecting and implementing security controls to mitigate system-level risks (NIST 80037; NIST 800-39; NIST 80053: PL-2, RA-1; NIST 800-30; CSF:ID.RA-1 – 6)?</p>	<p>Policies and procedures for system level risk assessments and security control selections have not been defined and communicated.</p>	<p>Policies and procedures for system level risk assessments and security control selections are defined and communicated. In addition, the organization has developed a tailored set of baseline criteria that provides guidance regarding acceptable risk assessment approaches and controls to be evaluated tailored to organizational and system risk.</p>	<p>System risk assessments are performed and appropriate security controls are implemented on a consistent basis. The organization utilizes the common vulnerability scoring system, or similar approach, to communicate the characteristics and severity of software vulnerabilities.</p>	<p>The organization consistently monitors the effectiveness of risk responses to ensure that enterprise-wide risk tolerance is maintained at an appropriate level.</p>	
<b>Maturity Level</b>		<p><b>X</b> See note 1 above</p>			

<b>Protect</b>	<b>Risk Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
10. To what extent does the organization ensure that information about risks are communicated in a timely manner to all necessary internal and external stakeholders (CFO Council ERM Playbook; OMB A-123)?	The organization has not defined how information about risks are communicated in a timely manner to all necessary internal and external stakeholders.	The organization has defined how information about risks are communicated in a timely manner to all necessary internal and external stakeholders.	The organization ensures that information about risks is communicated in a timely and consistent manner to all internal and external stakeholders with a need-to-know. Furthermore, the organization actively shares information with partners to ensure that accurate, current information is being distributed and consumed.	The organization employs robust diagnostic and reporting frameworks, including dashboards that facilitate a portfolio view of interrelated risks across the organization. The dashboard presents qualitative and quantitative metrics that provide indicators of risk.	Through the use of risk profiles and dynamic reporting mechanisms, the risk management program provides a fully integrated, prioritized, enterprise-wide view of organizational risks to drive strategy and business decisions.
<b>Maturity Level</b>		<b>X</b> See note 1 above			

<b>Protect</b>	<b>Risk Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
<p>11. To what extent does the organization ensure that specific contracting language (such as appropriate information security and privacy requirements and material disclosures, FAR clauses, and clauses on protection, detection, and reporting of information) and SLAs are included in appropriate contracts to mitigate and monitor the risks related to contractor systems and services (FAR Case 2007-004; Common Security Configurations; FAR Sections: 24.104, 39.101, 39.105, 39.106, 52.239-1; President's Management Council; NIST 800-53: SA-4; FedRAMP standard contract clauses; Cloud Computing Contract Best Practices; FY 2017 CIO FISMA Metrics: 1.7, 1.8).</p>	<p>The organization has not defined a process that includes information security and other business areas as appropriate for ensuring that contracts and other agreements for contractor systems and services include appropriate clauses to monitor the risks related to such systems and services. Further, the organization has not defined its processes for ensuring appropriate information security oversight of contractor provided systems and services.</p>	<p>The organization has defined a process that includes information security and other business areas as appropriate for ensuring that contracts and other agreements for third party systems and services include appropriate clauses to monitor the risks related to such systems and services. In addition, the organization has defined its processes to ensure that security controls of systems or services provided by contractors or other entities on behalf of the organization meet FISMA requirements, OMB policy, and applicable NIST guidance.</p>	<p>The organization ensures that specific contracting language and SLAs are consistently included in appropriate contracts to mitigate and monitor the risks related to contractor systems and services. Further, the organization obtains sufficient assurance that the security controls of systems or services provided by contractors or other entities on behalf of the organization meet FISMA requirements, OMB policy, and applicable NIST guidance.</p>	<p>The organization uses qualitative and quantitative performance metrics (e.g., those defined within SLAs) to measure, report on, and monitor information security performance of contractor operated systems and services.</p>	
<b>Maturity Level</b>		<p><b>X</b> See note 1 above</p>			

<b>Protect</b>	<b>Risk Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
<p>12. To what extent does the organization utilize technology (such as a governance, risk management, and compliance tool) to provide a centralized, enterprise wide (portfolio) view of risks across the organization, including risk control and remediation activities, dependencies, risk scores/levels, and management dashboards (NIST SP 800-39; OMB A-123; CFO Council ERM Playbook)?</p>	<p>The organization has not identified and defined its requirements for an automated solution to provide a centralized, enterprise wide (portfolio) view of risks across the organization, including risk control and remediation activities, dependencies, risk scores/levels, and management dashboards.</p>	<p>The organization has identified and defined its requirements for an automated solution that provides a centralized, enterprise wide view of risks across the organization, including risk control and remediation activities, dependencies, risk scores/levels, and management dashboards.</p>	<p>The organization consistently implements an automated solution across the enterprise that provides a centralized, enterprise wide view of risks, including risk control and remediation activities, dependencies, risk scores/levels, and management dashboards. All necessary sources of risk information are integrated into the solution.</p>	<p>The organization uses automation to perform scenario analysis and model potential responses, including modeling the potential impact of a threat exploiting a vulnerability and the resulting impact to organizational systems and data.</p>	<p>The organization has institutionalized the use of advanced technologies for analysis of trends and performance against benchmarks to continuously improve its risk management program.</p>
<b>Maturity Level</b>		<p><b>X</b> See note 1 above</p>			

<b>Protect</b>	<b>Risk Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
<p>13. Provide any additional information on the effectiveness (positive or negative) of the organization's risk management program that was not noted in the questions above. Taking into consideration the overall maturity level generated from the questions above and based on all testing performed, is the risk management program effective?</p>	<p>The position of CIO was vacant for 7 months of the fiscal year. The CIO started the job on February 5, 2017, and left the Council on July 22, 2017. Without a CIO, the Council lacked the expertise to monitor security risks and to change security controls to mitigate new rising threats.</p> <p>Therefore, the Council's risk management program is not effective.</p>				
<b>Overall Score for Risk Management</b>		<b>X</b> See note 1 above			

<b>Protect</b>	<b>Configuration Management</b>				
<b>Question</b>			<b>Maturity Level</b>		
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
14. To what degree have the roles and responsibilities of configuration management stakeholders been defined, communicated across the agency, and appropriately resourced (NIST SP 800-53: CM-1; SP 800-128: Section 2.4)?	Roles and responsibilities at the organizational and information system levels for stakeholders involved in information system configuration management have not been fully defined and communicated across the organization.	Roles and responsibilities at the organizational and information system levels for stakeholders involved in information system configuration management have been fully defined and communicated across the organization.	Stakeholders have adequate resources (people, processes, and technology) to consistently implement information system configuration management activities.	Staff are assigned responsibilities for developing and maintaining metrics on the effectiveness of information system configuration management activities. The organization's staff is consistently collecting, monitoring, analyzing, and updating qualitative and quantitative performance measures across the organization and is reporting data on the effectiveness of the organization's information system configuration management program to the Chief Information Security Officer.	
<b>Maturity Level</b>		<b>X</b> See note 1 and 2 above			

<b>Protect</b>	<b>Configuration Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
<p>15. To what extent does the organization utilize an enterprise wide configuration management plan that includes, at a minimum, the following components: roles and responsibilities, including establishment of a Change Control Board (CCB) or related body; configuration management processes, including processes for: identifying and managing configuration items during the appropriate location within an organization's SDLC; configuration monitoring; and applying configuration management requirements to contracted systems (NIST 800-128: Section 2.3.2; NIST 80053: CM-9).</p>	<p>The organization has not developed an organization wide configuration management plan with the necessary components.</p>	<p>The organization has developed an organization wide configuration management plan that includes the necessary components.</p>	<p>The organization has consistently implemented an organization wide configuration management plan and has integrated its plan with its risk management and continuous monitoring programs. Further, the organization utilizes lessons learned in implementation to make improvements to its plan.</p>	<p>The organization monitors, analyzes, and reports to stakeholders qualitative and quantitative performance measures on the effectiveness of its configuration management plan, uses this information to take corrective actions when necessary, and ensures that data supporting the metrics is obtained accurately, consistently, and in a reproducible format.</p>	<p>The organization utilizes automation to adapt its configuration management plan and related processes and activities to a changing cybersecurity landscape on a near real-time basis (as defined by the organization).</p>
<b>Maturity Level</b>		<b>X</b> See note 1 and 2 above			
<p>16. To what degree have information system configuration management policies and procedures been defined and implemented across the organization? (Note: the maturity level should take into consideration the maturity of questions 17, 18, 19, and 21) (NIST SP 800-53: CM-1; NIST 800-128: 2.2.1)</p>	<p>The organization has not developed, documented, and disseminated comprehensive policies and procedures for information system configuration management.</p>	<p>The organization has developed, documented, and disseminated comprehensive policies and procedures for managing the configurations of its information systems. Policies and procedures have been tailored to the organization's environment and include specific requirements.</p>	<p>The organization consistently implements its policies and procedures for managing the configurations of its information systems. Further, the organization utilizes lessons learned in implementation to make improvements to its policies and procedures.</p>	<p>The organization monitors, analyzes, and reports on the qualitative and quantitative performance measures on the effectiveness of its configuration management policies and procedures and ensures that data supporting the metrics is obtained accurately, consistently, and in a reproducible format.</p>	<p>On a near real-time basis, the organization actively adapts its configuration management plan and related processes and activities to a changing cybersecurity landscape to respond to evolving and sophisticated threats.</p>



<b>Protect</b>	<b>Configuration Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
<b>Maturity Level</b>		<b>X</b> See note 1 and 2 above			

<b>Protect</b>	<b>Configuration Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
17. To what extent does the organization utilize baseline configurations for its information systems and maintain inventories of related components at a level of granularity necessary for tracking and reporting (NIST SP 800-53: CM-2, CM-8; FY 2017 CIO FISMA Metrics: 1.4, 1.5, and 2.1; CSF: ID.DE.CM-7)?	The organization has not established policies and procedures to ensure that baseline configurations for its information systems are developed, documented, and maintained under configuration control and that system components are inventoried at a level of granularity deemed necessary for tracking and reporting.	The organization has developed, documented, and disseminated its baseline configuration and component inventory policies and procedures.	The organization consistently records, implements, and maintains under configuration control, baseline configurations of its information systems and an inventory of related components in accordance with the organization's policies and procedures.	The organization employs automated mechanisms (such as application whitelisting and network management tools) to detect unauthorized hardware, software, and firmware on its network and take immediate actions to limit any security impact.	The organization utilizes technology to implement a centralized baseline configuration and information system component inventory process that includes information from all organization systems (hardware and software) and is updated in a near real-time basis.
<b>Maturity Level</b>			<b>X</b> See note 2 above		

<b>Protect</b>	<b>Configuration Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
18. To what extent does the organization utilize configuration settings/common secure configurations for its information systems? (NIST SP 800-53: CM-6, CM-7, and SI-2; FY 2017 CIO FISMA Metrics: 2.2; SANS/CIS Top 20 Security Controls 3.7)?	The organization has not established policies and procedures for ensuring that configuration settings/common secure configurations are defined, implemented, and monitored.	The organization has developed, documented, and disseminated its policies and procedures in this area and developed common secure configurations (hardening guides) that are tailored to its environment. Further, the organization has established a deviation process.	The organization consistently implements, assesses, and maintains secure configuration settings for its information systems based on least functionality. Further, the organization consistently utilizes SCAP validated software assessing (scanning) capabilities against all systems on the network to assess and manage both code based and configuration-based vulnerabilities.	The organization employs automation to help maintain an up-to-date, complete, accurate, and readily available view of the security configurations for all information system components connected to the organization's network.	The organization deploys system configuration management tools that automatically enforce and redeploy configuration settings to systems at frequent intervals as defined by the organization, or on an event driven basis.
<b>Maturity Level</b>			<b>X</b> See note 2 above		

Protect	Configuration Management				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
<p>19. To what extent does the organization utilize flaw remediation processes, including patch management, to manage software vulnerabilities (NIST SP 800-53: CM-3, SI-2; NIST 800-40, Rev. 3; OMB M-16-04; SANS/CIS Top 20 Control 4.5; and DHS Binding Operational Directive 15-01)?</p>	<p>The organization has not developed, documented, and disseminated its policies and procedures for flaw remediation.</p>	<p>The organization has developed, documented, and disseminated its policies and procedures for flaw remediation. Policies and procedures include processes for: identifying, reporting, and correcting information system flaws, testing software and firmware updates prior to implementation, installing security relevant updates and patches within organizational defined timeframes, and incorporating flaw remediation into the organization's configuration management processes.</p>	<p>The organization consistently implements its flaw remediation policies, procedures, and processes and ensures that patches, hotfixes, service packs, and anti-virus/malware software updates are identified, prioritized, tested, and installed in a timely manner. In addition, the organization patches critical vulnerabilities within 30 days.</p>	<p>The organization centrally manages its flaw remediation process and utilizes automated patch management and software update tools for operating systems, where such tools are available and safe.</p>	<p>The organization utilizes automated patch management and software update tools for all applications and network devices, as appropriate, where such tools are available and safe.</p>
<p><b>Maturity Level</b></p>		<p><b>X</b> See note 1 and 2 above</p>			

Protect	Configuration Management				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
20. To what extent has the organization adopted the Trusted Internet Connection (TIC) program to assist in protecting its network (FY 2017 CIO Metrics: 2.26, 2.27, 2.29; OMB M-08-05)?	The organization has not adequately prepared and planned to meet the goals of the TIC initiative. This includes plans for reducing and consolidating its external connections, routing agency traffic through defined access points, and meeting the critical TIC security controls.	The organization has defined its plans for meeting the goals of the TIC initiative and its processes for inventorying its external connections, meeting the defined TIC security controls, and routing all agency traffic through defined access points. Further the agency has identified the TIC 2.0 capabilities enabled by its provider, the critical capabilities that it manages internally, and the recommended capabilities that are provided through the TIC provider or internally.	The organization has consistently implemented its TIC approved connections and critical capabilities that it manages internally. The organization has consistently implemented defined TIC security controls, as appropriate, and implemented actions to ensure that all agency traffic, including mobile and cloud, are routed through defined access points, as appropriate.		
<b>Maturity Level</b>		<b>X</b> See note 1 above.			

<b>Protect</b>	<b>Configuration Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
<p>21. To what extent has the organization defined and implemented configuration change control activities including: determination of the types of changes that are configuration controlled; review and approval/disapproval of proposed changes with explicit consideration of security impacts and security classification of the system; documentation of configuration change decisions; implementation of approved configuration changes; retaining records of implemented changes; auditing and review of configuration changes; and coordination and oversight of changes by the CCB, as appropriate (NIST 800-53: CM2, CM-3).</p>	<p>The organization has not developed, documented, and disseminated its policies and procedures for managing configuration change control. Policies and procedures do not address, at a minimum, one or more of the necessary configuration change control related activities.</p>	<p>The organization has developed, documented, and disseminated its policies and procedures for managing configuration change control. The policies and procedures address, at a minimum, the necessary configuration change control related activities.</p>	<p>The organization consistently implements its change control policies, procedures, and processes, including explicitly consideration of security impacts prior to implementing changes.</p>	<p>The organization monitors, analyzes, and reports on the qualitative and quantitative performance measures on the effectiveness of its change control activities and ensures that data supporting the metrics is obtained accurately, consistently, and in a reproducible format.</p>	
<b>Maturity Level</b>		<p><b>X</b> See note 1 and 2 above</p>			

<b>Protect</b>	<b>Configuration Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
<p>22. Provide any additional information on the effectiveness (positive or negative) of the organization's configuration management program that was not noted in the questions above. Taking into consideration the maturity level generated from the questions above and based on all testing performed, is the configuration management program effective?</p>	<p>The lack of the CIO for a portion of the year allows room for the Council to grow its configuration management program from defined into the higher ratings. The risks are mitigated by the fact that most of the Council's systems and related change controls are outsourced, adequate, and effective.</p> <p>Therefore, the Council's Configuration Management program is not effective.</p>				
<b>Overall Score for Configuration Management</b>		<p><b>X</b> See note 1 and 2 above</p>			

Protect	Identity and Access Management				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
<p>23. To what degree have the roles and responsibilities of identity, credential, and access management (ICAM) stakeholders been defined, communicated across the agency, and appropriately resourced (NIST 800-53: AC-1, IA-1, PS-1; and the Federal Identity, Credential, and Access Management Roadmap and Implementation Guidance (FICAM))?</p>	<p>Roles and responsibilities at the organizational and information system levels for stakeholders involved in ICAM have not been fully defined and communicated across the organization.</p>	<p>Roles and responsibilities at the organizational and information system levels for stakeholders involved in ICAM have been fully defined and communicated across the organization. This includes, as appropriate, developing an ICAM governance structure to align and consolidate the agency's ICAM investments, monitoring programs, and ensuring awareness and understanding.</p>	<p>Stakeholders have adequate resources (people, processes, and technology) to effectively implement identity, credential, and access management activities.</p>	<p>Staff are assigned responsibilities for developing, managing, and monitoring metrics on the effectiveness of ICAM activities. The organization's staff is consistently collecting monitoring, and analyzing qualitative and quantitative performance measures across the organization and is reporting data on the effectiveness of the organization's identity, credential, and access management program.</p>	
<p>Maturity Level</p>		<p style="text-align: center;"><b>X</b> See note 1 above</p>			



Protect	Identity and Access Management				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
24. To what degree does the organization utilize an ICAM strategy to guide its ICAM processes and activities (FICAM)?	The organization has not developed an ICAM strategy that includes a review of current practices ("as-is" assessment), identification of gaps (from a desired or "to-be state"), and a transition plan.	The organization has defined its ICAM strategy and developed milestones for how it plans to align with Federal initiatives, including strong authentication, the FICAM segment architecture, and phase 2 of DHS's Continuous Diagnostics Mitigation (CDM) program, as appropriate.	The organization is consistently implementing its ICAM strategy and is on track to meet milestones.	The organization has transitioned to its desired or "to-be" ICAM architecture and integrates its ICAM strategy and activities with its enterprise architecture and the FICAM segment architecture.	On a near real-time basis, the organization actively adapts its ICAM strategy and related processes and activities to a changing cybersecurity landscape to respond to evolving and sophisticated threats.
Maturity Level		<b>X</b> See note 1 above			

Protect	Identity and Access Management				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
<p>25. To what degree have ICAM policies and procedures been defined and implemented? (Note: the maturity level should take into consideration the maturity of questions 27 through 31) (NIST 800-53: AC-1 and IA-1; Cybersecurity Strategy and Implementation Plan (CSIP); and SANS/CIS Top 20: 14.1).</p>	<p>The organization has not developed, documented, and disseminated its policies and procedures for ICAM.</p>	<p>The organization has developed, documented, and disseminated its policies and procedures for ICAM. Policies and procedures have been tailored to the organization's environment and include specific requirements.</p>	<p>The organization consistently implements its policies and procedures for ICAM, including for account management, separation of duties, least privilege, remote access management, identifier and authenticator management, and identification and authentication of nonorganizational users. Further, the organization is consistently capturing and sharing lessons learned on the effectiveness of its ICAM policies, procedures, and processes to update the program.</p>	<p>The organization uses automated mechanisms (e.g. machine-based, or user based enforcement), where appropriate, to manage the effective implementation of its policies and procedures. Examples of automated mechanisms include network segmentation based on the label/classification of information stored on the servers; automatic removal/disabling of temporary/emergency/inactive accounts, use of automated tools to inventory and manage accounts and perform segregation of duties/least privilege reviews.</p>	<p>The organization employs adaptive identification and authentication techniques to assess suspicious behavior and potential violations of its ICAM policies and procedures on near-real-time basis.</p>
<p>Maturity Level</p>		<p><b>X</b> See note 1 above</p>			

Protect	Identity and Access Management				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
<p>26. To what extent has the organization developed and implemented processes for assigning personnel risk designations and performing appropriate screening prior to granting access to its systems (NIST SP 800-53: PS-2, PS-3; and National Insider Threat Policy)?</p>	<p>The organization has not defined its processes for assigning personnel risk designations and performing appropriate screening prior to granting access to its systems.</p>	<p>The organization has defined its processes for ensuring that all personnel are assigned risk designations and appropriately screened prior to being granted access to its systems. Processes have been defined for assigning risk designations for all positions, establishing screening criteria for individuals filling those positions, authorizing access following screening completion, and rescreening individuals on a periodic basis.</p>	<p>The organization ensures that all personnel are assigned risk designations, appropriately screened prior to being granted system access, and rescreened periodically.</p>	<p>The organization employs automation to centrally document, track, and share risk designations and screening information with necessary parties, as appropriate.</p>	<p>On a near-real time basis, the organization evaluates personnel security information from various sources, integrates this information with anomalous user behavior data (audit logging) and/or its insider threat activities, and adjusts permissions accordingly.</p>
<p><b>Maturity Level</b></p>		<p><b>X</b> See note 1 above</p>			

<b>Protect</b>	<b>Identity and Access Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
27. To what extent does the organization ensure that access agreements, including nondisclosure agreements, acceptable use agreements, and rules of behavior, as appropriate, for individuals (both privileged and non-privileged users) that access its systems are completed and maintained (NIST SP 80053: AC-8, PL-4, and PS-6)?	The organization has not defined its processes for developing, documenting, and maintaining access agreements for individuals that access its systems.	The organization has defined its processes for developing, documenting, and maintaining access agreements for individuals.	The organization ensures that access agreements for individuals are completed prior to access being granted to systems and are consistently maintained thereafter. The organization utilizes more specific/detailed agreements for privileged users or those with access to sensitive information, as appropriate.		
<b>Maturity Level</b>		<b>X</b> See note 1 above			

Protect	Identity and Access Management				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
28. To what extent has the organization implemented strong authentication mechanisms (PIV or Level of Assurance 4 credential) for non-privileged users to access the organization's facilities, networks, and systems, including for remote access (CSIP; HSPD-12; NIST SP 800-53: AC-17; NIST SP 800-128; FIPS 201-2; NIST SP 800-63; and Cybersecurity Sprint)?	The organization has not planned for the use of strong authentication mechanisms for non-privileged users of the organization's facilities, systems, and networks, including for remote access. In addition, the organization has not performed e-authentication risk assessments to determine which systems require strong authentication.	The organization has planned for the use of strong authentication mechanisms for non-privileged users of the organization's facilities, systems, and networks, including the completion of Eauthentication risk assessments.	The organization has consistently implemented strong authentication mechanisms for non-privileged users of the organization's facilities and networks, including for remote access, in accordance with Federal targets.	All non-privileged users utilize strong authentication mechanisms to authenticate to applicable organizational systems.	The organization has implemented an enterprise-wide single sign on solution and all of the organization's systems interface with the solution, resulting in an ability to manage user (non-privileged) accounts and privileges centrally and report on effectiveness on a nearly real-time basis.
<b>Maturity Level</b>		<b>X</b> See note 1 above			

Protect	Identity and Access Management				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
29. To what extent has the organization implemented strong authentication mechanisms (PIV or Level of Assurance 4 credential) for privileged users to access the organization's facilities, networks, and systems, including for remote access (CSIP; HSPD-12; NIST SP 800-53: AC-17; NIST SP 800-128; FIPS 201-2; NIST SP 800-63; and Cybersecurity Sprint)?	The organization has not planned for the use of strong authentication mechanisms for privileged users of the organization's facilities, systems, and networks, including for remote access. In addition, the organization has not performed e-authentication risk assessments to determine which systems require strong authentication.	The organization has planned for the use of strong authentication mechanisms for privileged users of the organization's facilities, systems, and networks, including the completion of E-authentication risk assessments.	The organization has consistently implemented strong authentication mechanisms for privileged users of the organization's facilities and networks, including for remote access, in accordance with Federal targets.	All privileged users utilize strong authentication mechanisms to authenticate to applicable organizational systems.	The organization has implemented an enterprise-wide single sign on solution and all of the organization's systems interface with the solution, resulting in an ability to manage user (privileged) accounts and privileges centrally and report on effectiveness on a nearly real-time basis.
<b>Maturity Level</b>		<b>X</b> See note 1 above			

Protect	Identity and Access Management				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
<p>30. To what extent does the organization ensure that privileged accounts are provisioned, managed, and reviewed in accordance with the principles of least privilege and separation of duties? Specifically, this includes processes for periodic review and adjustment of privileged user accounts and permissions, inventorying and validating the scope and number of privileged accounts, and ensuring that privileged user account activities are logged and periodically reviewed (FY 2017 CIO FISMA metrics: Section 2; NIST SP 800-53: AC-1, AC-2 (2), AC-17; CSIP).</p>	<p>The organization has not defined its processes for provisioning, managing, and reviewing privileged accounts.</p>	<p>The organization has defined its processes for provisioning, managing, and reviewing privileged accounts. Defined processes cover approval and tracking, inventorying and validating, and logging and reviewing privileged users' accounts.</p>	<p>The organization ensures that its processes for provisioning, managing, and reviewing privileged accounts are consistently implemented across the organization. The organization limits the functions that can be performed when using privileged accounts; limits the duration that privileged accounts can be logged in; limits the privileged functions that can be performed using remote access; and ensures that privileged user activities are logged and periodically reviewed.</p>	<p>The organization employs automated mechanisms (e.g. machine-based, or user based enforcement) to support the management of privileged accounts, including for the automatic removal/disabling of temporary, emergency, and inactive accounts, as appropriate.</p>	
<p><b>Maturity Level</b></p>		<p><b>X</b> See note 1 above</p>			
<p>31. To what extent does the organization ensure that appropriate configuration/connection requirements are maintained for remote access connections? This includes the use of appropriate cryptographic modules, system time-outs, and the monitoring and control of remote access sessions (NIST SP 800-53: AC-17, SI-4; and FY 2017 CIO FISMA Metrics: Section 2).</p>	<p>The organization has not defined the configuration/connection requirements for remote access connections, including use of FIPS 140-2 validated cryptographic modules, system time-outs, and monitoring and control of remote access sessions (NIST 800-53: AC-17).</p>	<p>The organization has defined its configuration/connection requirements for remote access connections, including use of cryptographic modules, system time-outs, and how it monitors and controls remote access sessions.</p>	<p>The organization ensures that FIPS 140-2 validated cryptographic modules are implemented for its remote access connection method(s), remote access sessions time out after 30 minutes (or less), and that remote users' activities are logged and reviewed based on risk.</p>	<p>The organization ensures that end user devices have been appropriately configured prior to allowing remote access and restricts the ability of individuals to transfer data accessed remotely to nonauthorized devices.</p>	<p>The organization has deployed a capability to rapidly disconnect remote access user sessions based on active monitoring. The speed of disablement varies based on the criticality of missions/business functions.</p>

<b>Protect</b>	<b>Identity and Access Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
<b>Maturity Level</b>		<b>X</b> See note 1 above			



<b>Protect</b>	<b>Identity and Access Management</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
<p>32. Provide any additional information on the effectiveness (positive or negative) of the organization's identity and access management program that was not noted in the questions above. Taking into consideration the maturity level generated from the questions above and based on all testing performed, is the identity and access management program effective?</p>	<p>The lack of the CIO for a portion of the year allows room for the Council to grow its identity and access management program from defined into the higher ratings. The risks are mitigated by the fact that most of the Council's systems and related change controls are outsourced, adequate, and effective.</p> <p>However, more progress needs to be made. As a result, the Council's Identity and Access Management program is not effective</p>				
<p><b>Overall Score for Identity and Access Management</b></p>		<p><b>X</b> See note 1 above</p>			

Protect	Security Training				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
<p>33. To what degree have the roles and responsibilities of security awareness and training program stakeholders been defined, communicated across the agency, and appropriately resourced? (Note: this includes the roles and responsibilities for the effective establishment and maintenance of an organization wide security awareness and training program as well as the awareness and training related roles and responsibilities of system users and those with significant security responsibilities (NIST 800-53: AT-1; and NIST SP 800- 50).</p>	<p>Roles and responsibilities have not been defined, communicated across the organization, and appropriately resourced.</p>	<p>Roles and responsibilities have been defined and communicated across the organization and resource requirements have been established.</p>	<p>Roles and responsibilities for stakeholders involved in the organization’s security awareness and training program have been defined and communicated across the organization. In addition, stakeholders have adequate resources (people, processes, and technology) to consistently implement security awareness and training responsibilities.</p>	<p>The organization has assigned responsibility for monitoring and tracking the effectiveness of security awareness and training activities. Staff is consistently collecting, monitoring, and analyzing qualitative and quantitative performance measures on the effectiveness of security awareness and training activities.</p>	
<p><b>Maturity Level</b></p>				<b>X</b>	
<p>34. To what extent does the organization utilize an assessment of the skills, knowledge, and abilities of its workforce to provide tailored awareness and specialized security training within the functional areas of: identify, protect, detect, respond, and recover (NIST 800-53: AT-2 and AT-3; NIST 800-50: Section 3.2; Federal Cybersecurity Workforce Assessment Act of 2015; National Cybersecurity Workforce Framework v 1.0; NIST SP 800-181 (Draft); and CIS/SANS Top 20: 17.1)?</p>	<p>The organization has not defined its processes for conducting an assessment of the knowledge, skills, and abilities of its workforce.</p>	<p>The organization has defined its processes for conducting an assessment of the knowledge, skills, and abilities of its workforce to determine its awareness and specialized training needs and periodically updating its assessment to account for a changing risk environment.</p>	<p>The organization has conducted an assessment of the knowledge, skills, and abilities of its workforce to tailor its awareness and specialized training and has identified its skill gaps. Further, the organization periodically updates its assessment to account for a changing risk environment. In addition, the assessment serves as a key input to updating the organization’s awareness and training strategy/plans.</p>	<p>The organization has addressed all of its identified knowledge, skills, and abilities gaps. Skilled personnel have been hired and/or existing staff trained to develop and implement the appropriate metrics to measure the effectiveness of the organization’s training program in closing identified skill gaps.</p>	<p>The organization’s personnel collectively possess a training level such that the organization can demonstrate that security incidents resulting from personnel actions or inactions are being reduced over time.</p>

<b>Protect</b>	<b>Security Training</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
<b>Maturity Level</b>				<b>X</b>	

Protect	Security Training				
	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
35. To what extent does the organization utilize a security awareness and training strategy/plan that leverages its organizational skills assessment and is adapted to its culture? (Note: the strategy/plan should include the following components: the structure of the awareness and training program, priorities, funding, the goals of the program, target audiences, types of courses/material for each audience, use of technologies (such as email advisories, intranet updates/wiki pages/social media, web based training, phishing simulation tools), frequency of training, and deployment methods (NIST 80053: AT-1; NIST 800-50: Section 3)).	The organization has not defined its security awareness and training strategy/plan for developing, implementing, and maintaining a security awareness and training program that is tailored to its mission and risk environment.	The organization has defined its security awareness and training strategy/plan for developing, implementing, and maintaining a security awareness and training program that is tailored to its mission and risk environment.	The organization has consistently implemented its organization-wide security awareness and training strategy and plan.	The organization monitors and analyzes qualitative and quantitative performance measures on the effectiveness of its security awareness and training strategies and plans. The organization ensures that data supporting metrics are obtained accurately, consistently, and in a reproducible format.	The organization's security awareness and training activities are integrated across other security-related domains. For instance, common risks and control weaknesses, and other outputs of the agency's risk management and continuous monitoring activities inform any updates that need to be made to the security awareness and training program.
<b>Maturity Level</b>				<b>X</b>	
36. To what degree have security awareness and specialized security training policies and procedures been defined and implemented? (Note: the maturity level should take into consideration the maturity questions 37 and 38 below) (NIST 800-53: AT-1 through AT-4; and NIST 800-50).	The organization has not developed, documented, and disseminated its policies and procedures for security awareness and specialized security training.	The organization has developed, documented, and disseminated its comprehensive policies and procedures for security awareness and specialized security training that are consistent with FISMA requirements.	The organization consistently implements its policies and procedures for security awareness and specialized security training.	The organization monitors and analyzes qualitative and quantitative performance measures on the effectiveness of its security awareness and training policies and procedures. The organization ensures that data supporting metrics are obtained accurately, consistently, and in a reproducible format.	On a near real-time basis, the organization actively adapts its security awareness and training policies, procedures, and program to a changing cybersecurity landscape and provides awareness and training, as appropriate, on evolving and sophisticated threats.

<b>Protect</b>	<b>Security Training</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
<b>Maturity Level</b>				<b>X</b>	

<b>Protect</b>	<b>Security Training</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
37. To what degree does the organization ensure that security awareness training is provided to all system users and is tailored based on its organizational requirements, culture, and types of information systems? (Note: Awareness training topics should include, as appropriate: consideration of organizational policies, roles and responsibilities, secure e-mail, browsing, and remote access practices, mobile device security, secure use of social media, phishing, malware, physical security, and security incident reporting (NIST 800-53: AT-2; FY 17 CIO FISMA Metrics: 2.23; NIST 800-50: 6.2; SANS Top 20: 17.4).	The organization has not defined its security awareness material based on its organizational requirements, culture, and the types of information systems that its users have access to. In addition, the organization has not defined its processes for ensuring that all information system users are provided security awareness training prior to system access and periodically thereafter. Furthermore, the organization has not defined its processes for evaluating and obtaining feedback on its security awareness and training program and using that information to make continuous improvements.	The organization has defined and tailored its security awareness material and delivery methods based on its organizational requirements, culture, and the types of information systems that its users have access to. In addition, the organization has defined its processes for ensuring that all information system users including contractors are provided security awareness training prior to system access and periodically thereafter. In addition, the organization has defined its processes for evaluating and obtaining feedback on its security awareness and training program and using that information to make continuous improvements.	The organization ensures that all systems users complete the organization's security awareness training (or a comparable awareness training for contractors) prior to system access and periodically thereafter and maintains completion records. The organization obtains feedback on its security awareness and training program and uses that information to make improvements.	The organization measures the effectiveness of its awareness training program by, for example, conducting phishing exercises and following up with additional awareness or training, and/or disciplinary action, as appropriate.	The organization has institutionalized a process of continuous improvement incorporating advanced security awareness practices and technologies.
<b>Maturity Level</b>		<b>X</b> See note 1 above			

<b>Protect</b>	<b>Security Training</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
38. To what degree does the organization ensure that specialized security training is provided to all individuals with significant security responsibilities (as defined in the organization's security policies and procedures) (NIST 800-53: AT-3 and AT-4; FY 17 CIO FISMA Metrics: 2.23)?	The organization has not defined its security training material based on its organizational requirements, culture, and the types of roles with significant security responsibilities. In addition, the organization has not defined its processes for ensuring that all personnel with significant security roles and responsibilities are provided specialized security training prior to information system access or performing assigned duties and periodically thereafter.	The organization has defined its security training material based on its organizational requirements, culture, and the types of roles with significant security responsibilities. In addition, the organization has defined its processes for ensuring that all personnel with assigned security roles and responsibilities are provided specialized security training prior to information system access or performing assigned duties and periodically thereafter.	The organization ensures individuals with significant security responsibilities are provided specialized security training prior to information system access or performing assigned duties and periodically thereafter and maintains appropriate records. Furthermore, the organization maintains specialized security training completion records.	The organization obtains feedback on its security training content and makes updates to its program, as appropriate. In addition, the organization measures the effectiveness of its specialized security training program by, for example, conducting phishing exercises and following up with additional awareness or training, and/or disciplinary action, as appropriate.	The organization has institutionalized a process of continuous improvement incorporating advanced security training practices and technologies.
<b>Maturity Level</b>		<b>X</b> See note 1 above			

<b>Protect</b>	<b>Security Training</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
<p>39. Provide any additional information on the effectiveness (positive or negative) of the organization's security training program that was not noted in the questions above. Taking into consideration the maturity level generated from the questions above and based on all testing performed, is the security training program effective?</p>	<p>Role-based Security Training Records were maintained for employees and contractors with assigned security roles and responsibilities. However, without a CIO to monitor the program and continuously assess risk, the Council has room to improve and there is a risk that the program could not be effective or trainings not managed and measured.</p> <p>However, more progress needs to be made. As a result, the Council's Security Training Management program is not effective.</p>				
<p><b>Overall Score for Security Training Management</b></p>			<p><b>X</b></p>		



<b>Detect</b>	<b>ISCM</b>				
<b>Questions</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
40. To what extent does the organization utilize an information security continuous monitoring (ISCM) strategy that addresses ISCM requirements and activities at each organizational tier and helps ensure an organizationwide approach to ISCM (NIST SP 800-137: Sections 3.1 and 3.6)?	The organization has not developed and communicated its ISCM strategy.	The organization has developed and communicated its ISCM strategy that includes: i) considerations at the organization/business process level, ii) considerations at the information system level, and iii) processes to review and update the ISCM program and strategy. At the organization/business process level, the ISCM strategy defines how ISCM activities support risk management in accordance with organizational risk tolerance. At the information system level, the ISCM strategy addresses monitoring security controls for effectiveness, monitoring for security status, and reporting findings.	The organization's ISCM strategy is consistently implemented at the organization/business process and information system levels. In addition, the strategy supports clear visibility into assets, awareness into vulnerabilities, up-to-date threat information, and mission/business impacts. The organization also consistently captures lessons learned to make improvements to the ISCM strategy.	The organization monitors and analyzes qualitative and quantitative performance measures on the effectiveness of its ISCM strategy and makes updates, as appropriate. The organization ensures that data supporting metrics are obtained accurately, consistently, and in a reproducible format.	The organization's ISCM strategy is fully integrated with its risk management, configuration management, incident response, and business continuity functions.
<b>Maturity Level</b>		<b>X</b> See note 1 above			

<b>Detect</b>	<b>ISCM</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
41. To what extent does the organization utilize ISCM policies and procedures to facilitate organization-wide, standardized processes in support of the ISCM strategy? ISCM policies and procedures address, at a minimum, the following areas: ongoing assessments and monitoring of security controls; collecting security related information required for metrics, assessments, and reporting; analyzing ISCM data, reporting findings, and reviewing and updating the ISCM strategy (NIST SP 800-53: CA-7) (Note: The overall maturity level should take into consideration the maturity of question 43)?	The organization has not defined its ISCM policies and procedures, at a minimum, in one or more of the specified areas.	The organization's ISCM policies and procedures have been defined and communicated for the specified areas. Further, the policies and procedures have been tailored to the organization's environment and include specific requirements.	The organization's ISCM policies and procedures have been consistently implemented for the specified areas. The organization also consistently captures lessons learned to make improvements to the ISCM policies and procedures.	The organization monitors and analyzes qualitative and quantitative performance measures on the effectiveness of its ISCM policies and procedures and makes updates, as appropriate. The organization ensures that data supporting metrics are obtained accurately, consistently, and in a reproducible format.	The organization's ISCM policies and procedures are fully integrated with its risk management, configuration management, incident response, and business continuity functions.
<b>Maturity Level</b>		<b>X</b> See note 1 above			

Detect	ISCM				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
42. To what extent have ISCM stakeholders and their roles, responsibilities, levels of authority, and dependencies been defined and communicated across the organization (NIST SP 800-53: CA-1; NIST SP 800-137; and FY 2017 CIO FISMA Metrics)?	Roles and responsibilities have not been fully defined and communicated across the organization, including appropriate levels of authority and dependencies.	The organization has defined and communicated the structures of its ISCM team, roles and responsibilities of ISCM stakeholders, and levels of authority and dependencies.	Defined roles and responsibilities are consistently implemented and teams have adequate resources (people, processes, and technology) to effectively implement ISCM activities.	The organization's staff is consistently collecting, monitoring, and analyzing qualitative and quantitative performance measures across the organization and reporting data on the effectiveness of the organization's ISCM program.	
Maturity Level		X See notes 1 above			

Detect	ISCM				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
<p>43. How mature are the organization's processes for performing ongoing assessments, granting system authorizations, and monitoring security controls (NIST SP 800-137: Section 2.2; NIST SP 800-53: CA-2, CA-6, and CA-7; NIST Supplemental Guidance on Ongoing Authorization; OMB M-14-03)?</p>	<p>The organization has not defined its processes for performing ongoing security control assessments, granting system authorizations, and monitoring security controls for individual systems.</p>	<p>The organization has defined its processes for performing ongoing security control assessments, granting system authorizations, and monitoring security controls for individual systems.</p>	<p>The organization has consistently implemented its processes for performing ongoing security control assessments, granting system authorizations, and monitoring security controls to provide a view of the organizational security posture as well as each system's contribution to said security posture. All security control classes (management, operational, technical) and types (common, hybrid, and system-specific) are assessed and monitored.</p>	<p>The organization utilizes the results of security control assessments and monitoring to maintain ongoing authorizations of information systems.</p>	<p>The ISCM program achieves cost-effective IT security objectives and goals and influences decision making that is based on cost, risk, and mission impact.</p>
<p><b>Maturity Level</b></p>		<p style="text-align: center;"><b>X</b> See notes 1 above</p>			

<b>Detect</b>	<b>ISCM</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
44. How mature is the organization's process for collecting and analyzing ISCM performance measures and reporting findings (NIST SP 800-137)?	The organization has not identified and defined the qualitative and quantitative performance measures that will be used to assess the effectiveness of its ISCM program, achieve situational awareness, and control ongoing risk. Further, the organization has not defined how ISCM information will be shared with individuals with significant security responsibilities and used to make risk based decisions.	The organization has identified and defined the performance measures and requirements that will be used to assess the effectiveness of its ISCM program, achieve situational awareness, and control ongoing risk. In addition, the organization has defined the format of reports, frequency of reports, and the tools used to provide information to individuals with significant security responsibilities.	The organization is consistently capturing qualitative and quantitative performance measures on the performance of its ISCM program in accordance with established requirements for data collection, storage, analysis, retrieval, and reporting.	The organization is able to integrate metrics on the effectiveness of its ISCM program to deliver persistent situational awareness across the organization, explain the environment from both a threat/vulnerability and risk/impact perspective, and cover mission areas of operations and security domains.	On a near real-time basis, the organization actively adapts its ISCM program to a changing cybersecurity landscape and responds to evolving and sophisticated threats in a timely manner.
<b>Maturity Level</b>		<b>X</b> See notes 1 above			

<b>Detect</b>	<b>ISCM</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
45. Provide any additional information on the effectiveness (positive or negative) of the organization's ISCM program that was not noted in the questions above. Taking into consideration the maturity level generated from the questions above and based on all testing performed, is the ISCM program effective?	<p>The ISCM policies were implemented; however, the CIO position was vacant for 7 months of the year which puts program at potential risk from a lack of monitoring and oversight perspective, as well as ability to react to change.</p> <p>However, more progress needs to be made. As a result, the Council's ISCM program is not effective.</p>				
<b>Overall Score for ISCM</b>		<b>X</b>			

<b>Respond</b>	<b>Incident Response</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
46. To what extent has the organization defined and implemented its incident response policies, procedures, plans, and strategies, as appropriate, to respond to cybersecurity events (NIST SP 800-53: IR-1; NIST 800-61 Rev. 2; FY 2017 CIO FISMA Metrics: 4.1, 4.3, and 4.6) (Note: The overall maturity level should take into consideration the maturity of questions 48 - 52)?	The organization has not defined its incident response policies, procedures, plans, and strategies in one or more of the following areas: incident response planning, to include organizational specific considerations for major incidents, incident response training and testing, incident detection and analysis, incident containment, eradication, and recovery; incident coordination, information sharing, and reporting.	The organization's incident response policies, procedures, plans, and strategies have been defined and communicated. In addition, the organization has established and communicated an enterprise level incident response plan.	The organization consistently implements its incident response policies, procedures, plans, and strategies. Further, the organization is consistently capturing and sharing lessons learned on the effectiveness of its incident response policies, procedures, strategy and processes to update the program.	The organization monitors and analyzes qualitative and quantitative performance measures on the effectiveness of its incident response policies, procedures, plans, and strategies, as appropriate. The organization ensures that data supporting metrics are obtained accurately, consistently, and in a reproducible format.	The organization's incident response program, policies, procedures, strategies, plans are fully integrated with risk management, continuous monitoring, continuity of operations, and other mission/business areas, as appropriate.

<b>Respond</b>	<b>Incident Response</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
<b>Maturity Level</b>		<b>X</b> See note 1 above			
47. To what extent have incident response team structures/models, stakeholders, and their roles, responsibilities, levels of authority, and dependencies been defined and communicated across the organization (NIST SP 800-53; NIST SP 800-83; NIST SP 800-61 Rev. 2; OMB M-16-03; OMB M-16-04; FY 2017 CIO FISMA Metrics: 1.6 and 4.5; and US-CERT Federal Incident Notification Guidelines)?	Roles and responsibilities have not been fully defined and communicated across the organization, including appropriate levels of authority and dependencies.	The organization has defined and communicated the structures of its incident response teams, roles and responsibilities of incident response stakeholders, and associated levels of authority and dependencies. In addition, the organization has designated a principal security operations center or equivalent organization that is accountable to agency leadership, DHS, and OMB for all incident response activities.	Defined roles and responsibilities are consistently implemented and teams have adequate resources (people, processes, and technology) to consistently implement incident response activities.	The organization has assigned responsibility for monitoring and tracking the effectiveness of incident response activities. Staff is consistently collecting, monitoring, and analyzing qualitative and quantitative performance measures on the effectiveness of incident response activities.	
<b>Maturity Level</b>		<b>X</b> See note 1 above			

<b>Respond</b>	<b>Incident Response</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
48. How mature are the organization's processes for incident detection and analysis? (NIST 800-53: IR-4 and IR-6; NIST SP 800-61 Rev. 2; US-CERT Incident Response Guidelines)	The organization has not defined a common threat vector or taxonomy for classifying incidents and its processes for detecting, analyzing, and prioritizing incidents.	The organization has defined a common threat vector taxonomy and developed handling procedures for specific types of incidents, as appropriate. In addition, the organization has defined its processes and supporting technologies for detecting and analyzing incidents, including the types of precursors and indicators and how they are generated and reviewed, and for prioritizing incidents.	The organization consistently utilizes its threat vector taxonomy to classify incidents and consistently implements its processes for incident detection, analysis, and prioritization. In addition, the organization consistently implements, and analyzes precursors and indicators generated by, for example, the following technologies: intrusion detection/prevention, security information and event management (SIEM), antivirus and antispam software, and file integrity checking software.	The organization utilizes profiling techniques to measure the characteristics of expected activities on its networks and systems so that it can more effectively detect security incidents. Examples of profiling include running file integrity checking software on hosts to derive checksums for critical files and monitoring network bandwidth usage to determine what the average and peak usage levels are on various days and times. Through profiling techniques, the organization maintains a comprehensive baseline of network operations and expected data flows for users and systems.	
<b>Maturity Level</b>		<b>X</b> See note 1 above			



Respond	Incident Response				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
49. How mature are the organization's processes for incident handling (NIST 800-53: IR-4)	The organization has not defined its processes for incident handling to include: containment strategies for various types of major incidents, eradication activities to eliminate components of an incident and mitigate any vulnerabilities that were exploited, and recovery of systems.	The organization has developed containment strategies for each major incident type. In developing its strategies, the organization takes into consideration: the potential damage to and theft of resources, the need for evidence preservation, service availability, time and resources needed to implement the strategy, effectiveness of the strategy, and duration of the solution. In addition, the organization has defined its processes to eradicate components of an incident, mitigate any vulnerabilities that were exploited, and recover system operations.	The organization consistently implements its containment strategies, incident eradication processes, processes to remediate vulnerabilities that may have been exploited on the target system(s), and recovers system operations.	The organization manages and measures the impact of successful incidents and is able to quickly mitigate related vulnerabilities on other systems so that they are not subject to exploitation of the same vulnerability.	The organization utilizes dynamic reconfiguration (e.g., changes to router rules, access control lists, and filter rules for firewalls and gateways) to stop attacks, misdirect attackers, and to isolate components of systems.
<b>Maturity Level</b>		<b>X</b> See note 1 above			

Respond	Incident Response				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
<p>50. To what extent does the organization ensure that incident response information is shared with individuals with significant security responsibilities and reported to external stakeholders in a timely manner (FISMA; OMB M-16-03; NIST 800-53: IR-6; US-CERT Incident Notification Guidelines)</p>	<p>The organization has not defined how incident response information will be shared with individuals with significant security responsibilities or its processes for reporting security incidents to USCERT and other stakeholders (e.g., Congress and the Inspector General, as applicable) in a timely manner.</p>	<p>The organization has defined its requirements for personnel to report suspected security incidents to the organization's incident response capability within organization defined timeframes. In addition, the organization has defined its processes for reporting security incident information to US-CERT, law enforcement, the Congress (for major incidents) and the Office of Inspector General, as appropriate.</p>	<p>The organization consistently shares information on incident activities with internal stakeholders. The organization ensures that security incidents are reported to US-CERT, law enforcement, the Office of Inspector General, and the Congress (for major incidents) in a timely manner.</p>	<p>Incident response metrics are used to measure and manage the timely reporting of incident information to organizational officials and external stakeholders.</p>	
<p><b>Maturity Level</b></p>		<p><b>X</b> See note 1 above</p>			
<p>51. To what extent does the organization collaborate with stakeholders to ensure on-site, technical assistance/surge capabilities can be leveraged for quickly responding to incidents and enter into contracts, as appropriate, for incident response support (FY 2017 CIO FISMA Metrics: 4.4; NIST SP 800-86).</p>	<p>The organization has not defined how it will collaborate with DHS and other parties, as appropriate, to provide on-site, technical assistance/surge resources/special capabilities for quickly responding to incidents. In addition, the organization has not defined how it plans to utilize DHS' Einstein program for intrusion detection/prevention capabilities for traffic entering and leaving the organization's networks.</p>	<p>The organization has defined how it will collaborate with DHS and other parties, as appropriate, to provide on-site, technical assistance/surge resources/special capabilities for quickly responding to incidents. This includes identification of incident response services that may need to be procured to support organizational processes. In addition, the organization has defined how it plans to utilize DHS' Einstein program for intrusion detection/prevention capabilities for traffic entering and leaving the organization's networks.</p>	<p>The organization consistently utilizes on-site, technical assistance/surge capabilities offered by DHS or ensures that such capabilities are in place and can be leveraged when needed. In addition, the organization has entered into contractual relationships in support of incident response processes (e.g., for forensic support), as needed. The organization is utilizing DHS' Einstein program for intrusion detection/prevention capabilities for traffic entering and leaving its network.</p>		

<b>Respond</b>	<b>Incident Response</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
<b>Maturity Level</b>		<b>X</b> See note 1 above			

<b>Respond</b>	<b>Incident Response</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
<p>52. To what degree does the organization utilize the following technology to support its incident response program?</p> <p>-Web application protections, such as web application firewalls -Event and incident management, such as intrusion detection and prevention tools, and incident tracking and reporting tools -Aggregation and analysis, such as security information and event management (SIEM) products -Malware detection, such as antivirus and antispam software technologies Information management, such as data loss prevention File integrity and endpoint and server security tools (NIST SP 800-137; NIST SP 800-61, Rev. 2)</p>	<p>The organization has not identified and defined its requirements for incident response technologies needed in one or more of the specified areas and relies on manual/procedural methods in instances where automation would be more effective.</p>	<p>The organization has identified and fully defined its requirements for the incident response technologies it plans to utilize in the specified areas. While tools are implemented to support some incident response activities, the tools are not interoperable to the extent practicable, do not cover all components of the organization's network, and/or have not been configured to collect and retain relevant and meaningful data consistent with the organization's incident response policy, plans, and procedures.</p>	<p>The organization has consistently implemented its defined incident response technologies in the specified areas. In addition, the technologies utilized are interoperable to the extent practicable, cover all components of the organization's network, and have been configured to collect and retain relevant and meaningful data consistent with the organization's incident response policy, procedures, and plans.</p>	<p>The organization uses technologies for monitoring and analyzing qualitative and quantitative performance across the organization and is collecting, analyzing, and reporting data on the effectiveness of its technologies for performing incident response activities.</p>	<p>The organization has institutionalized the implementation of advanced incident response technologies for analysis of trends and performance against benchmarks (e.g., simulation based technologies to continuously determine the impact of potential security incidents to its IT assets) and adjusts incident response processes and security measures accordingly.</p>
<b>Maturity Level</b>		<b>X</b> See note 1 above			

Respond	Incident Response				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
53. Provide any additional information on the effectiveness (positive or negative) of the organization's incident response program that was not noted in the questions above. Taking into consideration the maturity level generated from the questions above and based on all testing performed, is the incident response program effective?	<p>The CIO position was not consistently filled during the evaluation period. Without a CIO, the Council lacked the expertise to monitor security risks and to change security controls to mitigate new rising threats. The Council's policies and procedures were written and approved in May 2017.</p> <p>As a result, the Council's Incident Response Management program is not effective.</p>				
<b>Additional Information</b>		<b>X</b>			

Recover	Contingency Planning				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
<p>54. To what extent have roles and responsibilities of stakeholders involved in information systems contingency planning been defined and communicated across the organization, including appropriate delegations of authority (NIST 800-53: CP-1 and CP-2; NIST 800-34; NIST 800-84; FCD-1: Annex B)?</p>	<p>Roles and responsibilities have not been fully defined and communicated across the organization, including appropriate delegations of authority.</p>	<p>Roles and responsibilities of stakeholders have been fully defined and communicated across the organization, including appropriate delegations of authority. In addition, the organization has designated appropriate teams to implement its contingency planning strategies.</p>	<p>Roles and responsibilities of stakeholders involved in information system contingency planning have been fully defined and communicated across the organization. In addition, the organization has established appropriate teams that are ready to implement its information system contingency planning strategies. Stakeholders and teams have adequate resources (people, processes, and technology) to effectively implement system contingency planning activities.</p>	<p>The organization has assigned responsibility for monitoring and tracking the effectiveness of information systems contingency planning activities. Staff is consistently collecting, monitoring, and analyzing qualitative and quantitative performance measures on the effectiveness of information system contingency planning program activities, including validating the operability of an IT system or system component to support essential functions during a continuity event.</p>	
<p>Maturity Level</p>		<p><b>X</b> See note 1 above</p>			

Recover	Contingency Planning				
	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
55. To what extent has the organization defined and implemented its information system contingency planning program through policies, procedures, and strategies, as appropriate (Note: Assignment of an overall maturity level should take into consideration the maturity of questions 56-60) (NIST SP 800-34; NIST SP 800-161).	The organization has not defined its policies, procedures and strategies, as appropriate, for information system contingency planning. Policies/procedures/strategies do not sufficiently address, at a minimum, the following areas: roles and responsibilities, scope, resource requirements, training, exercise and testing schedules, plan maintenance, technical contingency planning considerations for specific types of systems, schedules, backups and storage, and use of alternate processing and storage sites.	The organization has defined its policies, procedures, and strategies, as appropriate, for information system contingency planning, including technical contingency planning considerations for specific types of systems, such as cloud-based systems, client/server, telecommunications, and mainframe based systems. Areas covered include, at a minimum, roles and responsibilities, scope, resource requirements, training, exercise and testing schedules, plan maintenance schedules, backups and storage, and use of alternate processing and storage sites.	The organization consistently implements its defined information system contingency planning policies, procedures, and strategies. In addition, the organization consistently implements technical contingency planning considerations for specific types of systems, including but not limited to methods such as server clustering and disk mirroring. Further, the organization is consistently capturing and sharing lessons learned on the effectiveness of information system contingency planning policies, procedures, strategy, and processes to update the program.	The organization understands and manages its information and communications technology (ICT) supply chain risks related to contingency planning activities. As appropriate, the organization integrates ICT supply chain concerns into its contingency planning policies and procedures, defines and implements a contingency plan for its ICT supply chain infrastructure, applies appropriate ICT supply chain controls to alternate storage and processing sites, considers alternate telecommunication service providers for its ICT supply chain infrastructure and to support critical information systems.	The information system contingency planning program is fully integrated with the enterprise risk management program, strategic planning processes, capital allocation/budgeting, and other mission/business areas and embedded into daily decision making across the organization.
<b>Maturity Level</b>		<b>X</b> See note 1 above			

Recover	Contingency Planning				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
56. To what degree does the organization ensure that the results of business impact analyses are used to guide contingency planning efforts (NIST 800-53: CP-2; NIST 800-34, Rev. 1, 3.2, FIPS 199, FCD1, OMB M-17-09)?	Processes for conducting organizational and system level BIAs and for incorporating the results into strategy and plan development efforts have not been defined in policies and procedures and are performed in an ad-hoc, reactive manner.	Processes for conducting organizational and system level BIAs and for incorporating the results into strategy and plan development efforts have been defined.	The organization incorporates the results of organizational and system level BIAs into strategy and plan development efforts consistently. System level BIAs are integrated with the organizational level BIA and include: characterization of all system components, determination of missions/business processes and recovery criticality, identification of resource requirements, and identification of recovery priorities for system resources. The results of the BIA are consistently used to determine contingency planning requirements and priorities, including mission essential functions/high-value assets.		
<b>Maturity Level</b>		<b>X</b> See note 1 above			



Recover	Contingency Planning				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
57. To what extent does the organization ensure that information system contingency plans are developed, maintained, and integrated with other continuity plans (NIST 800-53: CP-2; NIST 800-34)?	Processes for information system contingency plan development and maintenance have not been defined in policies and procedures; the organization has not developed templates to guide plan development; and system contingency plans are developed in an adhoc manner with limited integration with other continuity plans.	Processes for information system contingency plan development, maintenance, and integration with other continuity areas have been defined and include the following phases: activation and notification, recovery, and reconstitution.	Information system contingency plans are consistently developed and implemented for systems, as appropriate, and include organizational and system level considerations for the following phases: activation and notification, recovery, and reconstitution. In addition, system level contingency planning development/maintenance activities are integrated with other continuity areas including organization and business process continuity, disaster recovery planning, incident management, insider threat implementation plan (as appropriate), and occupant emergency plans.	The organization is able to integrate metrics on the effectiveness of its information system contingency plans with information on the effectiveness of related plans, such as organization and business process continuity, disaster recovery, incident management, insider threat implementation, and occupant emergency, as appropriate to deliver persistent situational awareness across the organization.	The information system contingency planning activities are fully integrated with the enterprise risk management program, strategic planning processes, capital allocation/budgeting, and other mission/business areas and embedded into daily decision making across the organization.
<b>Maturity Level</b>		<b>X</b> See note 1 above			

<b>Recover</b>	<b>Contingency Planning</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
58. To what extent does the organization perform tests/exercises of its information system contingency planning processes (NIST 800-34; NIST 800-53: CP-3, CP-4)?	Processes for information system contingency plan testing/exercises have not been defined and contingency plan tests for systems are performed in an ad-hoc, reactive manner.	Processes for information system contingency plan testing and exercises have been defined and include, as applicable, notification procedures, system recovery on an alternate platform from backup media, internal and external connectivity, system performance using alternate equipment, restoration of normal procedures, and coordination with other business areas/continuity plans, and tabletop and functional exercises.	Processes for information system contingency plan testing and exercises are consistently implemented. ISCP testing and exercises are integrated, to the extent practicable, with testing of related plans, such as incident response plan/COOP/BCP.	The organization employs automated mechanisms to more thoroughly and effectively test system contingency plans.	The organization coordinates information system contingency plan testing with organizational elements responsible for related plans. In addition, the organization coordinates plan testing with external stakeholders (e.g., ICT supply chain partners/providers), as appropriate.
<b>Maturity Level</b>		<b>X</b> See note 1 above			

Recover	Contingency Planning				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
59. To what extent does the organization perform information system backup and storage, including use of alternate storage and processing sites, as appropriate (NIST 80053: CP-6, CP-7, CP-8, and CP-9; NIST SP 800-34: 3.4.1, 3.4.2, 3.4.3; FCD1; NIST CSF: PR.IP4; and NARA guidance on information systems security records)?	Processes, strategies, and technologies for information system backup and storage, including the use of alternate storage and processing sites and redundant array of independent disks (RAID), as appropriate, have not been defined. Information system backup and storage is performed in an ad-hoc, reactive manner.	Processes, strategies, and technologies for information system backup and storage, including use of alternate storage and processing sites and RAID, as appropriate, have been defined. The organization has considered alternative approaches when developing its backup and storage strategies, including cost, maximum downtimes, recovery priorities, and integration with other contingency plans.	The organization consistently implements its processes, strategies, and technologies for information system backup and storage, including the use of alternate storage and processing sites and RAID, as appropriate. Alternate processing and storage sites are chosen based upon risk assessments which ensure the potential disruption of the organization's ability to initiate and sustain operations is minimized, and are not subject to the same physical and/or cybersecurity risks as the primary sites. In addition, the organization ensures that alternate processing and storage facilities are configured with information security safeguards equivalent to those of the primary site. Furthermore, backups of information at the user- and system-levels are consistently performed and the confidentiality, integrity, and availability of this information is maintained.		
<b>Maturity Level</b>		<b>X</b> See note 1 above			

<b>Recover</b>	<b>Contingency Planning</b>				
<b>Question</b>	<b>Maturity Level</b>				
	<b>Ad Hoc</b>	<b>Defined</b>	<b>Consistently Implemented</b>	<b>Managed and Measurable</b>	<b>Optimized</b>
60. To what level does the organization ensure that information on the planning and performance of recovery activities is communicated to internal stakeholders and executive management teams and used to make risk based decisions (CSF: RC.CO-3; NIST 800-53: CP-2, IR-4)?	The organization has not defined how the planning and performance of recovery activities are communicated to internal stakeholders and executive management teams and used to make risk based decisions.	The organization has defined how the planning and performance of recovery activities are communicated to internal stakeholders and executive management teams.	Information on the planning and performance of recovery activities is consistently communicated to relevant stakeholders and executive management teams, who utilize the information to make risk based decisions.	Metrics on the effectiveness of recovery activities are communicated to relevant stakeholders and the organization has ensured that the data supporting the metrics are obtained accurately, consistently, and in a reproducible format.	
<b>Maturity Level</b>		<b>X</b> See note 1 above			

Recover	Contingency Planning				
Question	Maturity Level				
	Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
<p>61. Provide any additional information on the effectiveness (positive or negative) of the organization's contingency planning program that was not noted in the questions above. Taking into consideration the maturity level generated from the questions above and based on all testing performed, is the contingency program effective?</p>	<p>The CIO position was not consistently filled during the evaluation period. Without a CIO, the Council lacked the expertise to monitor security risks and to change security controls to mitigate new rising threats.</p> <p>As a result, the Council's Contingency Planning is not effective.</p>				
<p><b>Overall Score for Contingency Planning</b></p>		<p><b>X</b></p>			

The Council’s information security program and practices was classified into five maturity model levels: ad hoc, defined, consistently implemented, managed and measurable, and optimized. The FISMA Reporting Metrics were aligned with the five Cybersecurity Functions. We found the overall maturity level for the Council as “Defined.” The table below shows the counts for the five Cybersecurity Functions.

Cybersecurity Function	Maturity Level	Maturity Level Counts				
		Ad Hoc	Defined	Consistently Implemented	Managed and Measurable	Optimized
Function 1: Identify- Risk Management	Defined	-	10	2	-	-
Function 2A: Protect - Configuration Management	Defined	-	6	2	-	-
Function 2B: Protect- Identify and Access Management	Defined	-	9	-	-	-
Function 2C: Protect- Security Training	Managed and Measurable	-	2	-	4	-
Function 3: Detect- ISCM	Defined	-	5	-	-	-
Function 4: Respond- Incident Response	Defined	-	7	-	-	-
Function 5: Recover- Contingency Planning	Defined	-	7	-	-	-
<b>Overall Maturity Level</b>	<b>Defined</b>					

**Appendix II: Management's Response**



## Gulf Coast Ecosystem Restoration Council

October 30, 2017

RMA Associates, LLC  
1005 N. Glebe Road, Suite 210  
Arlington, Virginia 22201

Re: Gulf Coast Ecosystem Restoration Council (Council) Federal Information Security Modernization Act of 2014 Fiscal Year 2017 Evaluation

Gentlemen:

In response to the Council Federal Information Security Modernization Act of 2014 Fiscal Year 2017 Evaluation, the Council agrees with the report that consistent with applicable FISMA requirements, OMB policy and guidance, and NIST standards and guidelines, the Council's information security program and practices were established and have been maintained for the five Cybersecurity Functions and seven FISMA Metric Domains. This program included the implementation of a defined Risk Management Framework that implements NIST defined security controls and periodic audits which has resulted in the Council's ability to manage organizational risk and implement and maintain an effective information security program. In addition the Council worked to ensure that a qualified individual was assigned as the Chief Information Officer to ensure the information security program is effective and consistently implemented across the Council's systems.

The Council also does not dispute the finding that the Council's information security program and practices were formalized and documented but not consistently implemented for the period July 1, 2016 through June 30, 2017. As the report states, the Council has already taken corrective action to correct the deficiency, and will continue its efforts to consistently implement, manage and measure its IT security program at an optimized level in order to support projects and programs to achieve the goals and objectives of the RESTORE Act for restoration in the Gulf Coast region.

Ben Scaggs  
Acting Executive Director





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