

# Memorandum



CITY OF DALLAS  
(Report No. A18-010)

DATE: June 15, 2018

TO: Honorable Mayor and Members of the City Council

SUBJECT: Audit Follow-Up of Prior Audit Recommendations – Audit of the Design of the City of Dallas’ Pandemic Influenza Continuity of Operations Basic Plan<sup>1</sup>

Between Fiscal Year (FY) 2013 and FY 2017, the Office of Emergency Management (OEM), with the assistance of a consulting firm and certain department directors, identified and prioritized City of Dallas’ (City) mission essential functions and updated the City’s Continuity of Operations (COOP) Basic Plan and department specific annexes (refer to textbox). This updated information was used by the Department of Communication and Information Services (CIS) to develop a framework for a comprehensive Disaster Recovery Plan (DRP). Although annual updates are required, in FY 2017 most of the departments’ annexes were not updated.

Despite measurable progress by OEM and CIS (see Attachment II), the three recommendations (page 2) included in the original audit, *Audit of the Design of the City of Dallas’ Pandemic Influenza Continuity of Operations Basic Plan*, Report No. A13-009, September 13, 2013, were not fully implemented.

## Background

Continuity of operations provides procedures and guidance to sustain an organization’s mission essential functions at an alternate site for up to 30 days; mandated by Federal directives.

**Source:** National Institute of Standards and Technology (NIST), SP 800-34 *Contingency Planning Guide for Federal Information Systems*, Chapter 2, Page 12

The City of Dallas’ (City) Continuity of Operations (COOP) Basic Plan was initially titled the Pandemic Influenza Continuity of Operations Basic Plan to show compliance with the use of the Federal grant designed to support emergency operations. The City’s COOP Basic Plan; however, is broader and endeavors to address all hazards.

The City’s COOP Basic Plan provides an overview of the City’s approach to continuity operations. The City departments’ specific information are included in annexes to the City’s COOP Basic Plan.

**Source:** Office of Emergency Management

<sup>1</sup> We conducted this audit under the authority of the City Charter, Chapter IX, Section 3, and in accordance with the Fiscal Year (FY) 2017 Audit Plan approved by the City Council. This performance audit was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

The audit objective was to evaluate whether, as of December 31, 2017, certain FY 2013 prior audit recommendations were implemented. The audit methodology included requesting management of the Office of Emergency Management and the Department of Communication and Information Services to report on the implementation status of three recommendations which management agreed to implement. The auditors also conducted interviews, reviewed documentation, and performed other tests as deemed necessary.

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### Three Recommendations from the Original Audit

1. The City Manager and/or designated continuity personnel develop and implement the ten Continuity Management Functions of the COOP Plan
  2. The City Manager and/or designated continuity personnel provide periodic updates to the City Council on the project to ensure transparency
  3. The City Manager and the Director of CIS develop a DRP using the information from the ten Continuity Management Functions of the COOP Plan
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As a result, the City may not be able to demonstrate business continuity when faced with disruptions or emergency events that impact Dallas City Hall and/or City related operations. In addition, the City's COOP Basic Plan and the departments' annexes may be ineffective without a comprehensive DRP to support recovery after a disruption or emergency event. The DRP refers to a coordinated strategy involving plan, procedures, and technical measures that enable the recovery of information technology (IT) systems, operations, and data.

Full recommendation implementation required City management to: (1) address 50 critical characteristics identified in the original audit as missing components from the ten Continuity Management Functions; (2) communicate with City Council; and, (3) develop a comprehensive DRP. As of December 31, 2017, this Follow-Up Audit of Prior Audit Recommendations determined 13 of the required elements were implemented, 24 were not implemented, and 13 were no longer considered applicable and were therefore not tested<sup>2</sup>. The detailed recommendation implementation status shows the areas where missing components continue to exist in the continuity planning process and supporting continuity planning elements (See Attachment I).

In addition, without the City's COOP Basic Plan and departments' annexes, CIS did not have all the required information (e.g. list of applications, network needs, and access to key data files) to develop a comprehensive DRP.

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<sup>2</sup> In 2013, the Federal Emergency Management Agency updated the Continuity Assistance Tool (CAT) included in the *Continuity Guidance for Non-Federal Governments (States Territories, Tribes, and Local Government Jurisdictions)*. As a result, some critical characteristics in the 2009 CAT are no longer represented as high priority criteria necessary for functional continuity programs and plans. For this Audit Follow-Up of Prior Audit Recommendations, a missing component no longer identified as a critical characteristic was not tested and is stated as such in Attachment I.

## **Factors Influencing the City's Ability to Fully Establish Business Continuity**

According to OEM and CIS management the following factors influenced the City's ability to fully establish business continuity

- An administrative directive that establishes the City's policy regarding business continuity planning<sup>3</sup> and the COOP Basic Plan at both a citywide and departmental level
- An organizational structure, that clearly defines roles, responsibilities, and accountability
- Dedicated continuity of operations personnel with the appropriate authority and resources
- Departmental commitment to ensure the City's COOP Basic Plan and the departments' annexes are complete, including adequate IT resources and other supplies necessary to restore and maintain essential functions for 30 days; regularly updated (at least annually), and properly tested
- Efficient IT systems to document the departments' annexes and monitor annual updates
- Consensus among departments regarding which IT systems must be restored

The Federal Emergency Management Agency Continuity Guidance Circulars (CGCs) 1 and 2, issued in 2009 and 2010, respectively, and updated in 2013 were the criteria for the initial audit and this Audit Follow-up of Prior Audit Recommendations. The CGCs 1 and 2 provide direction to "non-Federal Governments (States, Territories, Tribes, and Local Government Jurisdictions)" for developing continuity plans and programs. According to the CGC-1, continuity planning is the good business practice of ensuring the execution of essential functions under all circumstances.

Continuity consists of all activities conducted by jurisdictions to ensure that their essential functions can be performed. These efforts include plans and procedures that delineate essential functions; specify succession to office and emergency delegation of authority; provide for the safekeeping of and access to essential records and databases; identify alternate operating strategies; provide for continuity communications; provide for human resources planning; validate these capabilities through test, training, and exercise programs; specify devolution of control and direction; and provide for reconstitution.

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<sup>3</sup> The Business Continuity Plan (BCP) focuses on sustaining an organization's mission/business processes during and after a disruption. A BCP may be used for long-term recovery in conjunction with the COOP plan, allowing for additional functions to come online as resources or time allow. Because mission/business processes use information systems (IS), the business continuity planner must coordinate with IS owners to ensure that the BCP expectations and IS capabilities are matched.

**Source:** NIST, SP 800-34 *Contingency Planning Guide for Federal Information Systems*, Chapter 2, page 8.

Principle 3, Establish Structure, Responsibility, and Authority, of the Standards for Internal Control for the Federal Government by the Comptroller General of the United States (the Green Book) identified the need for management to establish an organizational structure, assign responsibility and delegate authority to achieve the entity's objectives. Specifically:

- Management establishes the organizational structure necessary to enable the entity to plan, execute, control, and assess the organization in achieving its objectives. Management develops the overall responsibilities from the entity's objectives that enable the entity to achieve its objectives and address related risks. [3.02]
- Management establishes reporting lines within an organizational structure so that units can communicate the quality information necessary for each unit to fulfill its overall responsibilities. [3.04]
- Management determines what level of authority each key role needs to fulfill a responsibility. Management delegates authority only to the extent required to achieve the entity's objectives. [3.08]

## **Recommendation I**

We recommend the City Manager in coordination with the Directors of OEM and CIS:

- Develop an administrative directive that establishes the City's policy regarding business continuity planning and the COOP Basic Plan at both a citywide and departmental level
- Establish an organizational structure that clearly defines roles, responsibilities, and accountability related to business continuity planning and the COOP Basic Plan
- Dedicate continuity of operations personnel with the appropriate authority and resources
- Obtain departmental commitment to ensure: (1) the City's COOP Basic Plan and the departments' annexes are complete, including adequate IT resources and other supplies necessary to restore and maintain essential functions for 30 days; (2) regularly updated (at least annually); and, (3) properly tested
- Develop or obtain IT systems to document the departments' annexes and monitor annual updates
- Reach a consensus among departments regarding which IT systems must be restored

## **Recommendation II**

We recommend the City Manager in coordination with the Director of CIS:

- Develop a comprehensive DRP by establishing a formal plan that includes measurable interim milestones to demonstrate progress

## **Recommendation III**

We recommend the City Manager periodically briefs the City Council on the City's business continuity.

Please see Attachment III for management's response to the recommendations.

The Office would like to acknowledge City management and staff for their assistance. If you have any questions or need additional information, please contact me at (214) 670-3222 or Carol A. Smith, First Assistant City Auditor, at (214) 670-4517.

Sincerely,



Craig D. Kinton  
City Auditor

Attachments

C: T. C. Broadnax, City Manager  
Kimberly B. Tolbert, Chief of Staff  
Jon Fortune, Assistant City Manager  
Jo M. (Jody) Puckett, P.E., Interim Assistant City Manager  
William Finch, Director – Department of Communication and Information Services  
Rocky Vaz, Director – Office of Emergency Management

**Elements of a Viable Continuity Capability**

<b>Continuity Management Function<sup>4</sup></b>	<b>Required Elements Identified as Missing Components in the Original Audit</b>	<b>Follow-Up Status (Implemented/ Not Implemented)<sup>5</sup></b>
<b>1 Essential Functions</b>  <i>The limited set of organization level functions that should be continued throughout, or resumed rapidly after, a disruption of normal activities.</i>	(1) The essential functions were not identified using a business process analysis which incorporates the elements of risk, prioritization, and mapping interdependencies inherent in an organization.	<b>Not Implemented</b>
	(2) Specific criteria for defining essential functions were not available for departments to distinguish between general operational functions and those that are critical for continuity planning.	<b>Not Implemented</b>
	(3) Sufficient guidance on how to evaluate recovery times for essential functions was not provided and departments’ identified recovery times based on “criticality.”	<b>Implemented</b>
	(4) The essential functions are missing key information (interim process, phone numbers, vital records, key equipment needs).	<b>Not Implemented</b>
	(5) The manual interim process, related vital records, procurement needs, and security considerations for essential functions are not included.	<b>Implemented</b>

<sup>4</sup> The September 13, 2013 Audit of the Design of the City of Dallas’ Pandemic Influenza Continuity of Operations Basic Plan indicated the Continuity Management Functions: Order of Succession, Delegation of Authority, Continuity Communications and Test, Training and Exercise Programs, were partially satisfied. The remaining six Continuity Management Functions were not satisfied.

<sup>5</sup> In 2013, the Federal Emergency Management Agency updated the Continuity Assistance Tool (CAT) included in the *Continuity Guidance for Non-Federal Governments (States Territories, Tribes, and Local Government Jurisdictions)*. As a result, some critical characteristics in the 2009 CAT are no longer represented as high priority criteria necessary for functional continuity programs and plans. For this Audit Follow-Up of Prior Audit Recommendations, a missing component no longer identified as a critical characteristic was not tested and is stated as such in Attachment I.

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Continuity Management Function	Required Elements Identified as Missing Components in the Original Audit	Follow-Up Status (Implemented/ Not Implemented)
<p><b>2 Orders of Succession</b></p> <p><i>Provisions for the assumption of senior agency offices during an emergency in the event that any of those officials are unavailable to execute their legal duties.</i></p>	<p>(1) The orders of succession are not always three positions deep or identified for certain essential functions.</p> <p>(2) Personnel identified as the primary lead also serve as the backup for other essential functions.</p> <p>(3) The methods of notification for the personnel in the orders of succession are limited to work phone numbers and e-mails. These methods of notification are generally the first form of communications that are not operating or functional during an emergency event.</p> <p>(4) The orders of succession are not reviewed periodically and are not accurate or complete.</p>	<p><b>Not Tested</b></p> <p><b>Not Implemented</b></p> <p><b>Not Implemented</b></p> <p><b>Not Implemented</b></p>

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<b>Continuity Management Function</b>	<b>Required Elements Identified as Missing Components in the Original Audit</b>	<b>Follow-Up Status (Implemented/ Not Implemented)</b>
<p><b>3 Delegations of Authority</b></p> <p><i>Identification, by position, of the authorities for making policy determinations and decisions at headquarters, field levels, and all other organizational locations. Generally, pre-determined delegations of authority will take effect when normal channels of direction have been disrupted and will lapse when these channels have been re-established.</i></p>	<p>(1) Each delegated position’s authority and responsibility for making policy determinations and decisions at headquarters, field levels, and all other organizational locations are not stated.</p> <p>(2) The identified delegates and their roles are not communicated and included appropriately in the Continuity Management Functions including Vital Records, Continuity Facilities, and Continuity Communications.</p> <p>(3) The list of pre-delegates is not reviewed periodically and therefore does not account for changes in personnel.</p>	<p><b>Not Implemented</b></p> <p><b>Not Implemented</b></p> <p><b>Not Implemented</b></p>

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<b>Continuity Management Function</b>	<b>Required Elements Identified as Missing Components in the Original Audit</b>	<b>Follow-Up Status (Implemented/ Not Implemented)</b>
<b>4 Continuity Facilities</b>  <i>Continuity facilities are locations from which leadership and critical positions may operate during a continuity event. These may include one or many facilities or virtual offices from which to continue essential operations.</i>	(1) The continuity location’s selection is not based on identifiable criteria, such as geographic location, electricity grids, potential road hazards, or accessibility to location during severe weather conditions.  (2) Not all business processes have a primary location and two continuity locations identified.  (3) Continuity location references are not specific.  (4) A continuity location may not be able to support the operations of all departments that identified that location as a continuity location.  (5) The identified continuity locations have not been tested or validated to determine whether they have the capacity to support essential functions for up to 30 days, such as health, safety, and security of employees.  (6) Memorandums of Understanding, where City departments intend to use other City department’s primary locations as an alternate location for emergencies, are not outlined.  (7) Agreements with vendors, other cities, or entities that the City is placing reliance upon during emergencies have not been developed.	<b>Not Implemented</b>  <b>Implemented</b>  <b>Implemented</b>  <b>Implemented</b>  <b>Not Implemented</b>  <b>Not Implemented</b>  <b>Implemented</b>

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<b>Continuity Management Function</b>	<b>Required Elements Identified as Missing Components in the Original Audit</b>	<b>Follow-Up Status (Implemented/ Not Implemented)</b>
<b>5 Continuity Communications</b>  <i>Continuity communications are the systems that support full connectivity among leadership, internal elements, and other organizations to perform Essential Functions during a continuity event.</i>	(1) Minimum communication requirements for primary and alternate continuity facilities are not established.  (2) Interoperable and available communication capabilities are not in sufficient quantities to support essential functions for at least 30 days.  (3) Sufficient communication capabilities are not available to support senior leadership and City staff when alternate facilities are being used by more than one department.	<b>Implemented</b>  <b>Not Implemented</b>  <b>Not Implemented</b>

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Continuity Management Function	Required Elements Identified as Missing Components in the Original Audit	Follow-Up Status (Implemented/ Not Implemented)
<b>6 Vital Records Management</b>  <i>Records management is the identification, protection, and availability of information systems and applications, electronic and hardcopy documents, references, and records needed to support Essential Functions during a continuity event.</i>	(1) An inventory of key records for emergency operating records or rights and interests are not available.	<b>Implemented</b>
	(2) The appendices in each City department’s plan, where vital records are generally identified, are not limited to essential functions.	<b>Implemented</b>
	(3) Memorandums of Understanding between the City departments and CIS outlining the data classification needs are not in place.	<b>Not Implemented</b>
	(4) Alternate location(s) do not have hard or electronic copies of data stored along with the appropriate media necessary to read the vital data including network support.	<b>Not Implemented</b>
	(5) Protection for vital records, including passcodes, access codes, keys, and other means for disbursing sensitive information during emergencies are not established.	<b>Not Implemented</b>
	(6) An annual review that includes rotations and cycles of latest versions of vital records at various locations is not performed.	<b>Not Implemented</b>
	(7) A training program for City personnel to focus on identifying, inventorying, protecting, storing, accessing, and updating vital records is not completed.	<b>Not Implemented</b>

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Continuity Management Function	Required Elements Identified as Missing Components in the Original Audit	Follow-Up Status (Implemented/ Not Implemented)
<b>7 Human Capital</b>  <i>Human capital involves policies, plans, and procedures that address human capital needs during a continuity event, such as guidance on pay, leave, work scheduling, benefits, telework, hiring, authorities, and flexibilities.</i>	(1) The City has not established an emergency relocation group with the specific skill sets to perform essential functions or support tasks in an emergency event.  (2) The City has not developed and implemented a process to document, communicate, and train continuity personnel of their roles and responsibilities, including preparedness planning.  (3) The City has not developed a process to communicate with staff on how to report to work during emergency events.  (4) The City has not implemented a process to contact and account for all staff during an emergency event.  (5) The City has not identified a continuity coordinator to work with the City’s Department of Human Resources to resolve human capital issues related to an emergency planning.  (6) The City has not developed key policies related to emergency planning, including employee leave and compensation, telecommuting, social distancing, and other human resource related activities, such as work scheduling and benefits.  (7) The City’s Administrative Directive 2-5, <i>Emergency Evacuation</i> , is obsolete and does not include physical infrastructure changes, such as restriction to stairs and changes to evacuation strategies since 1995.	<b>Implemented</b>  <b>Implemented</b>  <b>Not Implemented</b>  <b>Not Implemented</b>  <b>Not Implemented</b>  <b>Not Implemented</b>  <b>Not Implemented</b>



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Continuity Management Function	Required Elements Identified as Missing Components in the Original Audit	Follow-Up Status (Implemented/ Not Implemented)
	<p><b>Training</b> <i>(continued from previous page: The City does not have a training program that includes continuity training for...)</i></p> <ul style="list-style-type: none"> <li>(6) Communication capabilities</li> <li>(7) Identification, protection, and availability of vital records</li> <li>(8) Devolution</li> <li>(9) Reconstitution of operations</li> </ul> <p><b>Exercise</b></p> <p>Between 2010 and 2012, the City participated in two actual events and implemented one desktop exercise. The After-Action Reports for the two actual events identified similar issues that were not addressed. These issues included:</p> <ul style="list-style-type: none"> <li>(1) Inadequate training for DPD and DFR personnel on the implementation of Incident Command System</li> <li>(2) Inconsistent resource staffing where personnel were overstaffed or not available</li> <li>(3) Deficiencies in continuity facilities where the facilities were not identified or were not sufficient for operations</li> <li>(4) Insufficient communication equipment and/or missing communication equipment</li> </ul>	<p><b>Not Tested</b></p>

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Continuity Management Function	Required Elements Identified as Missing Components in the Original Audit	Follow-Up Status (Implemented/ Not Implemented)
<p><b>9 Devolution of Control and Direction</b></p> <p><i>Devolution is the capability to transfer statutory authority and responsibility for Essential Functions from primary operating staff and facilities to other employees and facilities. It also provides the means to sustain that operational capability for an extended period.</i></p>	<p>The City does not have devolution plans that:</p> <ul style="list-style-type: none"> <li>(1) Include a program plan and procedures; budgeting and acquisitions; essential functions; orders of succession; delegations of authority; continuity communications; vital records management; human capital; test, training and exercise program; and, reconstitution elements of a viable continuity of operations capability</li> <li>(2) Identify prioritized essential functions for devolution, define tasks, and resources to facilitate immediate transfer to devolution site</li> <li>(3) Include a roster that identifies fully equipped and trained personnel who will be stationed at the devolution site with the authority to perform essential functions</li> <li>(4) Identify what would likely activate or “trigger” the devolution option</li> <li>(5) Specify how and when direction and control of organization will be transferred to and from the devolution site</li> <li>(6) List the necessary resources to facilitate the performance of essential functions at the devolution site</li> <li>(7) Establish and maintain reliable processes and procedures for acquiring the resources necessary to continue essential functions for extended periods</li> <li>(8) Establish and maintain capability to resource or reconstitute organization authorities to their pre-event status upon termination of devolution</li> </ul>	<p><b>Implemented</b></p> <p><b>Not Tested</b></p>

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Continuity Management Function	Required Elements Identified as Missing Components in the Original Audit	Follow-Up Status (Implemented/ Not Implemented)
<p><b>10 Reconstitution Operations</b></p> <p><i>Reconstitution planning is the process by which organizations/ personnel resume normal operations from the original or a replacement primary operating facility.</i></p>	<p>The City does not have a reconstitution plan to return to normal operations consisting of:</p> <ul style="list-style-type: none"> <li>(1) An executable plan for transitioning back to efficient normal operational status once a threat or disruption has passed</li> <li>(2) Options to move operations from the devolution sites to either the original operating facility, or, if necessary, to a new operating facility</li> <li>(3) Necessary procedures for conducting a smooth transition from the relocation site(s) to a new facility(ies)</li> </ul>	<p><b>Implemented</b></p> <p><b>Not Tested</b></p> <p><b>Not Tested</b></p>

**ATTACHMENT II**

As shown in Table I below, according to the Office of Emergency Management (OEM) and the Department of Communication and Information Services (CIS), since the final acceptance of the City of Dallas’ (City) Continuity of Operations (COOP) Basic Plan and the Departments’ annexes in December 2015, both departments have facilitated progress towards business continuity by assisting departments in completing updates to their annexes or in continuing to develop necessary components of a Disaster Recovery Plan (DRP).

**Table I**  
**Progress Towards Business Continuity**

Date/Fiscal Year	Progress Facilitated by OEM
<b>December 2016</b>	Reviewed all departmental annexes and noted specific vagaries, deficiencies, and omitted information and provided this information to each department to act upon
<b>February 2016</b>	Provided training modules tailored to each department for training staff on the COOP Basic Plan and the expected actions of departments in the event the COOP Basic Plan is activated
<b>December 2017</b>	Engaged all Tier 1 departments to conduct a thorough review and update to their COOPs
<b>March 27, 2018</b>	Five of the seven Tier 1 departments have completed draft annex updates that should be finalized within 30 days
<b>December 2015 June 2016 (Cart upgrade)</b>	Purchased and staged equipment at the locations Tier 1 departments relocate to in a COOP event. Laptops, printers, radios, vital records and software, and copies of department annexes are located at these sites.
<b>July 21, 2015 December 14, 2018</b>	Conducted two full-scale tests of the certain annexes in conjunction with Dallas City Hall Evacuation drills. These exercises have relocated staff from Tier 1 departments to their designated back-up location to test equipment that has been pre-staged for functionality and to test communications procedures outlined in the annexes.
<b>September 15, 2015 August 23, 2017 November 2, 2017 January 23, 2018</b>	Conducted four exercises of the back-up 9-1-1 center. These exercises relocated dispatch and call taker staff to the back-up location, required set-up of the center, and the taking of live calls to test the capability of the City of Dallas (City) to continue operations in the event of a loss of operating capacity at the primary location.

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Date/Fiscal Year	Progress Facilitated by CIS
<b>Fiscal Year 2015</b>	The CIS began building an Information Technology (IT) Disaster Recovery Program (Program). The CIS hired a Disaster Recovery (DR) Manager in September 2015 to head the Program. The DR Manager reviewed and created standards, completed a gap analysis of existing resources, socialized findings with CIS Executives, Senior IT Managers, IT Managers and departmental staff, plus created the first ever City DR Lab (without increasing funding for disaster recovery). The DR Lab is used for the testing of recovery processes including applications.
<b>Fiscal Year 2018</b>	Currently, CIS is testing moving the DR Lab out of Dallas City Hall as a possible replacement to outside services. Working with the departmental and CIS managers, the DR Manager has developed 58 process mappings, 18 DR plans (departmental and application), and performed 36 table top or off-site tests. CIS will continue to work with the departmental and CIS managers, via its iterative methodology.

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**Source:** OEM and CIS

**ATTACHMENT III**

**Management’s Response**

**Memorandum**

**RECEIVED**

JUN 5 2018

City Auditor’s  
Office



CITY OF DALLAS

**DATE:** May 31, 2018

**TO:** Craig D. Kinton, City Auditor

**SUBJECT:** Response to Audit Report:  
Audit Follow-Up of Prior Audit Recommendations – Audit of the Design of  
the City of Dallas’ Pandemic Influenza Continuity of Operations Basic Plan

Our responses to the audit report recommendations are as follows:

**Recommendation I**

We recommend the City Manager in coordination with the Directors of OEM and  
CIS:

- Develop an administrative directive that establishes the City’s policy regarding business continuity planning and the COOP Basic Plan at both a citywide and departmental level
- Establish an organizational structure that clearly defines roles, responsibilities, and accountability related to business continuity planning and the COOP Basic Plan
- Dedicate continuity of operations personnel with the appropriate authority and resources
- Obtain departmental commitment to ensure: (1) the City’s COOP Basic Plan and the departments’ annexes are complete, including adequate IT resources and other supplies necessary to restore and maintain essential functions for 30 days; (2) regularly updated (at least annually); and, (3) properly tested
- Develop or obtain IT systems to document the departments’ annexes and monitor annual updates
- Reach a consensus among departments regarding which IT systems must be restored

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## Management Response / Corrective Action Plan

Agree  Disagree

Since the original audit findings in 2016 and throughout the process of the follow up audit the Office of Emergency Management has acted to implement all the recommendations as per the guidance (Continuity Assessment Tool, 2009) used to conduct the original audit.

In a continual effort to make improvements to plans, policies and procedures, the Office of Emergency Management continues to implement the auditor's recommendations in future updates to the citywide Continuity of Operations Plan. We continue to monitor and engage departments to ensure their continuity plans are maintained and that departments are using the training documents provided by OEM to familiarize staff on the specifics of each Continuity of Operations Plan.

Since the final acceptance of the Continuity of Operations Plan, OEM has taken the following steps to assist departments in completing updates to their Continuity of Operations Plans:

### Actions Taken:

1. Reviewed all departmental COOP plans in December 2016 and noted specific vagaries, deficiencies, and omitted information and provided this information to each department to act upon.
2. Provided training modules tailored to each department for training staff on the Continuity of Operations Plan and the expected actions of departments in the event the plan is activated.
3. OEM has provided and will continue to provide technical assistance during review and revision processes to facilitate a smooth process and increase departmental knowledge of what is required in the departmental annexes.
4. Engaged all Tier 1 departments in December 2017 to conduct a thorough review and update to their Continuity of Operations Plans. As of this writing
  - a. 5 of the 10 Tier 1 departments have completed their review and update process
  - b. The remaining 5 departments will complete plan review and update process by August 30, 2018.
5. OEM has reformatted annexes to
  - a. Be more readable and user-friendly
  - b. Provide ease and flexibility during the review and revision process
  - c. Centralizing forms for documentation of revisions, document changes, training, and drills and exercises.

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6. Created a SharePoint site to migrate all COOP plans to facilitating easier revisions and encouraging more frequent updates by departments. OEM will provide administration of the site, but each department will have read-only rights to all annexes and editing rights to their own departmental annex.
7. Changed Tier 1 departments schedule of review and revision from once a year to biannual review to ensure accuracy of information. Tier 1 departments will begin review and revision in December 1<sup>st</sup> every year with finalization no later than April 1<sup>st</sup>. The second review will be a personnel, vendor, and contact information review beginning in August with a completion date no later than September 1<sup>st</sup>.  
  
Tier 2 and 3 departments will be required to complete an annual review of plans beginning on December 1<sup>st</sup> with finalization no later than April 1<sup>st</sup>.
8. Inserted a promulgation statement in each departmental annex that affirms the department's commitment to maintaining a current COOP plan that includes staff training and exercises. These statements are signed off by the department directors as the final step in the revision cycle.
9. Purchased and staged equipment at the locations Tier 1 departments relocate to in a Continuity of Operations event. Laptops, printers, radios, vital records & software, and copies of Continuity of Operations Plans are located at these sites.
10. Conducted two full-scale tests of the Continuity of Operations Plan in conjunction with City Hall Evacuation drills. These exercises have relocated staff from Tier 1 departments to their designated back-up location to test equipment that has been pre-staged for functionality and to test communications procedures outlined in the Continuity of Operations Plans.
11. Conducted four exercises of the back-up 9-1-1 center. These exercises relocate dispatch and call taker staff to the back-up location, require set-up of the center, and the taking of live calls to test the capability of the City to continue operations in the event of a loss of operating capacity at the primary location.

### **In Progress Actions:**

1. OEM will create and implement an Administrative Directive to govern the City of Dallas Continuity of Operations program by October 30, 2018
2. OEM will develop a COOP management structure (committee) that will oversee the development, implementation, and maintenance of the City's COOP program by October 30, 2018.
3. In final stages of completion of a "hot site" back up 9-1-1 center and a backup OEM emergency operations center to be operational by August 30, 2018.

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The Office of Emergency Management will continue to implement and refine actions taken to maintain and develop the City's Continuity of Operations Program. We will assign the appropriate resources to implement the recommendations made by the City Auditor.

In the final analysis, the Office of Emergency Management recognizes the urgency of preparedness prior to emergency events taking place. We will continue to work with departments to update and enhance Continuity of Operations Plans to ensure that critical services can be quickly reconstituted in an emergency to provide service to the residents and guests of the City of Dallas.

### **Implementation Date**

10/1/2019

### **Responsible Manager**

Rocky Vaz, Managing Director, Office of Emergency Management

### **Recommendation II**

We recommend the City Manager in coordination with the Director of CIS:

- Develop a comprehensive DRP by establishing a formal plan that includes measurable interim milestones to demonstrate progress

### **Management Response / Corrective Action Plan**

Agree  Disagree

Beginning in 2016, Communication and Information Services (CIS) took actions to implement the recommendations reported in the original audit. CIS has worked jointly with OEM and directly with City departments to expand the City's COOP, Annexes, and DRP's for the entire City.

In 2018, CIS continues to make improvements to plans, policies and procedures in an ongoing effort to implement the auditor's recommendations. CIS continues to monitor and directly engage departments to ensure their business continuity and DR plans are maintained. CIS has also provided training documents to familiarize staff on the specifics of each Business Continuity/DR Plan (BCP/DRP).

CIS began building an Information Technology (IT) Disaster Recovery Program (Program) in 2015 by hiring a Disaster Recovery/Business Continuity Manager (DR Manager). The DR Manager reviewed and created standards, completed a gap analysis of existing resources, socialized findings with CIS Executives, Senior IT Managers and departmental staff, and created the first-ever City DR

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Lab (without increasing funding for disaster recovery). The DR Lab is used for the testing of recovery processes including applications.

Working with the departmental and CIS managers, the DR Manager has developed 58 process mappings, 18 DR plans (departmental and application), and performed 36 table top or off-site tests. CIS will continue to work with the departmental and CIS managers via its iterative testing methodology.

CIS recognizes the urgency of Business Continuity. Working in concert with OEM, CIS will continue its ongoing work of updating and enhancing BCPs and DRPs to ensure that critical services can be quickly restored to the residents and guests of the City of Dallas during service interruptions.

CIS will establish a formal plan, including measurable interim milestones to demonstrate progress, to develop an enterprise DRP.

### **Implementation Date**

Refine requirements – October 1, 2018

Update formal plan – December 31, 2018

Demonstrate progress – Provide annual updates to Internal Audit

### **Responsible Manager**

CIS Disaster Recovery Manager

### **Recommendation III**

We recommend the City Manager periodically briefs the City Council on the City's business continuity.

### **Management Response / Corrective Action Plan**

Agree  Disagree

The Office of Emergency Management and the Department of Communications and Information Services will provide periodic updates to the City Council of the implementation of recommendations I and II outlined in this report.

### **Implementation Date**

Upon completion of each milestone outlined in this memorandum.

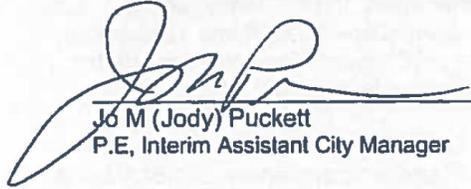
### **Responsible Manager**

Rocky Vaz, Managing Director, Office of Emergency Management

William Finch, Director, Department of Communication and Information Services

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Jo M (Jody) Puckett  
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C: Kimberly B. Tolbert, Chief of Staff  
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