January 2025 Winter Storm Incident Response Assessment and Improvement Plan

City of Richmond, Virginia

FINAL
June 2025

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Executive Summary

The Richmond 2025 Winter Storm Incident Response Assessment and Improvement Plan (IP), "Incident Response Assessment" is developed from the City of Richmond, Virginia's ("the City" or "City") sincere commitment to continuous improvement and emergency response capacity building. This Incident Response Assessment will support the City in preparation for future response and recovery incidents, providing key information regarding best practices and lessons learned from the 2025 Winter Storm and associated water emergency response in January 2025. An emergency management firm (i.e., Hagerty Consulting) was contracted for the development of this Incident Response Assessment. The developers of this report (i.e., the Planning Team) gathered observations and feedback from stakeholders who responded to the incident through a series of interviews and survey responses.

The Incident Response Assessment is organized into four sections as described below:

- **Introduction:** Describes the purpose of this document, as well as the approach and methodology in development.
- **Incident Overview**: Details an overview of the Winter Storm and cascading impacts, as well as specific timeline-related events.
- **Findings and Recommendations:** Analyzes the eight Federal Emergency Management Agency (FEMA) Core Capabilities by strengths and areas for improvement, along with corresponding recommendations based on the observations.
- **Improvement Plan:** Assigns responsible parties, priority, and timeline for implementation to the recommendations outlined in the Incident Response Assessment.

Findings and recommendations are categorized by FEMA Core Capabilities. FEMA's 32 core capabilities, established in the National Preparedness Goal, are referenced in many national preparedness efforts, including the National Planning Frameworks. This Incident Response Assessment is categorized by eight of the most relevant core capabilities as a national best practice.

Table 1: FEMA Core Capabilities Identified in this Incident Response Assessment[1]

• Planning	• Public Information and Warning
• Operational Coordination	• Logistics and Supply Chain Management

[1] For more information on FEMA's Core Capabilities, see https://www.fema.gov/emergency-managers/national-preparedness/mission-core-capabilities.

• Operational Communications	• Economic Recovery
• Situational Assessment	• Long-Term Vulnerability Reduction

Upon further analysis of the observations documented during the stakeholder interview sessions, a total of five common Strengths and five Areas for Improvement were identified. The Strengths represented continual improvement in operations stemming from strong partnerships and adaptability of response personnel. The Areas for Improvement were also viewed as operational successes albeit with additional opportunities for further refinement. An overview of the report's findings is listed in the table below.

Table 2: Overview of Observed Strengths and Areas for Improvement

Strengths	Areas for Improvement
• Real-time Planning & Adaptability	• Gaps in Pre-disaster Planning, Training, and Exercising Pre-Incident
• Strong Internal Teamwork	• Unclear Command and Control Structures
• Transparent Leadership Public Messaging	• Inconsistent Communications and Notification Processes
• Improved Situational Awareness Over Time	• Lack of Situational Awareness and Common Operating Picture
• Ad Hoc Coordination for Large Distribution Effort	• Duplication of Efforts and Uncoordinated Resource Management

Introduction

Methodology

The Planning Team's approach to completing this comprehensive Incident Response Assessment involved the following data collection methods:

- Document Review
- Stakeholder Interviews
- Stakeholder Survey

All streams of feedback went through vigorous mixed-method analyses to identify the findings and recommendations within this document.

Document Review

The document review process included an evaluation and analysis of relevant existing plans, reports, and guidance to help determine the City's preparedness and response capabilities. This review process enabled stronger recommendations aligned with the City's current capabilities.

Interviews

The Planning Team, in coordination with the City, conducted outreach to a total of 88 stakeholders to schedule an interview. Out of the 88 stakeholders, the Planning Team interviewed a total of 57 individuals, both virtually and in person. Individuals identified to participate in Stakeholder Interviews included representatives from City leadership, City departments and agencies, support agencies (such as the Virginia Department of Emergency Management [VDEM]), and nearby jurisdictions. The Planning Team leveraged the Stakeholder Interviews to identify elements of the response process that were successful, as well as areas for improvement across response operations. The quantity of interviews also allowed the Planning Team to validate observations made by interviewees and resolve any conflicting information. The information collected from the Interviews accounts for a majority of the **Findings and Recommendations** section. For a detailed list of Stakeholder Agencies engaged, see **Appendix A: Stakeholders**.

Survey

The Planning Team, in coordination with the City, created and disseminated a Stakeholder Survey to collect individual perspectives on the response operations in the City during the Winter Weather response. The Survey was completed by 13 individuals who provided information regarding their experience during the Winter Weather response, including lessons learned and best practices for codification. The Survey data was analyzed using the same methodology as the Interviews, (i.e., identifying elements of the response process that were successful, as well as areas for improvement across response operations). The findings from the Survey data are included in the Findings and Recommendations section.

Incident Overview

Event Summary

On Friday, January 3, 2025, a Winter Weather Storm made landfall across the West Coast of the United States of America. The same day, Virginia Governor Glenn Youngkin declared a state of emergency. It was not until Sunday, January 5, that this Winter Weather Storm, unofficially referred to as, “Winter Storm Blair”, reached the City. The City’s new Mayor, Danny Avula, sworn in on Wednesday, January 1, also declared a state of emergency for the City on Sunday, January 5. The City prepared by utilizing the inclement weather shelter at 1900 Chamberlayne and two overflow inclement weather shelters and the Department of Public Works (DPW) activated its snow plan.

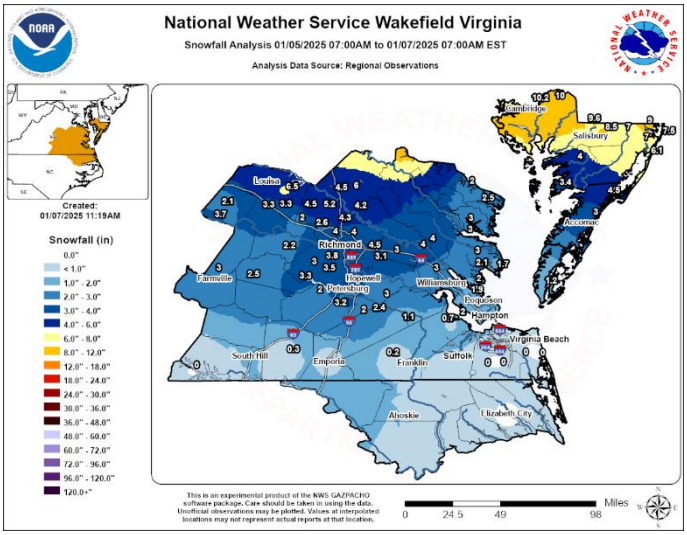

Figure 1: Snowfall by inches by January 7, 2025 7:00 a.m. for central Virginia and Richmond. National Weather Service provided by the Wakefield, Virginia Weather Forecast Office

For the next 24 hours, some nearby regions in Central Virginia experienced more than five inches of snow. The City took precautions in dealing with the impacts of the Winter Weather Storm by activating its Emergency Operations Center (EOC) virtually, allowing essential City staff to work remotely while still supporting the emergency roles and responsibilities of dealing with the extreme weather conditions.

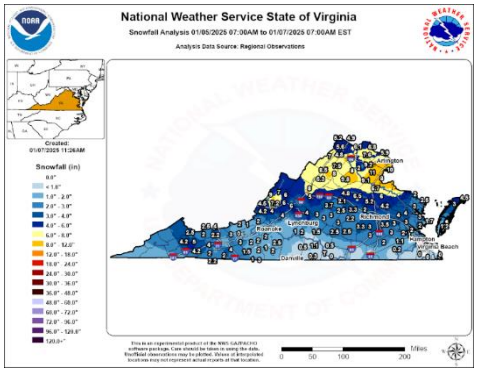

Figure 2: Snowfall by 7:00 a.m. Figure 3: Snowfall by inches by 7:00 a.m. on January 7, 2025 for Virginia. National Weather Service provided by the Wakefield, Virginia Weather Forecast Office

The next day, the storm brought wind and snow down on the City. At approximately 6:00 AM on Monday, January 6, these weather conditions created a power outage at the Richmond Water Treatment Plant (WTP). Due to this outage, the water processed and pumped through the WTP was not being measured properly. While the WTP eventually came back online, the connection was lost with the Supervisory Control and Data Acquisition (SCADA) software, resulting in heavy flooding at the WTP, rendering machinery inoperable.

By the afternoon of Monday, January 6, WTP staff and City leadership became aware that regaining control of water pressure and sanitation would not be as expeditious as previously thought. After 4:00 PM on Monday, January 6, the City delivered a press release issuing an immediate Boil Water Advisory (BWA), urging residents to limit their water use. Chesterfield, Henrico, and Hanover counties had removed themselves from Richmond's water supply and transferred to other supplies to reduce the impact of the BWA on the residents in their counties. The City began setting up water distribution sites, or Points of Distribution (PODs), around the City and identified 10 locations and volunteers who could staff the PODs by the evening of Monday, January 6, 2025. This process was unprecedented, but the City was able to quickly activate sites for residents to retrieve an essential supply (i.e., water).

By the morning of Tuesday, January 7, the Winter Weather Storm had passed through the region, leaving multiple inches of snow on the ground, and a WTP still requiring restoration. With temperature highs sitting just above freezing, and lows at approximately 20 degrees Fahrenheit, more than 90,000 liters of water were reported as distributed to residents by the end of the day, according to a City press release.

Figure 4: Line at Atlee High School during water distribution on January 7. Photo by Jakobi Davis/8News

By the morning of Thursday, January 9, more than 180,000 liters of potable water were provided to residents through City PODs at 11 locations (an additional POD had been setup). Additionally, the City provided water to residents who could not travel to PODs utilizing 311 as a primary communications avenue. Simultaneously, the City maintained its emergency response operations and continued efforts with branch and debris removal, snow removal, and water distribution to support residents throughout the emergency. The Virginia National Guard (VNG) also supported water distribution by supporting nine potable water tanker sites.

The City lifted the BWA at 11:30 AM on Saturday, January 11, after all water test sampling passed safety and health requirements. The EOC remained active until the BWA was lifted and the City was clear of any continued threat of extreme weather conditions; the EOC deactivated on Saturday, January 11, and officially demobilized on Monday, January 13. The City remained dedicated throughout the entire response and activation phase to ensure its residents remained safe and warm throughout the duration of the Winter Weather Storm and the BWA.

Event Timeline

The following timeline highlights key events that occurred prior to and during the incident response. Events detailed in the timeline were gathered through stakeholder interviews, documents provided by City and external stakeholders, and information released publicly through verified sources (e.g., City Press Releases).

January 2025

Thursday, January 2

- **12:30 PM**: The Interim Chief Administrative Officer (CAO), Deputy Chief Administrative Officers (DCAOs), department heads, Emergency Management Liaisons (EMLs),[2] and other stakeholders hold a Weather Briefing to discuss preparatory actions ahead of the storm.

Friday, January 3

- Winter Weather Storm makes landfall on the West Coast.
- **7:00 AM:** The Interim CAO, Department of Emergency Communications, Preparedness and Response (DECPR), and DPW begin to plan for the Winter Weather Storm.
- **10:00 AM:** The Department of Neighborhood and Community Services (DNCS) and DECPR discuss setting up overflow inclement weather shelters.
- **12:30 PM:** The Interim CAO, DCAOs, Department Heads, EMLs, and other stakeholders hold a Weather Briefing to discuss preparatory actions ahead of the storm.
- **1:00 PM:** The City participates in a VDEM call about the Winter Weather Storm.
- **1:30 PM:** The City attends a call with Dominion Energy to discuss the Winter Weather Storm.
- **2:00 PM:** The City attends the VDEM government officials call.
- **2:00 PM:** The Policy Group (i.e., leadership/decision-making stakeholders) holds a meeting to discuss the Winter Weather Storm forecast and City preparatory activities.
- **3:30 PM:** The City participates in VDEM Region 1 Weather Call.
- **3:50 PM:** Messaging was sent to the on-call shelter support team from the Department of Social Services (DSS) requesting them to prepare for a possible activation.

[2] Note that EMLs are a term used by the City during this incident; however, this terminology may change for future incidents. As such, these roles are referred to as “City department emergency liaisons.”

- **4:10 PM:** The City sent out a message via WebEOC: “Due to forecasted low temperatures and precipitation, the Inclement Weather Shelter will transition to 24-hour operations starting at 5:00 PM and remain open continuously through Wednesday, January 8, 2025, at 8:00 AM.”
- **5:00 PM:** DNCS initiates inclement sheltering for the Winter Weather Storm in coordination with the Salvation Army at 1900 Chamberlayne Avenue. The site is scheduled to remain open through Wednesday, January 8, at 8:00 AM.
- **6:00 PM:** The Virginia Governor Glenn Youngkin declared a state of emergency.

Saturday, January 4

- **12:00 PM:** DECPR holds a call with DPW and the Interim CAO.
- **3:30 PM:** DECPR holds a check-in meeting with DPW and DCAOs.
- **6:00 PM:** Messaging was sent out both internally and externally about the upcoming Winter Weather Storm that included information about the City of Richmond's Inclement Weather Shelter and general safety information.

Sunday, January 5

- **8:00 AM:** The City holds a call with City agencies about the Winter Weather Storm.
- **8:45 AM:** The Interim CAO, Mayor’s Chief of Staff, and DECPR hold a coordination call to discuss the Winter Weather Storm
- **9:30 AM:** VDEM Region 1 holds a weather call.
- **11:00 AM:** The Interim CAO, DNCS, Strategic Communications, and DECPR hold an inclement weather sheltering call.
- **12:00 PM:** The Mayor, Mayor’s Chief of Staff, Emergency Management Coordinator, Interim CAO, DCAOs, Public Safety Chiefs, and representatives from DPU, DPW, and the Office of Strategic Communications (OSC) hold a Policy Group meeting. The decision is made to declare a local state of emergency due to the Winter Weather Storm and virtually[3] activate the EOC.
- **12:50 PM:** Departments are requested to include EOC staffing plan into WebEOC (via Incident Command System [ICS] 214 in WebEOC).
- **2:00 PM:** Mayor Danny Avula declares a local state of emergency due to the anticipated impact of the Winter Weather Storm. The Finance Department begins to set up the Winter Weather Storm code for recouping funds.

[3] A virtual EOC activation is a partial activation, as opposed to a full activation which is in-person.

- **3:00 PM:** DECPR holds a meeting to discuss salt preparation for the Winter Weather Storm.
- **3:40 PM:** Information about how to recoup funds using the Winter Weather Storm code is posted in WebEOC.
- **5:00 PM:** DNCS opens two temporary inclement weather overflow shelters at Marshall Plaza and the Richmond Police Department's (RPD) Second Precinct for vulnerable residents. The shelter operations run from Sunday, January 5, through Tuesday, January 7, at 10 AM.
- **5:00 PM:** City leadership receives an email that City offices are closed on Monday, January 6, 2025, with the exception of essential personnel who should report to work as scheduled.
- **7:00 PM:** DPW activates its snow program, expecting a two-day activation. Per WebEOC, 600 tons of salt are available.
- **7:30 PM:** DECPR holds an internal meeting to discuss City needs based on the impact of the Winter Weather storm.
- **8:00 PM:** The EOC holds its first virtual meeting.
- **8:30 PM:** Situation Report (SitRep) #1 is posted in WebEOC.

Monday, January 6

- The Winter Weather Storm continues impacting Virginia.
- **4:00 AM:** The City holds a virtual EOC Briefing.
- **4:30 AM:** SitRep #2 is posted in WebEOC.
- **8:00 AM:** The City holds a virtual EOC Briefing.
- **9:44 AM:** SitRep #3 is posted in WebEOC.
- **12:00 PM:** The City holds a virtual EOC Briefing.
- **12:30 PM**: Representative from VDH arrives at WTP and remains on site until the BWA (issued at 4:26 PM) is lifted.
- **1:00 PM:** The Mayor, Interim CAO, Emergency Management Coordinator, and the OSC Director receive a briefing from DPU Director regarding flooding at the WTP.
- **1:00 PM:** The City makes formal recommendation to fully activate the in-person EOC. The City requests stakeholders to arrive at the EOC at 3pm.
- **2:00 PM:** The Interim CAO notifies Hanover, Henrico, Chesterfield of the severity of the issues.
- **2:30 PM:** The Policy Group holds a meeting at the EOC.
- **3:00 PM:** Upon request from City and EOC leadership, City staff and partners begin arriving at the EOC.
- **3:00 PM:** VDEM contacts the Virginia Department of Health (VDH) Office of Drinking Water (ODW) and Hanover County to check for reported issues; none were noted.

- **4:00 PM:** The City holds an EOC Briefing.
- **4:26 PM:** The City delivers a press release and issues an immediate BWA and urges residents to limit water use.
- **4:30 PM:** The City of Richmond, Chesterfield, Henrico, Hanover, and VDH hold a coordination call.
- **5:30 PM:** The City of Richmond Drinking Water Coordination Call is hosted by VDH ODW and includes key stakeholders.
- **6:00 PM:** VDH ODW staff arrive at the WTP.
- **6:56 PM:** City employees receive an email that, due to the anticipated impact of severe weather conditions, City of Richmond offices will be closed on Tuesday, January 7, 2025.
- **7:30 PM:** Information on WebEOC states that the Central Virginia Incident Management Team (CVAIMT) is requested by the Interim CAO via the VDEM Memorandum of Understanding (MOU) for the next operational period.
- **8:00 PM:** The City holds an EOC Briefing.
- **9:30 PM:** The Mayor arrives at the WTP.
- **Evening:** The City identifies 10 PODs to begin distributing water starting on Tuesday, January 7. The 10 original PODs include:
  - Bellemeade Community Center,
  - Broad Rock Library,
  - East End District Initiative (EDI),
  - Hickory Hill Community Center,
  - Midtown Green,
  - Pine Camp Community Center,
  - Randolph Community Center,
  - Southside Plaza,
  - West End Library, and
  - Westover Hills Community Center.
- **Evening:** The City begins procuring water and receiving donations. The City of Richmond's DSS partners with the Richmond Sheriff's Office and the American Red Cross to coordinate the distribution of bottled water to vulnerable populations and areas of high need. A request for 40 pallets of water is made to VDEM and delivered to DPU on Commerce Road.
- **Evening:** A press release notes that Chesterfield, Henrico, and Hanover removed themselves from the City's water supply and transferred to other supplies and are therefore not affected by the BWA.
- The DECPR Food Unit estimates 45 personnel in the EOC.

Tuesday, January 7

- **5:40 AM:** A press release notes that DPU, regional partners, and water system experts are still working to assess damaged equipment, diagnose issues, and restore water production.
- **7:00 AM:** The Mayor returns to EOC after spending the night at the WTP.
- **7:00 AM:** The City holds an EOC Briefing.
- **8:00 AM:** The Mayor hosts a press conference on WTP Restoration.
- **8:30 AM:** An EOC Manager is assigned in place of the EOC Coordinator.
- **9:00 AM:** The City partially activates the CVAIMT. The CVAIMT holds its initial conference call.
- **9:00 AM:** The City shares a public notice of water distribution beginning at 10 PODs. Sites will operate from 9:30 AM to 11:30 AM and 3 PM to 5 PM, while targeted outreach to provide water to high-need areas continues throughout the day.
- **11:31 AM:** A press release notes that over 37,000 liters of water were delivered to PODs.
- **12:00 PM:** The City holds an EOC Briefing.
- **12:30 PM:** A press release notes that the City restored water production but water pressure is expected to take several hours to build up.
- **1:00 PM:** The CVAIMT fully activates in the City. Meeting held to establish CVAIMT as a central ordering point for water requests with VDEM, while other jurisdictions handle their own distribution.
- **2:00 PM:** The Mayor arrives at WTP.
- **2:30 PM:** The VDH ODW holds a City of Richmond Drinking Water Coordination Call to convene key stakeholders.
- **2:30 PM:** Emergency Management Coordinators from Richmond, Chesterfield, Henrico, and Hanover hold a Coordination Call.
- **4:51 PM:** City employees receive notice that due to the impact of severe weather conditions, the City offices remain closed, except for essential personnel.
- **6:15 PM:** The City issues a media advisory about that afternoon's electric panel failure. The advisory states that the restoration timeline has expanded.
- **7:00 PM:** The CVAIMT holds a Regional Conference Call to gather updates on the WTP status.
- **8:00 PM:** The City holds an EOC Briefing.
- **9:00 PM:** A public notice of progress at the WTP states that six filters and one pump are operational, with the goal of 12 filters and four pumps being operational.
- **Evening:** The Richmond Ambulance Authority (RAA), RPD, and Richmond Fire Department (RFD) begin delivering water utilizing 311 as a communications avenue for City residents to request water.

- **Evening:** A total of 90,000 liters of water are distributed.
- The EOC sign-in tracking is initiated; 52 personnel were recorded in the EOC through sign-in tracking.

Wednesday, January 8

- **9:30 AM:** The Mayor hosts a press conference providing an update on WTP restoration.
- **12:30 AM:** VDEM advises that 120 pallets of bottled water are scheduled for delivery on Wednesday, January 8, at approximately 8:00 AM to 400 Richmond Highway. The City makes an additional request for 40 more pallets of bottled water to be delivered. VDEM support advises that as of 7:00 AM on January 8, 2025, all requests for bottled water will be processed through the CVAIMT.
- **4:30 AM:** A public notice of progress at the WTP states that 12 filters and three pumps are operational, with the goal of 12 filters and four pumps being operational.
- **8:00 AM:** The CVAIMT holds a Regional Conference Call to gather updates on WTP status.
- **9:00 AM:** The City holds an EOC Briefing.
- **10:30 AM:** The City, Henrico, Hanover, Chesterfield, CVAIMT, and VDEM attend a Regional Emergency Management Coordination Call.
- **10:30 AM:** 10 PODs operate from 10:30 AM to 2:00 PM.
- **11:35 AM:** SitRep #4 is posted in WebEOC.
- **12:00 PM:** VDH ODW holds a City of Richmond Drinking Water Coordination Call to convene key stakeholders.
- **12:35 PM:** Urban Forestry reports 43 trees down with 32 complete and of the remainder, four in wires requiring Dominion assistance.
- **Afternoon:** A new POD opens at the Annie Giles Community Center.
- **2:00 PM:** The City holds an EOC Briefing.
- **3:00 PM:** CVAIMT holds a Regional Conference Call to gather updates on the WTP status.
- **3:34 PM:** City employees receive notice of the water restoration updates.
- **4:00 PM – 7:00 PM:** The City provides hourly updates to the public on WTP restoration and urges them to conserve water until full restoration is completed.
- **5:26 PM:** SitRep #5 is posted in WebEOC.
- **6:00 PM:** The City holds an EOC Briefing.
- **8:00 PM:** City employees receive notice that the City will remain closed due to water restoration efforts.
- **8:00 PM:** The City holds meetings with various stakeholders about water distribution.

- The majority of 311 calls are related to the ongoing incident; RPD and 311 establish direct communication for water distribution coordination. The VNG is placed on standby to provide water distribution support but are not deployed yet.
- Henrico issues a countywide BWA. Goochland follows when they see the advisory is released.
- 56 personnel are recorded in the EOC through sign-in tracking; however, the Food Unit from the 911 Call Center estimates 80–100 people in the EOC.

Thursday, January 9

- **Morning:** More than 180,000 liters of potable water were provided.
- **Morning:** The Interim CAO calls for engineers to be stationed at the WTP.
- **7:00 AM:** The City holds an EOC Briefing.
- **8:00 AM:** CVAIMT holds a Regional Conference Call to gather updates on the WTP status.
- **8:30 AM:** The City, Henrico, Hanover, and Chesterfield Administrators hold a call.
- **9:01 AM:** SitRep #7 is posted in WebEOC.
- **10:30 AM:** 11 PODs operate until sites no longer have water or residents requesting water.
- **11:30 AM:** The Policy Group holds a meeting.
- **12:00 PM:** The Mayor hosts a press conference providing an update on WTP restoration.
- **1:00 PM:** The City, Chesterfield, Hanover, Henrico, and CVAIMT hold an Emergency Management Coordination call.
- **2:00 PM:** The City holds an EOC Briefing.
- **2:30 PM:** The City holds a City Executive Team Meeting.
- **2:30 PM:** Additional PODS are opened to the public from 2:30 – 6:30 PM at the following locations:
  - Meadowbridge Community Market,
  - Gilpin Community Garden,
  - Fonticello Food Forest, and
  - Circle Thrift.
- **3:00 PM:** Water test sampling begins.
- **3:00 PM:** CVAIMT holds a Regional Conference Call to gather updates on the WTP status.
- **3:49 PM:** SitRep #8 is posted in WebEOC.
- **4:30 PM:** The Policy Group holds a meeting.
- **6:00 PM:** The City holds an EOC Briefing.
- **7:20 PM:** SitRep #9 is posted in WebEOC.
- VDEM requests the City to share cost estimates by Monday.

- An email is shared to City employees providing direction on how to log codes for the financial system. The City requests that departments provide them by Saturday 12:00 PM.
- DSS provided cold-weather kits to community members.
- 72 personnel recorded in EOC through sign-in tracking.
- One WebEOC entry was recorded.

Friday, January 10

- **7:00 AM:** The Policy Group holds a meeting.
- **8:00 AM**: The City holds an EOC Briefing.
- **8:00 AM:** CVAIMT holds a Regional Conference Call to gather updates on the WTP status.
- **10:00 AM:** The Mayor hosts a press conference providing an update on WTP restoration.
- **2:00 PM:** The City holds an EOC Briefing.
- **3:00 PM:** The water test sample passes**.**
- **3:00 PM:** CVAIMT holds a Regional Conference Call to gather updates on the WTP status.
- **5:16 PM:** SitRep #10 is posted to WebEOC.
- **6:00 PM:** All 11 PODs close.
- **6:00 PM:** The City holds an EOC Briefing.
- **6:44 PM:** SitRep #11 is posted to WebEOC.
- **Evening:** Volunteers are demobilized.
- **Evening:** A public notice is shared about a Winter Weather Storm going into effect for snowfall expected to start around 8:00 or 9:00 PM.
- 112 personnel are recorded in the EOC through sign-in tracking.

Saturday, January 11

- **7:00 AM:** The City holds an EOC Briefing.
- **9:00 AM – 1:00 PM:** The VNG takes over water delivery for those in need through 311 throughout the remainder of the BWA.
- **9:00 AM:** SitRep #12 is posted to the WebEOC.
- **10:00 AM:** The City, Chesterfield, Hanover, Henrico, and CVAIMT hold an Emergency Management Coordination call.
- **11:00 – 11:30 AM:** VDH advises via email that the BWA can be lifted for Hanover County, Henrico County, and the City of Richmond.
- **11:30 AM:** The City lifts the BWA.
- **12:20 PM:** A WebEOC entry states that VDEM Region 1 was notified that the VNG will complete their deployment and demobilize by close of business today.
- **2:16 PM:** SitRep #13 is posted to the WebEOC.

- **Afternoon:** The Mayor hosts a press conference providing an update on WTP restoration.
- **1:00 PM**: The City holds an EOC Briefing.
- **2:30 PM:** The EOC is deactivated.
- 54 personnel are recorded in the EOC through sign-in tracking.

Sunday, January 12

- **11:00 AM:** The CVAIMT holds a Demobilization Meeting.
- **2:00 PM:** The City holds a Weather Briefing Call.

Monday, January 13

- The EOC is fully demobilized.

Findings and Recommendations

FEMA Core Capability Performance

#	FEMA Core Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
1	Planning		S		
2	Operational Coordination			M	
3	Operational Communications			M	
4	Situational Assessment		S		
5	Public Information and Warning		S		
6	Logistics and Supply Chain Management		S		
7	Economic Recovery		S		
8	Long-term Vulnerability Reduction	P			

Planning

FEMA Core Capability	FEMA Core Capability Definition
Planning	Conduct a systematic process engaging the whole community as appropriate in the development of executable strategic, operational, and/or tactical-level approaches to meet defined objectives.

This capability lays a foundation for emergency response operations. Planning played a crucial role in the City's response, as pre-disaster and in-the-moment planning led to quick and effective mobilization of resources and staff wellness efforts. However, gaps in planning led to disorganization in resource requests and coordination, an unclear command structure, confusion over roles and responsibilities, and inconsistent documentation practices during the incident. The need for additional planning and training was a common theme identified by a majority of staff engaged in the development of this Incident Response Assessment. To enhance the City's readiness posture for future events, the City should develop, train on, and utilize emergency operations and Continuity of Operations Plans (COOPs).

Strengths

Observation 1.01

Established Emergency Operating Procedures and Transition into Emergency Response Roles: Some City departments are familiar with and trained in emergency operating procedures. Departments that regularly serve as support staff in the EOC have their own pre-developed processes and resources, providing for strong internal communication between field operators and their peers in the EOC. This led to more streamlined efforts across these groups. During response, staff needed to shift roles quickly to support efforts in an ad hoc manner as needs were identified and assigned. Staff seamlessly transitioned into emergency roles, showcasing adaptability. Often, staff found themselves taking on new roles with responsibilities outside their day-to-day responsibilities. Additionally, many had not been trained on the responsibilities within these roles prior to the event but proved themselves capable of quickly taking on new responsibilities. City staff continually expressed interest in cross-agency, regional trainings and exercises, indicating a commitment to preparedness. It was noted that there was an effort made to develop a four-year training schedule in 2022, however there have been challenges carrying out the schedule.

RECOMMENDATION 1.01 (A)

Develop a multi-year City-wide Integrated Preparedness Plan (IPP) according to FEMA guidance, outlining City-wide planning, exercise, and training goals and priorities and a corresponding schedule in coordination with City departments and agencies participate in the City's overall emergency preparedness and response efforts (e.g., public safety, operational departments, Finance, etc.). Develop and include baseline training

requirements in the IPP by EOC position classification, including specific training requirements for Councilmembers and City leadership.

RECOMMENDATION 1.01 (B)

Provide cross-training to all staff to enhance flexibility and preparedness for future incidents, which will likely require additional staff capacity to implement. Enhance training and exercise opportunities to cover diverse scenarios and ensure all City staff are adequately prepared.

Observation 1.02

Planning for Priority Populations: Led by the Human Services Portfolio, City staff effectively connected with the community to engage priority populations, creating a tracking spreadsheet for various vulnerable groups. This spreadsheet was utilized during the incident to support the provision of assistance to these populations. PODs were chosen by the City based on proximity to vulnerable populations.

RECOMMENDATION 1.02

Continue to refine and expand the vulnerable populations spreadsheet, ensuring it is regularly updated and utilized by all relevant departments. Maintain best practice of prioritizing distribution to specialty populations and ensuring equity and sustainability considerations are integrated throughout preparedness, response, and recovery initiatives.

Observation 1.03

Fire Department Plan Development: During the event, the RFD produced a plan for how to fight fires in the absence of water, which can be utilized by the City and other partners in the future if needed. Additionally, buildings were placed on fire watch.

RECOMMENDATION 1.03

Update or create City COOPs to integrate impacts to City infrastructure and utility outage events (e.g., major water disruption).

Observation 1.04

Employee Wellness: The Human Resources Wellness team brought wellness resources into the EOC, and the City provided consistent meals to the EOC staff throughout the EOC activation. The employee wellness components garnered positive feedback by many staff on site. Additionally, the Food Unit integrated exceptionally well, ensuring enough food and proper nutrition all while working to keep costs down.

RECOMMENDATION 1.04 (A)

Formalize wellness programs drawing from efforts conducted during this incident to ensure consistent support during emergencies, including designated breaks and meal provisions.

RECOMMENDATION 1.04 (B)

Create Food Unit plan (managed by a designated Logistics team if activated) that takes into account both staff at the EOC as well as other sites as appropriate (e.g., at PODs). Integrate into EOC activations and exercises as appropriate.

Areas for Improvement

Observation 1.05

Use of the Emergency Operations Plan (EOP) and Emergency Management Awareness: The EOP was not utilized as intended during the recent incident. However, the EOP includes a floor plan to help staff set up the EOC, which was mostly followed except for a few areas including signage, table designations, appropriate power access, and technology placement. The EOP requires the City to keep up-to-date contact details for staff; however, upon revision of the existing list, staff noted it was outdated and did not include contact information for all key response personnel (of note, there were recent personnel changes including but not limited to a new mayoral administration). Additionally, multiple employees noted the EOP was not always shared physically or utilized at tables across the EOC. Many employees stated they did not know there was an EOP. Though key roles were defined in the EOP, there was a lack of clarity regarding roles and responsibilities across the EOC and at PODs, which hindered emergency operations.

Additionally, roles within the EOP cannot provide the level of detail necessary to explain the roles needed for this specific event. As such, alternative forms of explanation and communication of roles and responsibilities would have helped provide teams guidance in executing tasks. Key hindrances identified included confusion regarding who was coordinating teams across the EOC or at PODs, how and how often to share information on tasks and needs, and how to manage or report resource requests and issues.

Additionally, some City employees mentioned which Emergency Support Function (ESF) they were in, illustrating that City staff are not aware of the current organizational structure of the EOC (i.e., Portfolios). Other City employees expressed confusion about the transition from ESF structure to Portfolio structure, noting that they have not been trained on this new structure. Non-emergency management staff's understanding of emergency operations and their responsibilities remains limited. Many staff reported never having taken training on their roles during a response and others reported a misalignment of their emergency roles with their day-to-day tasks, noting there may have been a more efficient distribution of tasks across capabilities. As a result of this lack of pre-existing knowledge, staff experienced difficulties completing tasks.

RECOMMENDATION 1.05 (A)

Update roles and responsibilities in EOP, validate with partners, and regularly socialize and train on emergency operations procedures and plans with those partners, practicing activation in different types of scenarios (e.g., power outage). Emergency operations procedures and plans should be accessible to all staff during an emergency and each team should be aware of their unique roles and responsibilities within the determined and approved response organizational structure. Incorporate Just-In-Time training opportunities for pre-incident awareness and readiness.

RECOMMENDATION 1.05 (B)

Add emergency operations procedures and plans, including the EOP, in PowerDMS and require each City employee involved in emergency response to sign off that they have read this document.

Observation 1.06

WebEOC Access and Use: Many staff reported WebEOC was not utilized effectively throughout the incident. Some staff reported sharing updates through WebEOC, but did not see updates uploaded across teams consistently. Many staff in the EOC did not activate their user identification within the system prior to the incident, leading to DECPR-IT needing to dedicate large portions of time activating users early in the response. Additionally, many staff have not taken training on WebEOC despite monthly trainings being available since 2017 and reported unfamiliarity with the system. This led to inconsistent and sporadic use of WebEOC during this response. Staff updates were shared verbally, leading to inconsistent information tracking, duplication of efforts, and confusion.

RECOMMENDATION 1.06

Implement mandatory bi-yearly training sessions for all EOC staff on WebEOC and ensure users regularly access the platform using their login credentials. DECPR should routinely review the WebEOC user list for updates and continuity. Identify opportunities to use WebEOC during blue skies (e.g., inter-agency meetings or special events) to familiarize City staff with the platform. Develop training requirements by EOC position classification (e.g. EOC Leadership, EOC Staff, first responder, etc.) and include in the IPP; add WebEOC training as a requirement for specific position classifications.

Observation 1.07

Use of Standard Operating Procedures (SOPs): Some SOPs were not utilized as intended during this incident. Instead of using the pre-defined procedure in place to track 311 calls, the decision was made to track calls in an ad hoc spreadsheet. This was done because the City did not initially understand the complexity and impact of the incident and thought the call center would be open for a shorter time period than what was ultimately needed. Within five days, over 1,000

calls were received and stakeholders feared that some information became inaccurate, noting it took a longer time to input things manually into the spreadsheet. Also, because the program was not used, 311 staff had to manually delineate which addresses were within City limits.

RECOMMENDATION 1.07

Inventory and utilize tools and resources in place for an effective incident response (e.g., SOPs, WebEOC). Integrate use of tools and resources into trainings.

Observation 1.08

Employee Wellness: Staff reported being overworked and undervalued, leading to fatigue and decreased decision-making capabilities. Staff noted a lack of clarity about how long their shifts were, with many staying at the EOC for 12+ hours at a time, which led to exhaustion. Typically, EOC operational periods are 12 hours, (i.e., 7 am shift change and 7 pm shift change). Departments and partners are not required to follow that but must provide their staffing plan; some utilize 8 hour shifts to avoid burnout.

RECOMMENDATION 1.08

For the EOC, formalize staff operational periods (12 hours or less) into planning to support optimal staff performance during a multi-day incident.

Observation 1.09

Gaps in Preparedness Plans: Richmond lacks formalized or updated critical emergency management plans, including a Mass Casualty Incident (MCI) plan, Family Reunification Center (FRC) plan, Family Assistance Center (FAC) plan, POD plan, Resource Management, Crisis Communications, and Active Threat/Shooter plan. It is worth noting that some of these plans are currently in draft or in development by the City.

RECOMMENDATION 1.09 (A)

Develop a schedule for creating and updating plans; integrate this schedule into the IPP.

RECOMMENDATION 1.09 (B)

Develop and/or finalize the following emergency operations plans: POD Plan, Resource Management Plan, Crisis Communications Plan, Volunteer and Donations Management Plan, MCI Plan, FRC Plan, FAC Plan, Active Threat/Shooter Plan. Include key stakeholders in development of each plan.

Operational Coordination

FEMA Core Capability	FEMA Core Capability Definition
Operational Coordination	Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.

This capability highlights the importance of an operational structure and process based on clear chains of command and systematic unified situational awareness across teams involved in the response. Operational Coordination was key to this incident response to ensure decision-makers, City partners, and City staff were aligned in their efforts. Teams engaged in this effort were able to coordinate through ad hoc and informal mechanisms to plan and execute operations. At the same time, opportunities for improvement were observed in areas such as the initial notification of response personnel, consistency of situational updates, clarity of command roles, and duplication of efforts. To enhance future responses, the City may benefit from strengthening operational coordination by establishing a clearly defined command structure that supports a unified approach and process for all stakeholders involved.

Strengths

Observation 2.01

Functional Workspace with Technology Readiness: The library provided an organized and adequately sized space, and the EOC had the necessary equipment and communication tools. The library provided space for the main EOC spaces, as well as break-out spaces for additional groups, such as VDEM and the CVAIMT, to set up.

RECOMMENDATION 2.01

Continue working with the EOC facility and DECPR-IT to ensure readiness for EOC activation in the future.

Observation 2.02

Flexibility and Dedication: Staff and volunteers adopted roles as needed. Many stakeholders noted that a culture of stepping up without hesitation was evident. City departments and agencies (e.g., RAA, RPD) effectively pivoted to support water distribution while maintaining core services. Volunteers played a key role in water distribution. Staff highlighted the effort and dedication provided by volunteers supporting water distribution, especially considering the conditions they faced (e.g., working at sites with no running water or working bathrooms).

RECOMMENDATION 2.02

Acknowledge the hard work of City staff and volunteers throughout and after incident responses to encourage and maintain a culture of preparedness and readiness to respond.

Observation 2.03

Mayoral Involvement: The Mayor, three business days into the position, played an active role in facilitating response efforts, and City staff noted that the new Mayor and staff managed the incident well despite their recent appointment. Staff highlighted the Mayor's expertise in managing emergencies, open lines of communication to the public, and dedicated involvement in the efforts.

RECOMMENDATION 2.03

Clearly define the roles and responsibilities of City leadership in the EOP and train City leaders and their teams on emergency management protocols.

Observation 2.04

Timely External Support: The CVAIMT arrived early, setting up operations at the City EOC and providing rapid assistance. They provided support to water distribution operations, managing resource requests and coordinating on-site efforts. City staff highlighted the benefits of the CVAIMT's support in terms of increased efficiency, knowledge base, and experience.

RECOMMENDATION 2.04

Continue to call upon resources available during an emergency event (such as MOUs, Mutual Aid Agreements [MAAs], and Incident Action Plans [IAPs]), making sure to clarify the scope and need for each resource. Maintain a list of these resources (MOUs, MAAs, etc.) for City staff to leverage in one place. Update on a bi-yearly basis.

Observation 2.05

Regional Relationships: Pre-existing connections with external partners enabled quick coordination. For example, strong relationships allowed Virginia Commonwealth University (VCU) Health to prepare ahead of the BWA. The VCU Health team said that because they have good relations with the Department of Emergency Communications, Preparedness and Response – Office of Emergency Management (DECPR-OEM), they heard about the BWA just an hour before the City lost water pressure. This information led to VCU Health convening its leadership just in time. Additionally, the City and VCU Emergency Management created the Richmond City Coordination Team to get their respective emergency management staff together for information-sharing and relationship-building. The VCU Emergency Management staff were at the City's EOC and served as a force multiplier for DECPR-OEM to support EOC operations.

RECOMMENDATION 2.05

Document stakeholder contact information and coordination processes to ensure continued regional partnerships in future activations.

Areas for Improvement

Observation 2.06

EOC Space: When the EOC was initially set up there were several challenges including: a lack of available power outlets, misallocation of tables to Portfolio groups, no signage, lack of meeting space for the Policy Group, misplaced monitors, and technology being used to show irrelevant information (e.g., car crash rates in the City). Of note however, the team that set up the EOC did so with the equipment that was in place.

RECOMMENDATION 2.06

Identify a dedicated space for an EOC so the City can immediately respond from the EOC. The space needs to be cleared of any on-going events and equipment and furniture should be set up according to the guidance in the EOP.

Observation 2.07

Incident Command Structure: The absence of a clear chain of command in the EOC led to confusion in decision-making during emergency responses. Though the EOP includes an organizational chart for the EOC, this was not consistently implemented nor understood by staff on site. Staff noted the EOC teams (i.e., Portfolios) worked independently of each other. Some staff reported not knowing who was managing the EOC early on during the response but noted a significant improvement in the EOC chain of command once the EOC Manager was identified on Tuesday, January 7, morning.

Though EOC Leadership on site had decades of EOC experience (i.e., the dayshift EOC Manager had over 15 years and the night shift EOC Manager had over 20 years of EOC experience), their expertise was not fully utilized during the incident. Additionally, since the night shift EOC Manager (with more years of experience) was on leave at the time of the incident, once arriving at the EOC, they were assigned to the only remaining EOC leadership gap, the night shift; as a result, their experience was not utilized to its fullest potential. Additionally, the current Emergency Coordinator also serves as the 911 Director, dedicating only 50% of their normal day-to-day time to emergency management. As a result, stakeholders with previous experience in emergency responses noted a lack of experience within leadership at the EOC, especially during the initial days prior to the assignation of the EOC Manager.

Examples of gaps highlighted included not prioritizing setting up a Joint Information Center (JIC), lagging in setting up and maintaining processes to gather data across teams, and not enforcing a chain of command, which led to inconsistent messaging, ad hoc coordination, and duplication of efforts.

RECOMMENDATION 2.07 (A)

Clearly delineate the command structure and ensure all staff understand the chain of command prior to future activations. Establish mandatory and regular training to support EOC leadership in executing their roles and ensuring preparedness for future activations.

RECOMMENDATION 2.07 (B)

Provide the Emergency Management Coordinator with the necessary capacity, by increasing DECPR-OEM staffing to support daily activities.

Observation 2.08

Nightshift Staffing: Due to the lack of guidance surrounding staff expectations and shift protocols, some teams within the EOC did not know to consistently dedicate staff to be on call during night shifts and/or maintained overlapping shifts, causing a lack of staff to be available for 24/7 coverage. Though there was consistent Policy Group presence at the EOC throughout the incident, during the evening of January 7th and through the rest of the incident, staff at the EOC did not know that there were members of the Policy Group present in the EOC at night. While the night shift EOC Manager had immediate access to leadership via telephone, this highlights the lack of clear shift protocols and EOC-wide cross-team coordination and situational awareness.

RECOMMENDATION 2.08

Update and train staff on EOC shift protocols, which should outline standardized timetables and shift expectations across teams (e.g., sign in and sign out processes, on site versus on call expectations). Protocols should ensure at least one staff member across key teams and a representative of the Policy Group is present in the EOC and available to the EOC night manager, commensurate with the level of EOC activation. The EOC Activation phase should clearly define which senior departmental leadership representatives are expected to be active in the EOC. Unless or until this is designated, City staff should provide in-person presence until otherwise stood down by the EOC Manager.

Observation 2.09

Sign-in Sheets: Sign-in sheets at the EOC were implemented by a staff member beginning on Tuesday, January 7 (i.e., the day after activation) and were not used by everyone. As a result, many staff were not made aware that they needed to sign in during the initial activation and did not sign in. Additional confusion was noted due to the sign-in table being located in the basement of the library, as opposed to at the entrance. Additionally, prior to Tuesday, January 7, there was no control over who was entering or exiting the EOC, leading to issues with access. Security noted that they were told to let anyone in, regardless of if they have credentials.

RECOMMENDATION 2.09

Maintain up-to-date contact lists and require virtual and paper copies of sign-in sheets for all EOC activations as well as required virtual copies of sign-in sheets for all virtual activations via WebEOC. A staff member should be assigned to ensure the accuracy and timeliness of sign-in sheets and save the sign-in sheets to a central location that can be accessed post-incident. Additionally, the sign-in table should be located at the entrance of the EOC for in-person activations.

Observation 2.10

Understanding Operational Capabilities and Resources: Due to duplication of efforts and confusion across City teams requesting resources, there were inconsistencies in the types of resources requested, and too many resources and staff needed to transport, process, and distribute resources being requested.

RECOMMENDATION 2.10 (A)

Provide training in operational capabilities and resource mobilization. This training can include using EOC communication methods and information-sharing platforms (e.g., WebEOC) to emulate real-world roles and responsibilities.

RECOMMENDATION 2.10 (B)

Maintain consistent information sharing through centralized communication starting at the leadership level to maintain a clear structure of responsibilities and avoid duplication of effort.

Observation 2.11

Use of the Regional CVAIMT: Staff were unsure how to fully utilize CVAIMT capabilities with regard to resource management. The CVAIMT is an external regional agency brought in by City leadership to support City response operations. There were inconsistent opinions across staff on the scope of the CVAIMT's role during the incident. Their mission evolved over the seven days they were on-site until they were given responsibility for water distribution. Multiple staff noted not understanding what the CVAIMT had been brought in to support, while others highlighted that the CVAIMT continually offered support but was not actively engaged early in response. Additionally, some staff noted the potential impacts of integrating an external regional partner into the EOC, including differing work cultures and interests.

RECOMMENDATION 2.11

Establish a City-specific Type IV Incident Management Team (IMT) and offer IMT trainings to City staff that may be involved in this effort. A dedicated program manager would help ensure the team develops. Until a City-specific IMT is established, coordinate with the

CVAIMT and City leadership to highlight specific areas where the CVAIMT can be utilized to support future response operations.

Observation 2.12

ICS Principles: Utilizing ICS principles, the WTP should have been designated as an incident site, establishing a clear communication and coordination structure between the EOC and the incident site. This would have enabled a formal command and control structure between the EOC and Incident Site, with an assigned EOC Liaison at the WTP reporting back to the EOC, and an assigned DPU Liaison at the EOC translating information for EOC consumption and decision-making. Additionally, some staff and external partners with ICS expertise mentioned the lack of consistent use of ICS terminology and principles across teams during this effort. The EOC can benefit from increased use of ICS principles, including implementation of the Planning P (i.e., EOC Action Planning), regular meetings to coordinate operations, tactics, and planning efforts between EOC briefings, and aligning the internal operational schedule with the public release of information.

RECOMMENDATION 2.12

Review the EOP to promote alignment with ICS principles and integrate ICS principles in the IPP. Offer ICS trainings to City staff involved in emergency response. Complete annual exercises with City staff and partners utilizing ICS principles.

Operational Communications

FEMA Core Capability	FEMA Core Capability Definition
Operational Communications	Ensure the capacity for timely communications in support of security, situational awareness, and operations by any and all means available, among and between affected communities in the impact area and all response forces.

This capability emphasizes the need for communication to be timely and accurate between all stakeholders involved (i.e., City leadership, response personnel, and City residents). Operational Communications played a vital role in this response, as internal communication processes in place laid a good foundation for communication during emergency operations, and teamwork facilitated ad-hoc information-sharing and problem-solving with the EOC and in the field. However, situational assessment was directly affected by gaps in initial notification and incident awareness, siloed information, and inconsistent communication pathways. Stakeholders at every level were impacted by a lack of transparent, timely, and accurate communication, which led to confusion about the situation at hand. Failure to communicate was highlighted at the onset of the WTP event and throughout the response after that. The City should establish clearer protocols for timely and transparent information-sharing, use mechanisms for distributing updates across all levels of response (e.g., WebEOC, SitReps, Executive Briefings), and ensure that communication pathways remain structured and inclusive during emergencies.

Strengths

Observation 3.01

Initial Council Communication: All Councilmembers were informed of the EOC activation immediately following the decision to activate at the leadership meeting on Monday, January 6, at 1:00 PM.

RECOMMENDATION 3.01

Mirror the communication practices illustrated at a City-wide scale, informing all relevant stakeholders of EOC activation as soon as possible.

Observation 3.02

Internal Communication: Stakeholders reported effective internal communication within their specific teams. Staff coordinated internally and with their individual department lead to execute tasks, report updates and concerns, and manage day-to-day operations. Staff who were stationed outside the EOC also noted effectively coordinating with their individual teams throughout the effort via phone calls or messaging.

RECOMMENDATION 3.02

Identify what platforms City departments and agencies are using for effective communication (e.g., Microsoft Teams Chat) and implement use at a City level for a holistic approach to communication during an emergency.

Observation 3.03

Policy Group Communications: Within the Policy Group room, there was a regular cadence of briefings and information sharing.

RECOMMENDATION 3.03

Maintain strong communication practices within the Policy Group room and extend them outside of the room to the entire EOC as well.

Areas for Improvement

Observation 3.04

EOC Activation Notification – Approach: Initial EOC activation notifications were sent out in a disjointed manner. Many City employees received a text message requesting them to come into the EOC by 3:00 PM, Monday, January 6, if at all. A robocall was also sent to some employees. Other partners and stakeholders only heard of the activation if someone they knew personally was able to reach out to them. The main communication system, CodeRed, did not have updated contact information, so many new people did not receive communications, or messages were sent to the wrong devices (e.g., texts were sent to landlines). Note – the City was in the process of transitioning CodeRed to a new emergency communications application, Everbridge, at the time of the incident.

RECOMMENDATION 3.04

Use the City's new notification tool to disseminate clear and timely information to the appropriate City stakeholders in future EOC activations. Establish SOPs that ensure periodic testing of the system, review and update City contact information, address the timing/sequencing of releasing emergency notifications to City staff, and establish redundant communications mechanisms (e.g. distro lists).

Observation 3.05

Initial Information to Staff: City staff were unclear on where to go and who to report to during the initial activation period. Some staff noted needing to reach out to their superiors to find out the location of the EOC. Additionally, upon arriving at the EOC, staff were not initially instructed in a structured manner where to go and who to report to. Some staff noted waiting without anything to do for a while before any instructions were given. Additionally, originally, the designated signs for each Portfolio were not visible, as no signage was put up until DECPR-OEM staff arrived. EOC

guidebooks were not put out on tables until DECPR-OEM staff arrived and finished setting up the EOC. This level of instruction and guidance was instituted as the emergency continued.

RECOMMENDATION 3.05

Provide physical and electronic copies of the current EOC guidebooks for City employees outlining reporting locations, responsibilities, and points of contact and reference the guidebooks during EOC Briefings to ensure staff are aware of the resource. Ensure the EOC layout developed by DECPR-OEM is implemented when the EOC is initially set up. Update EOC guidebooks based on best practices and lessons learned during this event.

Observation 3.06

Incident Awareness: The City lacked unified messaging to stakeholders so the Commonwealth (i.e., VDH) led an initial coordination call on the evening of January 6 to provide situational awareness to key stakeholders. Some response personnel and City residents learned of the water supply disruption informally rather than through official channels. A Reddit user posted about the incident at the WTP on January 6 at 3:07 PM to the Richmond, Virginia subreddit. Additionally, information flow regarding updates to the WTP continued to be inconsistent throughout the response, especially for staff stationed outside the EOC, leading to some staff using alternative means of gathering information, including Councilmember's online posts.

RECOMMENDATION 3.06 (A)

Identify key stakeholders prior to incidents and maintain updated contact information for effective communication. Expand communications beyond EOC staff to include all contributors in response efforts (e.g., staff and partners at PODs and the 311 center). Consider establishing incident-specific distribution chains as needed to ensure appropriate information flow.

RECOMMENDATION 3.06 (B)

Implement an internal priority notification system to ensure key stakeholders receive emergency updates before public releases, using designated representatives and a secure communication channel.

Observation 3.07

Technical Expertise: Initially, the technical complexities at the WTP were not communicated clearly to the EOC and City leadership. There was initial confusion about the metrics being used to provide updates on the water restoration process, and the information coming from the WTP to the EOC was not always accurate early in the incident. For example, the City was not originally given an accurate timeline on anticipated water restoration. To rectify this information-sharing gap, the Mayor and a representative from the CAO's Office went to the WTP, both arriving on January

7th. By being onsite and calling upon subject-matter expertise at the WTP, they were able to get clarification on the complexity of the issue and the status of water restoration.

RECOMMENDATION 3.07

Foster effective, transparent communication between field operations and the EOC by ensuring City department emergency liaisons are trained to provide accurate and consistently up-to-date technical expertise. If the department emergency liaison lacks the necessary technical expertise to ensure proper and timely decision-making, quickly identify the appropriate technical experts early in the incident and ensure they are included in the incident response organizational structure.

Observation 3.08

Communications to the Council: Messaging to the Councilmembers changed over the course of the incident to try to align with Councilmember preferences for information. Councilmembers were initially emailed and called, but this communication avenue did not work well for everyone. To accommodate the preferences of Councilmembers, communication was conducted on an individual basis and a Council liaison was established. However, some Councilmembers continued to receive information from other stakeholders in the EOC, leading to inconsistencies in information Councilmembers were receiving, with some noting an excess of information and others information gaps. It was noted that all Councilmembers were not always made aware of key decisions prior to the public being notified (e.g., BWA). Due to the role of the City Council as a link to the public, this increased the level of potential misinformation and inconsistent messaging to the public.

RECOMMENDATION 3.08

Establish a standardized communication process for Councilmember updates, designating a liaison, ensuring the City Council Chief of Staff is included in all communications, and using a structured briefing schedule or centralized messaging platform for consistency.

Observation 3.09

Information Flow Down the Chain of Command: Gaps in communication from EOC leadership and the Policy Group to EOC staff created an information imbalance. The EOC Manager provided updates to the staff at the EOC at 7am, 2pm and 6pm; however, these updates were inconsistently shared with staff working off-site or at PODs. As a result, staff supporting operations were provided with information inconsistently. Stakeholders involved in the response reported finding out critical information at the same time as the public, leading to an uncoordinated response. Critical information occasionally slipped through the cracks, affecting procurement and decision-making. Some stakeholders noted there were many briefings with little to no updates, or that they were scheduling briefings but not staying true to the announced start time (e.g., starting briefings

earlier than scheduled). City partners who needed to attend the meetings would hold times on their calendars and try to schedule around the meetings, but at times needed to miss the meetings due to an inconsistent scheduling frequency. Inconsistent information-sharing schedules led to delays in key decisions, lack of proper updates within communication chains, and slow response times.

RECOMMENDATION 3.09 (A)

Standardize communication between leadership and EOC staff through a centralized communication platform and clear documentation of key decisions and action items.

RECOMMENDATION 3.09 (B)

Coordinate briefings for City staff and relevant stakeholders, scheduled prior to public briefings and press releases. Establish a structured meeting schedule that aligns with operational needs and staff availability. Hold Policy Group meetings before EOC briefings to ensure decisions are made in advance and shared efficiently, whenever possible. All necessary information from the Policy Group meeting decisions should be shared with EOC leadership. Consider integrating ICS concepts of EOC Action Planning to establish a cadence and structure, while ensuring that life-saving information is quickly and appropriately relayed.

Observation 3.10

Information Flow Up the Chain of Command: There were no formal mechanisms for response personnel to pass information to decision-makers. Additionally, City staff stationed in the EOC noted that they could not access the Policy Group room, where leadership was housed for the majority of the incident. However, it is worth noting that it is standard practice to keep Policy Rooms closed during meetings to support effective decision making. Some staff noted that personnel were turned away during closed Policy Group meetings and were instructed to provide important/urgent messages to the employee assisting with control access to pass along to the Policy Group.

RECOMMENDATION 3.10

Establish formal mechanisms for staff to pass information on to decision-makers (e.g., One-pagers for Executive Leadership for more comprehensive reporting, utilizing digital platforms, and employing written over verbal communication when the Policy Room is closed) to promote more comprehensive and accurate information flow from EOC staff to the Policy Group.

Situational Assessment

FEMA Core Capability	FEMA Core Capability Definition
Situational Assessment	Provide all decision-makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response.

This capability supports an effective response, providing a clear picture of evolving conditions and guiding decision-making at every step of the incident. Best practices such as SitReps and EOC briefings allowed for some level of situational awareness for response personnel. Over time, communication between the WTP and EOC improved, offering a more accurate depiction of operational capabilities. However, early gaps in situational awareness created confusion and unclear metrics made it difficult for decision-makers to interpret key information. Within the EOC, SitRep inconsistencies and a lack of a defined information-sharing cadence caused challenges. The City should enhance situational awareness practices by (1) standardizing reporting formats, timelines, and distribution protocols, (2) ensuring that key essential elements of information related to decision-making are clearly defined early on, and (3) establishing a structure for information-sharing verbally and via written communication.

Strengths

Observation 4.01

SitReps: DECPR-OEM took the lead in providing situational awareness through verbal EOC briefings and formal SitReps starting on Tuesday, January 7. This is a standard best practice that increased information flow and situational awareness within the EOC.

RECOMMENDATION 4.01

Maintain the momentum of regular situational updates to enhance awareness among all stakeholders involved in emergency response throughout the entire duration of the response (i.e., starting at EOC activation and ending at demobilization).

Observation 4.02

Restoration Communication: WTP restoration status was communicated frequently to the EOC, starting on Tuesday, January 7. This provided the EOC staff with additional information to make decisions and gave EOC staff a sense of the bigger picture to help contextualize their efforts.

RECOMMENDATION 4.02

Throughout the incident period, maintain frequent and structured status updates to the EOC, ensuring that information is clearly documented and readily available for operational planning.

Areas for Improvement

Observation 4.03

Common Operating Picture: There was no clear common operating picture at the EOC, in part due to the lack of WebEOC use, which strained information flow across the EOC, WTP, and PODs. Additionally, dashboards and information technologies intended for the display of "Essential Elements of Information" (EEIs) that enable effective decision-making were underutilized.

RECOMMENDATION 4.03

Integrate Department of Information Technology (DIT)/Geographic Informational System (GIS) staff into the EOC, establish pre-existing disaster dashboards, and utilize DIT/GIS staff to update data collection and display throughout the incident.

Observation 4.04

Disorganized Documentation Practices: Inconsistent documentation during the activation impaired both information tracking and decision-making. Staff reported that key information was often shared and received verbally (i.e., either in person across teams or via phone calls with staff located off-site or at PODs) but was not consistently documented throughout the incident. SitReps were introduced by an DECPR-OEM Planner in the EOC starting January 7. Although SitReps were developed and distributed during the incident, they frequently lacked comprehensive information. This was largely due to teams not fully understanding the need to contribute timely and complete input for their development. Initially, the SitRep template used was not well-suited for easy information transfer into WebEOC. A member of the IMT later updated the template to improve usability. While some stakeholders found the implementation of SitReps beneficial, others noted they never referred to them. Additionally, those physically present in the EOC often received oral briefings before the written SitReps were distributed. However, staff emphasized that the reliance on verbal communication introduced ambiguity and reduced the clarity of collected information. Within the EOC, information was often captured verbally, included in SitReps, and then shared during internal debriefings. However, this process was not mirrored for staff working outside the EOC, where information was neither requested nor shared with the same frequency, leading to inconsistent situational awareness across teams. Staff also reported that SitRep inputs came from too many sources, making it difficult to ensure consistency. They stressed the need for clearer expectations around team-specific SitRep submissions and the importance of holding regular briefings to improve cross-team communication.

Additionally, some stakeholders emphasized the importance of ensuring that situational updates are shared in a manner that preserves context and accuracy, particularly when dealing with complex or evolving information. City leadership and WTP personnel noted that written communications (e.g., emails, texts) sometimes raised concerns about sensitive security-related issues, which in turn contributed to delays as teams worked to ensure appropriate handling of sensitive or validate preliminary details.

RECOMMENDATION 4.04 (A)

Standardize the SitRep format based on the updated template established during this incident and provide training to ensure all staff understand how to complete them properly and consistently.

RECOMMENDATION 4.04 (B)

Streamline information gathering for SitReps, potentially using the Activity Log within WebEOC to improve efficiency and clarity.

RECOMMENDATION 4.04 (C)

Define and communicate a cadence for reporting to facilitate a more organized emergency response process.

RECOMMENDATION 4.04 (D)

Establish standardized documentation practices and ensure all staff are trained accordingly. Include protocols and mechanisms (e.g., WebEOC) that consider the type and sensitivity of information being shared. During the initial response phase of each incident, develop any additional incident-specific guidance that may be needed to complement these standard documentation practices and provide staff with the necessary information, guidance, and tools to follow all active documentation practices.

Observation 4.05

Restoration Communication: Although information was being shared, there was public and stakeholder confusion regarding what certain metrics (e.g., pump operations) meant, indicating a need for clearer explanations. It was also noted that the information the EOC was receiving was not always the most up to date.

RECOMMENDATION 4.05

Develop a communication strategy for each disaster to ensure that the complexity and impacts of the emergency and response efforts are clearly identified and relayed to decision-makers, stakeholders, and the public in real-time.

Public Information and Warning

FEMA Core Capability	FEMA Core Capability Definition
Public Information and Warning	Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard, as well as the actions being taken and the assistance being made available, as appropriate.

This capability emphasizes effective public messaging as a critical role in emergency response. In this response, the City ensured that residents remained informed about rapidly changing conditions and available resources. At times, timely and accurate public messaging helped maintain public trust, allowing residents to make informed decisions regarding water safety, PODs, and available services. However, some challenges in effectively notifying residents and disseminating consistent information hindered the response. The lack of coordination between different communication channels led to discrepancies in messaging, creating confusion among the public and response partners. Conflicting reports and misinformation further complicated efforts, sometimes causing unnecessary panic or underutilization of available resources. Strengthening notification systems, improving coordination among communication teams, and establishing clearer processes for unified messaging will enhance the City's ability to provide the public with critical information during future emergencies.

Strengths

Observation 5.01

Water Restoration Updates: The City provided the public daily mayoral briefings (January 7 – 11) and hourly press releases (January 8) on water restoration updates. Mayoral press conferences established to inform the public were accessible via multiple platforms and utilized American Sign Language interpreters.

RECOMMENDATION 5.01

Use best practices and lessons learned identified through this event to develop a Crisis Communications Plan. In the plan, establish a formalized structure for mayoral updates to maintain clear and consistent communication and integrate accessible messaging requirements for effective communication to the public during emergencies.

Observation 5.02

Accurate Information-Sharing: The communications team validated information with Portfolios before sharing it with the public.

RECOMMENDATION 5.02

Maintain the practice of verifying information with responsible City response teams before release.

Areas for Improvement

Observation 5.03

Public Notification: The use of CodeRed for public notifications, or "RichmondReady," was unclear, and internal communication regarding its use varied among staff. Some City residents reported hearing about the water supply interruption through informal channels (e.g., text messages in group chats, and Reddit).

RECOMMENDATION 5.03

Follow policy DECPR 2-45: Emergency Notification System, to include roles/responsibilities, approval authorities, and sequencing, for the use of "RichmondReady" public notifications to ensure timely and coordinated messaging. Train communications partners on the use of this tool in coordination with EOC Command.

Observation 5.04

Accessible Messaging Mechanisms: The communications team noted difficulty updating the City website. Although post-incident the City's website hosts a centralized repository for information on the "Water Crisis;" during the incident, the City relied on news outlets and Instagram to communicate emergency updates via the internet. Relying on Instagram in particular is an inaccessible solution, as it requires residents to have an Instagram account to view the City's posts. Messaging on water safety, including BWAs, was inconsistent across jurisdictions, causing public confusion. Additionally, some stakeholders noted that public messaging regarding water safety was not consistent or reassuring, resulting in a critical response from the public.

RECOMMENDATION 5.04 (A)

Invest in upgrading the City's website to serve as a reliable, centralized platform for emergency updates and resource coordination.

RECOMMENDATION 5.04 (B)

Develop a clear and consistent messaging strategy for relaying information to the public through virtual and in-person formats (e.g., using PODs as information-sites). Include guidance for sharing public safety information, including templates for health advisories. Integrate procedures and tools in the Crisis Communications Plan.

Observation 5.05

Publicly Available Resources: Though the City provided a level of information on updates regarding water distribution services at designated PODs, there were certain gaps in information surrounding services. For example, the City coordinated with faith-based groups to make showers available to the public for three days beginning on Wednesday, January 8; however, this information was not pushed out to the public. This led to an underutilization of services and resources provided and reduced the effectiveness of efforts across the EOC. Additionally, water PODs had inconsistent messaging on timing, amount of water, and how much could be given to each individual.

RECOMMENDATION 5.05

In the Crisis Communications Plan, establish a standardized process for disseminating information about all available public resources, including those coordinated with external partners. This should include integrating resource updates into official City communication channels such as press briefings, social media, the City website, and emergency notification systems to ensure comprehensive public awareness and maximize resource utilization. The Crisis Communications Plan should also address pre-planning for the integration of community leaders and partner organizations to ensure vulnerable populations are being notified in a timely manner.

Observation 5.06

311 Information-Sharing: Although residents were calling 311 to request updated information, 311 was not able to provide the most up-to-date information as they were relying on varied and unofficial sources for information. 311 stakeholders cited mayoral press conferences, the City's Instagram, and information from Councilmembers as their main sources of information.

RECOMMENDATION 5.06

Ensure the call center is staffed according to the scale of the response and that 311 operators receive direct, vetted updates from the EOC to improve the accuracy of information provided to the public.

Observation 5.07

Joint Information: The City did not activate a JIC during this incident. Though the need to activate a JIC was identified by both internal staff and external partners, the City chose not to activate it. This was potentially due to a lack of understanding of how a JIC functioned, the benefits it could provide, or confusion over whose responsibility it is to open the JIC. The absence of a JIC led to ununified, disorganized, and inconsistent public messaging. Conflicting information and misinformation spread throughout the course of the incident, causing public confusion and frustration. Information reported via media news outlets and spread on social media was not

always the most up-to-date information. Additionally, there was no coordination amongst the region to produce unified messaging on emergency updates to the public.

RECOMMENDATION 5.07

Establish JIC activation protocol in the Crisis Communication Plan in alignment with the National Incident Management System (NIMS) protocols, which at a minimum clearly assigns public information roles and responsibilities, contains pre-scripted messages for different types of incidents, and discusses cadence for internal and public messaging. The protocol should establish the JIC early in an incident to streamline coordination and prevent conflicting narratives, establish a chain of command, and identify which stakeholders will have access to information and when. Provide training to Public Information Officers (PIOs) and EOC staff to ensure coordinated public messaging. Account for different scales of activation within protocol (i.e., City declaration, Commonwealth declaration, Federal declaration) to ensure appropriate information flow across all public information stakeholders.

Observation 5.08

EOC Footage: Several stakeholders noted frustration with the media outlets that entered the EOC during the incident to take unauthorized footage of screens in the EOC with sensitive information.

RECOMMENDATION 5.08

Develop a new Media Policy to support incident site and EOC procedures. The plan should include requirements for always escorting the media through the EOC and informing staff of their presence prior to them coming onsite. Provide Operational Security (OPSEC) training to all EOC staff and City leadership. Alternatively, create stock footage of the EOC to facilitate media coverage while limiting access during critical response periods.

Logistics and Supply Chain Management

FEMA Core Capability	FEMA Core Capability Definition
Logistics and Supply Chain Management	Deliver essential commodities, equipment, and services in support of impacted communities and survivors, to include emergency power and fuel support, as well as the coordination of access to community staples. Synchronize logistics capabilities and enable the restoration of impacted supply chains.

This capability refers to the coordination, procurement, transportation, distribution, and tracking of critical resources (e.g., food, water, or medical supplies) needed to support response and recovery efforts. Effective logistics and supply chain management were critical in ensuring that water distribution efforts met community needs in a timely and organized manner. However, challenges such as disorganized resource requests, duplicate orders, lack of coordination among departments, and inaccurate burn rate estimates resulted in inefficiencies, delays, and underutilized resources. Without a clear logistics strategy, issues arose, including trucks arriving at PODs without the necessary staff or equipment, improper water packaging, and inconsistent distribution amounts. Strengthening logistics and supply chain coordination will improve response effectiveness, reduce waste, and ensure that residents receive timely and adequate support.

Strengths

Observation 6.01

Streamlined Resource Procurement and Cost Tracking: Some City departments utilized P-Cards for streamlined resource procurement. P-Cards provided departments with an efficient approach to conducting small procurements during the event and facilitated resource-gathering processes.

RECOMMENDATION 6.01

City departments that do not use P-Cards should consider using P-Cards for emergency procurement.

Observation 6.02

Water Distribution: Through this incident, the City was faced with the unique challenge of supplying residents with water over a prolonged period, an effort that the City has not performed in recent history. The City leveraged relationships with the Department of Parks, Recreation and Community Facilities and the Richmond Public Library and quickly sourced volunteers to staff ten sites by the evening of January 6 (i.e., the day of the equipment failure at the WTP). The City later sourced volunteers to staff 11 sites on January 9. Additionally, the City provided water directly to residents through homebound water distribution. During the event, the City faced the challenge of providing resources and aid to vulnerable populations who were unable to travel to PODs for

water and additional resources. However, the City successfully began utilizing 311 as a communications avenue for City residents to request water to support the needs of these populations.

Though facing a novel challenge, the City quickly coordinated internally and with external partners to procure resources needed for water distribution (e.g., water, tractor-trailers, manpower, and vehicles). City departments took on roles usually outside the scope of their emergency response roles (e.g., RPD delivered water). In this incident, the Human Services Portfolio spearheaded water distribution. Of note, DPW had an organized and strong response to the impacts of the Winter Weather Storm within their scope of work (e.g., debris clearance) and provided additional support by allocating resources (e.g., forklift drivers) for water distribution. The City was experiencing issues acquiring forklift drivers to support truck unloading efforts at PODs, and DPWs' efforts helped to respond to the critical resource needs. Through previous EOC activation experience, the department quickly and effectively scaled up to support the distribution of resources to the public in this unprecedented event.

RECOMMENDATION 6.02 (A)

Use best practices and lessons learned identified through this event to develop a Resource Management Plan. Identify roles and responsibilities for commodity distribution and integrate them into the plan.

RECOMMENDATION 6.02 (B)

Use best practices and lessons learned identified through this event to develop a POD Plan, which is a best practice plan that highlights resource and logistical considerations for how to distribute life-sustaining commodities following a significant emergency or disaster. At a minimum, the POD Plan should include: 1) operational staffing and support services needed to activate, manage, and transition POD sites before, during, and after emergencies; 2) POD site locations and logistical and resource requirements to support resource distribution at those locations; and 3) command structure and organizational alignment with the EOC.

Areas for Improvement

Observation 6.03

Volunteer Engagement and Donation Management: Non-profit organizations could have assisted with response efforts earlier but were not engaged. Throughout the incident, volunteer groups and community organizations reached out to the City to offer assistance and donations. These groups reached out either via 311 or through pre-existing points of contact within specific departments. The City does not have a plan to effectively engage these groups and does not currently have processes in place to manage donations during a disaster. Additionally, due to regulatory barriers in the City Code (i.e. in order for the CAO were to manage donations directly,

a formal request to City Council would be necessary), the City does not usually manage donations directly. As a result, the City could not coordinate any donations throughout this effort. Two entities (i.e., DSS and VDH) were coordinating volunteers for water distribution. However, these entities had no pre-established protocols or guidance to support this effort. Staff assigned to this task were not previously trained or tasked with completing such efforts. There is a need for clearer volunteer coordination and SOP establishment to avoid liability and risk management issues.

RECOMMENDATION 6.03

Use best practices and lessons identified through this incident to develop a Volunteer and Donations Management Plan to coordinate external support efficiently. Add a dedicated full-time Voluntary Agency Liaison (VAL) position to coordinate with non-profit organizations during steady-state operations and emergencies.

Observation 6.04

Distribution Site Command Structure: PODs lacked clear leadership. Staff and volunteers located at these sites were not made aware of which individual or team was managing each site and providing reports back to the EOC. As such, coordination within PODs and reporting back to the EOC was done in an ad hoc manner.

RECOMMENDATION 6.04

Establish roles and responsibilities in the POD Plan. At the onset of POD activation, assign designated points of contact to PODs to ensure better coordination.

Observation 6.05

Disorganized Resource Request Channels: Resource requests were uncoordinated, leading to duplicate requests and inconsistent deliveries. Staff repeatedly noted they felt unprepared and ill-equipped to carry out resource requests for water distribution efforts. Various City departments worked to acquire water from multiple sources; however, they did not coordinate across teams through a singular channel (e.g., WebEOC) to ensure consistency and efficiency. As a result, there were times when water distribution efforts faced execution issues, such as: trucks arriving at locations without either the staff or the equipment to unload the water which caused delays, water provided in containers that were not adequate to meet the needs of residents (e.g., zip tied plastic bags), or water distributed in inconsistent amounts (e.g., individual bottles versus cases of bottles).

RECOMMENDATION 6.05 (A)

Build an EOC support team with knowledgeable staff who can utilize and train on WebEOC for resource requests.

RECOMMENDATION 6.05 (B)

Reflecting the integration of outside stakeholders, identify resource tracking processes, resource management procedures, and use of IT technologies (including WebEOC) in the Resource Management Plan. Define a designated logistics team or individual within the EOC in the Resource Management Plan to manage and track all resource requests, ensuring alignment between supply sources and operational needs (e.g. Resource Unit Leader within the Planning Section). An IMT can be used to carry this out until the City develops a logistics team or can help to augment the City's logistics team.

Observation 6.06

Accurately Identifying and Requesting Resources: The City had challenges forecasting the quantity of resources needed and was unable to establish accurate burn rates for the amount of water needed at each POD. Additionally, the City made requests to the Commonwealth for resources and staff that the City already had available (e.g., a forklift driver). Due to duplication of efforts and confusion across City teams requesting resources, there were inconsistencies in the types of resources requested, and too many resources and staff were needed to transport, process, and distribute resources being requested. Additionally, this incident was occurring at the same time as the January 2025 Southern California wildfires, so water resources around the country were constrained.

The City received water for distribution in various forms (i.e., bottles, tankers, plastic bags sealed with zip ties). As a result, staff at distribution sites did not know what type of packaging they would be distributing until the moment they unloaded and opened boxes. This inconsistency highlights the need for more rigorous resource request protocols to ensure the City receives commodities in the way best suited to meet their needs and the needs of their community. Additionally, staff at distribution sites were unable to consistently explain to residents the recommended use of the resources they were providing (i.e., water for flushing toilets, showering, as opposed to drinking water). As a result, some residents were unsure whether the water they were receiving was safe for drinking or intended for other uses, such as showering. The lack of clear messaging to residents around the distribution of available resources highlights gaps in public communication.

RECOMMENDATION 6.06 (A)

Develop a process for tracking and calculating burn rates to effectively forecast the amount of essential supplies needed based on anticipated or actual impacts. This should include real-time data collection within the EOC and at PODs, as well as pre-established guidelines for estimating resource needs based on population and demand trends. Ensure all resource requests are being appropriately triaged through the EOC Logistics Section to avoid duplication of efforts and to better enable skilled resource management staff to forecast, allocate, and follow-up on resource needs. Integrate these practices and principles into a Resource Management Plan and POD Plan.

RECOMMENDATION 6.06 (B)

Provide training in operational capabilities and resource management. This training can include using EOC communication methods and information-sharing platforms (e.g., WebEOC) to emulate real-world roles and responsibilities. Train staff on resource forecasting and procurement processes to enhance efficiency and reduce unnecessary delays. Include training considerations for procuring or requesting essential commodities.

RECOMMENDATION 6.06 (C)

Utilize and train on the C-SALTT method[4] during resource ordering and management to place a sufficient request for resources. Codify this guidance in the Resource Management Plan.

Observation 6.07

Utilization of Key Resources: Due to the Governor's Declaration of Emergency on January 3rd, the Virginia Emergency Operations Center (VEOC) and Virginia Emergency Support Team (VEST), which included authorization for VNG deployment, were activated to support needs related to the impending winter storm. Once the water distribution challenges in Richmond became apparent, VNG began identifying suitable resources for support.

The City of Richmond pursued multiple avenues to secure water for the community, including through submission of resource requests for water to the State, as the needs of the community quickly overwhelmed Richmond's existing capabilities. Water resources offered through the VEST and other private and community-based organizations were initially used to respond to the demand for water.

On January 9th, a delay in a scheduled vendor water delivery raised concerns that distribution sites might run out of water. While it's a standard State practice to evaluate and utilize other state resources before engaging the National Guard, given the various factors related to the use of military assets for civilian purposes, the VNG support was offered as a contingency to ensure continued water availability. The City of Richmond initially declined this assistance due to a lack of clear decision-making framework for requesting external resources; however, after further discussions between City and VDEM leadership, the City agreed to accept VNG assistance. Beginning the morning of January 10th, VNG personnel actively supported water distribution at public sites and conducted direct deliveries to designated addresses for several days.

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[4] Per VDEM guidance, the C-SALTT method is "Capability, Size, Amount, Type, and Time; This is the guideline for the information needed to place a sufficient request for resources."

RECOMMENDATION 6.07 (A)

Develop a clear decision-making framework for requesting external resources, including Commonwealth and Federal resources, that accounts for utilization of existing community resources and contracts with vendors, time needed to procure and deliver the resources, cost, coordination and management structures, accompanying needs (e.g. staging sites), and community context. This framework should reflect the complexity of various types of "all hazard" incidents and include predefined triggers and timelines for requesting assistance to prevent delays and optimize resource deployment. This decision-making framework should be incorporated as a part of the overall Resource Management Plan.

RECOMMENDATION 6.07 (B)

Consider the inclusion of a community-oriented representative, such as a VAL, in the EOC Logistics Section to ensure community context is being considered throughout the resource management and ordering process. This representative will consider the needs of the community and offer solutions for reaching various populations, including those with access and functional needs.

Economic Recovery

FEMA Core Capability	FEMA Core Capability Definition
Economic Recovery	Return economic and business activities (including food and agriculture) to a healthy state and develop new business and employment opportunities that result in an economically viable community.

This capability is essential to sustaining operations during and after a disaster while minimizing financial strain. During the Winter Weather Storm, the City efficiently set up emergency coding for tracking response costs but lacked a financial strategy, forcing departments to develop processes impromptu. Without activating its downturn reserve fund, which would require the City to frame out a plan to replenish the fund within three years of using it, departments used their own budgets, risking long-term impacts. Decentralized purchasing and inconsistent financial tracking further complicated recovery. To improve, the City should establish clear financial strategies, leverage emergency funds, and centralize procurement and tracking for more efficient recovery efforts.

Strengths

Observation 7.01

Financial Coding: As soon as the declaration for a local emergency was made by the Mayor, the City set up a Winter Weather Storm code with the Finance Department and shared it with the departments. This was provided electronically and provided staff with the necessary tools to track response-related hours adequately.

RECOMMENDATION 7.01

Continue to set up financial tracking codes and share them with all departments.

Areas for Improvement

Observation 7.02

Financial Strategies: The City does not have a financial strategy, tools, or templates in place for emergency procurement and cost recovery following disasters or incidents. As a result, the City was forced to develop processes in real-time during the incident as they were engaging in response efforts, leading the team to carry out efforts in a way that could generate potential challenges during financial cost recovery and reimbursement request process.

RECOMMENDATION 7.02

Identify the stakeholders responsible for cost recovery within each department, develop strategies, tools, and templates for future use in all emergency incidents, and train these individuals on how to coordinate and share information during future incidents.

Observation 7.03

Emergency Funds: The City has a downturn reserve fund, but it is not activated during emergencies. The City has a few special-purpose reserves that may be helpful to leverage, but there are no clear incentives to utilize these reserves, as they require the City to develop a plan to reimburse the funds within three years post-event. As a result, there is no easily accessible and incentivized excess funding for the City to rely on during an emergency. During the incident, City departments had to carry out operations using department-allocated funds during response and recovery. This led to departments using up their own year-long steady-state allocations, which could lead to impacts on steady-state programs. Additionally, the City has no way to accept donated funds in an emergency.

RECOMMENDATION 7.03

Analyze how the City uses funding and identify strategies for mitigating fiscal impacts to departments for City-wide incidents. Develop an MOU and plan with community or regional partners (e.g., community foundations) to accept donations, mirroring the regional group agreement for disaster relief to ensure that donated funds make it into the hands of residents impacted.

Observation 7.04

Centralized Point for Purchasing: The City depends on a decentralized procurement process with individuals across departments handling purchasing policies directly for their department. Multiple departments were making purchases from their own departments' budgets and not using WebEOC, causing a lack of real-time cataloging of purchases made with associated costs.

RECOMMENDATION 7.04

Develop a policy for handling EOC or incident-specific purchases for future Citywide activations. Identify a centralized point or position for departmental purchasing agents to coordinate with during an incident and leverage WebEOC to track procurement.

Consider centralization of procurement and purchasing of goods and services to an EOC-based Finance/Admin. section to streamline purchasing and to maintain compliance with Federal and Commonwealth procurement policies and requirements that differ from the City's standard procurement and purchasing procedures. To minimize disruption to emergency operations, the centralized Finance/Admin. section should consider maintaining up to five individuals for active shifts to complete all compliance requirements in real time.

Long-Term Vulnerability Reduction

FEMA Core Capability	FEMA Core Capability Definition
Long-Term Vulnerability Reduction	Build and sustain resilient systems, communities, and critical infrastructure and key resources lifelines so as to reduce their vulnerability to natural, technological, and human-caused threats and hazards by lessening the likelihood, severity, and duration of the adverse consequences.

This capability is essential for ensuring communities can withstand and recover from future incidents without facing repeated risks. This incident highlighted the interdependencies of the water infrastructure within the City and with nearby regions. The region should proactively posture itself by developing a common understanding of critical infrastructure interdependencies and establishing emergency operation plans, policies, and procedures accordingly.

Strengths

Observation 8.01

Cascading Regional Impacts: This incident underscored the interdependence between regional utility partners, demonstrating how disruptions in one system can trigger cascading impacts across multiple jurisdictions. Upon understanding the extent of the disruption at the WTP, the City attended a regional call to share this information with regional partners who were potentially impacted. Chesterfield's decision to cut off water minimized its impacts, and Henrico effectively engaged with its network providers during the incident to respond directly to the potential impacts to their community. The ability of regions to isolate their resources helped prevent widespread disruptions, allowing them to mitigate major emergencies within their own jurisdictions.

RECOMMENDATION 8.01

Establish a regional utility coordination framework to enhance information-sharing, resource allocation, and MAAs. Conduct joint training and exercises to improve preparedness for cascading failures and ensure that isolation strategies are balanced with regional support capabilities. Leverage Federal and Commonwealth resources, such as the Environmental Protection Agency (EPA) Water Checklist.

Areas for Improvement

Observation 8.02

Cascading Health and Sanitation Impacts: During the onset of the incident, a member of the EOC informally notified VCU Health and VDH of the ongoing incident and potential for a BWA. However, healthcare partners like VCU Health were not a part of the formal EOC distribution lists. Impacts of water disruptions to healthcare facilities and other public spaces, such as shelters and

facilities housing large groups of individuals, were not directly managed or discussed by the EOC. Unaddressed water pressure issues could lead to severe repercussions for local hospitals and other facilities regarding sanitation and disease.

RECOMMENDATION 8.02 (A)

Continue to identify key hazards through hazard assessments (e.g., Threat and Hazard Identification and Risk Assessment [THIRA]) and integrate hazard-specific annexes developed by relevant stakeholders into an updated EOP for varying utility disruptions, highlighting safety and public health among other potential cascading impacts. Train staff on these annexes.

RECOMMENDATION 8.02 (B)

Review existing City distribution lists and ensure all critical infrastructure, public safety, and health partners are included on a distribution list for situational awareness. Involve City infrastructure, public safety, and health partners in planning, training, and exercise opportunities in the future.

Improvement Plan

The table below lists all recommendations identified in this report and assigns responsible parties, prioritization, and a suggested timeline for each, denoted by calendar year (CY).

Table 3: Improvement Plan

#	Recommendation	Responsible Agencies (Primary)	Responsible Agencies (Secondary)	Priority	Target Completion Date by Calendar Year (CY)
Planning					
1.01 (A)	Develop a multi-year City-wide Integrated Preparedness Plan (IPP) according to FEMA guidance, outlining City-wide planning, exercise, and training goals and priorities and a corresponding schedule in coordination with City departments and agencies participate in the City's overall emergency preparedness and response efforts (e.g., public safety, operational departments, Finance, etc.). Develop and include baseline training requirements in the IPP by EOC position classification, including specific training	DECPR-OEM	All departments	High	Q4 2025

	requirements for Councilmembers and City leadership.				
1.01 (B)	Provide cross-training to all staff to enhance flexibility and preparedness for future incidents, which will likely require additional staff capacity to implement. Enhance training and exercise opportunities to cover diverse scenarios and ensure all City staff are adequately prepared.	DECPR-OEM	Human Resources	High	Yearly
1.02	Continue to refine and expand the vulnerable populations spreadsheet, ensuring it is regularly updated and utilized by all relevant departments. Maintain best practice of prioritizing distribution to specialty populations and ensuring equity and sustainability considerations are integrated throughout preparedness, response, and recovery initiatives.	DNCS	Office of Sustainability (OSS)	Medium	Quarterly
1.03	Update or create City COOPs that departments currently to integrate impacts to City infrastructure and utility outage events (e.g., major water disruption).	DECPR-OEM	City Agencies	High	Q4 2026

1.04 (A)	Formalize wellness programs drawing from efforts conducted during this incident to ensure consistent support during emergencies, including designated breaks and meal provisions.	Human Resources	DECPR-OEM	High	Q2 2025
1.04 (B)	Create Food Unit plan (managed by a designated Logistics team if activated) that takes into account both staff at the EOC as well as other sites as appropriate (e.g., at PODs). Integrate into EOC activations and exercises as appropriate.	DECPR	Department of Procurement Services (DPS)	Medium	Q4 2026
1.05 (A)	Update roles and responsibilities in EOP, validate with partners, and regularly socialize and train on emergency operations procedures and plans with those partners, practicing activation in different types of scenarios (e.g., power outage). Emergency operations procedures and plans should be accessible to all staff during an emergency and each team should be aware of their unique roles and responsibilities within the	Each Portfolio	DECPR-OEM	High	Q4 2026

	determined and approved response organizational structure. Incorporate Just-In-Time training opportunities for pre-incident awareness and readiness.				
1.05 (B)	Add emergency operations procedures and plans in PowerDMS and require each City employee involved in emergency response to sign off that they have read this document.	DECPR-OEM	Human Resources	High	Q4 2025
1.06	Implement mandatory bi-yearly training sessions for all EOC staff on WebEOC and ensure users regularly access the platform using their login credentials. DECPR should routinely review the WebEOC user list for updates and continuity. Identify opportunities to use WebEOC during blue skies (e.g., inter-agency meetings or special events) to familiarize City staff with the platform. Develop training requirements by EOC position classification (e.g. EOC Leadership, EOC Staff, first responder, etc.) and include in the IPP; add	Each department (responsible for their own training and materials)	DECPR-OEM	High	Yearly

	WebEOC training as a requirement for specific position classifications.				
1.07	Inventory and utilize tools and resources in place for an effective incident response (e.g., SOPs, WebEOC). Integrate use of tools and resources into trainings.	Each individual City department	DECPR-OEM	High	Q4 2025
1.08	For the EOC, formalize staff operational periods (12 hours or less) into planning to support optimal staff performance during a multi-day incident.	City Agencies	DECPR-OEM	High	Q2 2025
1.09 (A)	Develop a schedule for creating and updating plans; integrate this schedule into the IPP.	DECPR-OEM		High	Q3 2025
1.09 (B)	Develop the following emergency operations plans: POD Plan, Resource Management Plan, Crisis Communications Plan, Volunteer and Donations Management Plan, MCI Plan, FRC Plan, FAC Plan, Active Threat/Shooter Plan. Include key stakeholders in development of each plan.	DECPR-OEM		High	Q4 2026

Operational Coordination					
2.01	Continue working with the EOC facility and DECPR-IT to ensure readiness for EOC activation in the future.	DECPR-OEM	DECPR-IT, EOC facility Staff	Medium	Quarterly
2.02	Acknowledge the hard work of City staff and volunteers throughout and after incident responses to encourage and maintain a culture of preparedness and readiness to respond.	City Leadership		Low	Q2 2025
2.03	Clearly define the roles and responsibilities of City leadership in the EOP and train City leaders and their teams on emergency management protocols.	DECPR-OEM		High	Yearly
2.04	Continue to call upon resources available during an emergency event (such as MOUs, Mutual Aid Agreements [MAAs], and Incident Action Plans [IAPs]), making sure to clarify the scope and need for each resource. Maintain a list of these resources (MOUs, MAAs, etc.) for City staff to leverage in one place. Update on a bi-yearly basis.	DECPR-OEM		Medium	Q3 2025

2.05	Document stakeholder contact information and coordination processes to ensure continued regional partnerships in future activations.	DECPR-OEM		Medium	Q4 2025
2.06	Identify a dedicated space for an EOC so the City can immediately respond from the EOC. The space needs to be cleared of any on-going events and equipment and furniture should be set up according to the guidance in the EOP.	City Leadership		Medium	Q4 2026
2.07 (A)	Clearly delineate the command structure and ensure all staff understand the chain of command prior to future activations. Establish mandatory and regular training to support EOC leadership in executing their roles and ensuring preparedness for future activations.	DECPR-OEM		High	Yearly
2.07 (B)	Provide the Emergency Management Coordinator with the necessary capacity, by increasing DECPR-OEM staffing to support daily activities.	DECPR		High	Q3 2026

2.08	Update and train staff on EOC shift protocols, which should outline standardized timetables and shift expectations across teams (e.g., sign in and sign out processes, on site versus on call expectations). Protocols should ensure at least one staff member across key teams and a representative of the Policy Group is present in the EOC and available to the EOC night manager, commensurate with the level of EOC activation. The EOC Activation phase should clearly define which senior departmental leadership representatives are expected to be active in the EOC. Unless or until this is designated, City staff should provide in-person presence until otherwise stood down by the EOC Manager.	DECPR	DECPR-OEM	Medium	Q3 2025
2.09	Maintain up-to-date contact lists and require virtual and paper copies of sign-in sheets for all EOC activations as well as required virtual copies of sign-in sheets for all virtual activations via	DECPR-OEM		Medium	Q3 2025

	WebEOC. A staff member should be assigned to ensure the accuracy and timeliness of sign-in sheets and save the sign-in sheets to a central location that can be accessed post-incident. Additionally, the sign-in table should be located at the entrance of the EOC for in-person activations.				
2.10 (A)	Provide training in operational capabilities and resource mobilization. This training can include using EOC communication methods and information-sharing platforms (e.g., WebEOC) to emulate real-world roles and responsibilities.	DECPR-OEM		High	Yearly
2.10 (B)	Maintain consistent information sharing through centralized communication starting at the leadership level to maintain a clear structure of responsibilities and avoid duplication of effort.	Policy Group, DECPR	DECPR-OEM	High	Q2 2025
2.11	Establish the City-specific Type IV IMT and offer IMT trainings to City staff that may be	DECPR-OEM	City departments	High	Q3 2026

	involved in this effort. A dedicated program manager would help ensure the team develops. Until a City-specific IMT is established, coordinate with the CVAIMT and City leadership to highlight specific areas where the CVAIMT can be utilized to support future response operations.				
2.12	Review the EOP to promote alignment with ICS principles and integrate ICS principles in the IPP. Offer ICS trainings to City staff involved in emergency response. Complete annual exercises with City staff and partners utilizing ICS principles.	DECPR-OEM		High	Q4 2026
Operational Communications					
3.01	Mirror the communication practices illustrated at a City-wide scale, informing all relevant stakeholders of EOC activation as soon as possible.	DECPR		High	Q2 2025
3.02	Identify what platforms City agencies are using for effective communication (e.g.,	DECPR-IT, OSC, DECPR		Low	Q3 2025

	Microsoft Teams Chat) and implement use at a City level for a holistic approach to communication during an emergency.				
3.03	Maintain strong communication practices within the Policy Group room and extend them outside of the room to the entire EOC as well.	Policy Group, DECPR	DECPR-OEM	High	Q4 2025
3.04	Use the City's new notification tool to disseminate clear and timely information to the appropriate City stakeholders in future EOC activations. Establish SOPs that ensure periodic testing of the system, review and update City contact information, address the timing/sequencing of releasing emergency notifications to City staff, and establish redundant communications mechanisms (e.g. distro lists).	DECPR, OSC		High	Q2 2025
3.05	Provide physical and electronic copies of the current EOC guidebooks for City employees outlining reporting locations,	DECPR	DECPR-OEM	High	Q4 2025

	responsibilities, and points of contact and reference the guidebooks during EOC Briefings to ensure staff are aware of the resource. Ensure the EOC layout developed by DECPR-OEM is implemented when the EOC is initially set up. Update EOC guidebooks based on best practices and lessons learned during this event.				
3.06 (A)	Identify key stakeholders prior to incidents and maintain updated contact information for effective communication. Expand communications beyond EOC staff to include all contributors in response efforts (e.g., staff and partners at PODs and the 311 center). Consider establishing incident-specific distribution chains as needed to ensure appropriate information flow.	DECPR	DECPR-OEM	High	Q4 2025
3.06 (B)	Implement an internal priority notification system to ensure key stakeholders receive emergency updates before public releases, using designated representatives and a	OSC, DECPR-OEM		High	Q4 2025

	secure communication channel.				
3.07	Foster effective, transparent communication between field operations and the EOC by ensuring City department emergency liaisons are trained to provide accurate and consistently up-to-date technical expertise. If the department emergency liaison lacks the necessary technical expertise to ensure proper and timely decision-making, quickly identify the appropriate technical experts early in the incident and ensure they are included in the incident response organizational structure.	City Agencies	DECPR-OEM	Medium	Q2 2025
3.08	Establish a standardized communication process for Councilmember updates, designating a liaison, ensuring the City Council Chief of Staff is included in all communications, and using a structured briefing schedule or centralized messaging platform for consistency.	Policy Group	DECPR	High	Q2 2025

3.09 (A)	Standardize communication between leadership and EOC staff through a centralized communication platform and clear documentation of key decisions and action items.	DECPR-OEM	City Leadership	High	Q4 2025
3.09 (B)	Coordinate briefings for City staff and relevant stakeholders, scheduled prior to public briefings and press releases. Establish a structured meeting schedule that aligns with operational needs and staff availability. Hold Policy Group meetings before EOC briefings to ensure decisions are made in advance and shared efficiently, whenever possible. All necessary information from the Policy Group meeting decisions should be shared with EOC leadership. Consider integrating ICS concepts of EOC Action Planning to establish a cadence and structure, while ensuring that life-saving information is quickly and appropriately relayed.	Policy Group	DECPR-OEM, OSC	Medium	Q4 2025

3.10	Establish formal mechanisms for staff to pass information on to decision-makers (e.g., One-pagers for Executive Leadership for more comprehensive reporting, utilizing digital platforms, and employing written over verbal communication when the Policy Room is closed) to promote more comprehensive and accurate information flow from EOC staff to the Policy Group.	DECPR-OEM		High	Q4 2025
Situational Assessment					
4.01	Maintain the momentum of regular situational updates to enhance awareness among all stakeholders involved in emergency response, throughout the entire duration of the response (i.e., starting at EOC activation and ending at demobilization).	DECPR-OEM		Medium	Q2 2025
4.02	Throughout the incident period, maintain frequent and structured status updates to the EOC, ensuring that information is clearly documented and readily available for operational planning.	DECPR-OEM		High	Q2 2025

4.03	Integrate DIT/GIS staff into the EOC, establish pre-existing disaster dashboards, and utilize DIT/GIS staff to update data collection and display throughout the incident.	DECPR-IT	DECPR-OEM	Medium	Q4 2025
4.04 (A)	Standardize the SitRep format based on the updated template established during this incident and provide training to ensure all staff understand how to complete them properly and consistently.	DECPR-OEM	DECPR-IT	Medium	Q2 2025
4.04 (B)	Streamline information gathering for SitReps, potentially using the Activity Log within WebEOC to improve efficiency and clarity.	DECPR-OEM	DECPR-IT	High	Q2 2025
4.04 (C)	Define and communicate a cadence for reporting to facilitate a more organized emergency response process.	DECPR-OEM		Medium	Q2 2025
4.04 (D)	Establish standardized documentation practices and ensure all staff are trained accordingly. Include protocols and mechanisms (e.g., WebEOC) that consider the type and sensitivity of	DECPR-OEM		High	Q4 2025

	information being shared. During the initial response phase of each incident, develop any additional incident-specific guidance that may be needed to complement these standard documentation practices and provide staff with the necessary information, guidance, and tools to follow all active documentation practices.				
4.05	Develop a communication strategy for each disaster to ensure that the complexity and impacts of the emergency and response efforts are clearly identified and relayed to decision-makers, stakeholders, and the public in real-time.	Policy Group, DECPR	City Agencies	Medium	Q4 2025
Public Information & Warning					
5.01	Use best practices and lessons learned identified through this event to develop a Crisis Communications Plan. In the plan, establish a formalized structure for mayoral updates to maintain clear and	OSC	DECPR-OEM, Office of Immigrant and Refugee Engagement (OIRE)	High	Q4 2026

	consistent communication and integrate accessible messaging requirements for effective communication to the public during emergencies.				
5.02	Maintain the practice of verifying information with responsible City response teams before release.	OSC	DECPR-OEM, OIRE	High	Q4 2025
5.03	Follow policy DECPR 2-45: Emergency Notification System, to include roles/responsibilities, approval authorities, and sequencing, for the use of “RichmondReady” public notifications to ensure timely and coordinated messaging. Train communications partners on the use of this tool in coordination with EOC Command.	DECPR	OSC	High	Q4 2025
5.04 (A)	Invest in upgrading the City’s website to serve as a reliable, centralized platform for emergency updates and resource coordination.	City Leadership	OSC, DECPR-IT	Low	Q4 2026
5.04 (B)	Develop a clear and consistent messaging strategy for relaying	OSC	DECPR-OEM, OIRE	Medium	Q4 2026

	information to the public through virtual and in-person formats (e.g., using PODs as information-sites). Include guidance for sharing public safety information, including templates for health advisories. Integrate procedures and tools in the Crisis Communications Plan.				
5.05	In the Crisis Communications Plan, establish a standardized process for disseminating information about all available public resources, including those coordinated with external partners. This should include integrating resource updates into official City communication channels such as press briefings, social media, the City website, and emergency notification systems to ensure comprehensive public awareness and maximize resource utilization. The Crisis Communications Plan should also address pre-planning for the integration of community	OSC	DECPR-OEM, OIRE	Medium	Q4 2026

	leaders and partner organizations to ensure vulnerable populations are being notified in a timely manner.				
5.06	Ensure the call center is staffed according to the scale of the response and that 311 operators receive direct, vetted updates from the EOC to improve the accuracy of information provided to the public.	Citizen Service and Response (CSR)	OSC, DECPR	High	Q2 2025
5.07	Establish JIC activation protocol in the Crisis Communication Plan in alignment with the National Incident Management System (NIMS) protocols, which at a minimum clearly assigns public information roles and responsibilities, contains pre-scripted messages for different types of incidents, and discusses cadence for internal and public messaging. The protocol should establish the JIC early in an incident to streamline coordination and prevent conflicting narratives, establish a chain of command, and identify which stakeholders will	OSC	DECPR-OEM, OIRE	Medium	Q4 2026

	have access to information and when. Provide training to Public Information Officers (PIOs) and EOC staff to ensure coordinated public messaging. Account for different scales of activation within protocol (i.e., City declaration, Commonwealth declaration, Federal declaration) to ensure appropriate information flow across all public information stakeholders.				
5.08	Develop a new Media Policy to support incident site and EOC procedures. The plan should include requirements for always escorting the media through the EOC and informing staff of their presence prior to them coming onsite. Provide Operational Security (OPSEC) training to all EOC staff and City leadership. Alternatively, create stock footage of the EOC to facilitate media coverage while limiting access during critical response periods.	OSC	DECPR-OEM	Medium	Q4 2025
Logistics and Supply Chain Management					

6.01	City departments that do not use P-Cards should consider using P-Cards for emergency procurement.	City Agencies	DECPR, DPS	Low	Q3 2025
6.02 (A)	Use best practices and lessons learned identified through this event to develop a Resource Management Plan. Identify roles and responsibilities for commodity distribution and integrate them into the plan.	DECPR		Medium	Q4 2026
6.02 (B)	Use best practices and lessons learned identified through this event to develop a POD Plan, which is a best practice plan that highlights resource and logistical considerations for how to distribute life-sustaining commodities following a significant emergency or disaster. At a minimum, the POD Plan should include: 1) operational staffing and support services needed to activate, manage, and transition POD sites before, during, and after emergencies; 2) POD site locations and logistical and resource requirements to support	DECPR-OEM	Human Services Portfolio. DNCS	Medium	Q4 2026

	resource distribution at those locations; and 3) command structure and organizational alignment with the EOC.				
6.03	Use best practices and lessons identified through this incident to develop a Volunteer and Donations Management Plan to coordinate external support efficiently. Add a dedicated full-time Voluntary Agency Liaison (VAL) position to coordinate with non-profit organizations during steady-state operations and emergencies.	DECPR-OEM	DNCS	High	Q4 2026
6.04	Establish roles and responsibilities in the POD Plan. At the onset of POD activation, assign designated points of contact to PODs to ensure better coordination.	DECPR-OEM	Human Services Portfolio. DNCS	Medium	Q4 2026
6.05 (A)	Build an EOC support team with knowledgeable staff who can utilize and train on WebEOC for resource requests.	DECPR-OEM	DECPR-IT, City Staff	Medium	Q4 2025

6.05 (B)	Reflecting the integration of outside stakeholders, identify resource tracking processes, resource management procedures, and use of IT technologies (including WebEOC) in the Resource Management Plan. Define a designated logistics team or individual within the EOC in the Resource Management Plan to manage and track all resource requests, ensuring alignment between supply sources and operational needs (e.g. Resource Unit Leader within the Planning Section). An IMT can be used to carry this out until the City develops a logistics team or can help to augment the City's logistics team.	Type IV IMT[5]	DECPR-IT	High	Contin-gent upon establish-ment of the IMT
6.06 (A)	Develop a process for tracking and calculating burn rates to effectively forecast the amount of essential supplies	DECPR	DNCS, Finance Admin, Budget, DPS	High	Q4 2026

[5] The creation of the Type IV IMT is listed in Recommendation 2.11

	needed based on anticipated or actual impacts. This should include real-time data collection within the EOC and at PODs, as well as pre-established guidelines for estimating resource needs based on population and demand trends. Ensure all resource requests are being appropriately triaged through the EOC Logistics Section to avoid duplication of efforts and to better enable skilled resource management staff to forecast, allocate, and follow-up on resource needs. Integrate these practices and principles into a Resource Management Plan and POD Plan.				
6.06 (B)	Provide training in operational capabilities and resource management. This training can include using EOC communication methods and information-sharing platforms (e.g., WebEOC) to emulate real-world roles and responsibilities. Train staff on resource forecasting and	Procurement	DECPR-OEM	Medium	Yearly

	procurement processes to enhance efficiency and reduce unnecessary delays. Include training considerations for procuring or requesting essential commodities.				
6.06 (C)	Utilize and train on the C-SALTT method during resource ordering and management to place a sufficient request for resources. Codify this guidance in the Resource Management Plan.	DECPR	OSC, OIRE	Low	Q4 2026
6.07 (A)	Develop a clear decision-making framework for requesting external resources, including Commonwealth and Federal resources, that accounts for utilization of existing community resources and contracts with vendors, time needed to procure and deliver the resources, cost, coordination and management structures, accompanying needs (e.g. staging sites), and community context. This	Type IV IMT[6]	DECPR-IT	High	Contin-gent upon establish-ment of the IMT

[6] The creation of the Type IV IMT is listed in Recommendation 2.11

	framework should reflect the complexity of various types of “all hazard” incidents and include predefined triggers and timelines for requesting assistance to prevent delays and optimize resource deployment. This decision-making framework should be incorporated as a part of the overall Resource Management Plan.				
6.07 (B)	Consider the inclusion of a community-oriented representative, such as a VAL, in the EOC Logistics Section to ensure community context is being considered throughout the resource management and ordering process. This representative will consider the needs of the community and offer solutions for reaching various populations, including those with access and functional needs.	DECPR-OEM	DECPR-IT	Medium	Contingent upon hiring of VAL
Economic Recovery					
7.01	Continue to set up financial tracking codes	Finance	DECPR	Medium	Ongoing

	and share them with all departments.				
7.02	Identify the stakeholders responsible for cost recovery within each department, develop strategies, tools, and templates for future use in all emergency incidents, and train these individuals on how to coordinate and share information during future incidents.	DECPR, Finance	City departments	High	Q4 2025
7.03	Analyze how the City uses funding and identify strategies for mitigating fiscal impacts to departments for City-wide incidents. Develop an MOU and plan with community or regional partners (e.g., community foundations) to accept donations, mirroring the regional group agreement for disaster relief to ensure that donated funds make it into the hands of residents impacted.	DECPR, Finance	City Leadership	Medium	Q4 2026
7.04	Develop a policy for handling EOC or incident-specific purchases for future Citywide activations. Identify a centralized	DECPR, Procurement	City Leadership, Budget	High	Q4 2025

	point or position for departmental purchasing agents to coordinate with during an incident and leverage WebEOC to track procurement. Consider centralization of procurement and purchasing of goods and services to an EOC-based Finance/Admin. section to streamline purchasing and to maintain compliance with Federal and Commonwealth procurement policies and requirements that differ from the City's standard procurement and purchasing procedures. To minimize disruption to emergency operations, the centralized Finance/Admin. section should consider maintaining up to five individuals for active shifts to complete all compliance requirements in real time.				
Long-Term Vulnerability					
8.01	Establish a regional utility coordination framework to enhance information-sharing, resource allocation, and MAAs. Conduct joint training	DECPR		Medium	Q4 2025

	and exercises to improve preparedness for cascading failures and ensure that isolation strategies are balanced with regional support capabilities. Leverage Federal and Commonwealth resources, such as the Environmental Protection Agency (EPA) Water Checklist.				
8.02 (A)	Continue to identify key hazards through hazard assessments (e.g., Threat and Hazard Identification and Risk Assessment [THIRA]) and integrate hazard-specific annexes developed by relevant stakeholders into an updated EOP for varying utility disruptions, highlighting safety and public health among other potential cascading impacts. Train staff on these annexes.	DECPR-OEM	DPU, DIT, General Services Department	Medium	Q4 2026
8.02 (B)	Review existing City distribution lists and ensure all critical infrastructure, public safety, and health partners are included on a distribution list for situational awareness.	DECPR-OEM	City departments, DIT	High	Yearly

	Involve City infrastructure, public safety, and health partners in planning, training, and exercising opportunities in the future.				

Appendix A: Stakeholders

Various stakeholders were engaged throughout the Incident Response Assessment process. **Table 4** below identifies the 28 stakeholder groups that took part in stakeholder interviews. **Table 5** identifies the partners engaged who were unable to complete stakeholder interviews.

Table 4: Stakeholders Engaged and Interviewed

City of Richmond Departments and Agencies
Chief Administrative Office
City Council
Department of Budget and Strategic Planning
Department of Emergency Communication, Preparedness and Response
Department of Information Technology
Department of Justice Services
Department of Parks, Recreation and Community Facilities
Department of Procurement Services
Department of Public Utilities
Department of Public Works
Department of Social Services
Finance Department
Human Resources
Mayor's Office
Office of Minority Business Development
Office of Strategic Communications
Office of Sustainability
Office of Emergency Management
Richmond Fire Department
Richmond Police Department
Richmond Public Library
Other Governmental Entities
Central Virginia Incident Management Team
Goochland County

Virginia Department of Emergency Management
Virginia Department of Health
Virginia Museum of Fine Arts
Non-Governmental Agencies, Volunteer Organizations, and Other
Richmond Ambulance Authority
Virginia Commonwealth University and VCU Health

Table 5: Stakeholders Engaged but Not Interviewed

City of Richmond Departments and Agencies
Office of Community Wealth Building
Office of Immigrant and Refugee Engagement
Sheriff's Office
Other Governmental Entities
Chesterfield County
Hanover County
Henrico County
Non-Governmental Agencies, Volunteer Organizations, and Other
Dominion Energy
Red Cross
University of Richmond

Appendix B: Acronym List

The following table provides a list of the acronyms used throughout the Incident Response Assessment and their associated definitions.

Table 6: Acronyms Used

Acronym	Definition
BWA	Boil Water Advisory
CAO	Chief Administrative Officer
COOP	Continuity of Operations Plan
CSR	Citizen Service and Response
CVAIMT	Central Virginia Incident Management Team
CY	Calendar Year
DCAO	Deputy Chief Administrative Officer
DECPR	Department of Emergency Communications, Preparedness and Response
DECPR-IT	Department of Emergency Communications, Preparedness and Response – Information Technology
DECPR-OEM	Department of Emergency Communications, Preparedness and Response – Office of Emergency Management
DIT	Department of Information Technology
DNCS	Department of Neighborhood and Community Services
DPS	Department of Procurement Services
DPU	Department of Public Utilities
DPW	Department of Public Works
DSS	Department of Social Services
EDI	East End District Initiative
EEI	Essential Element of Information
EML	Emergency Management Liaison
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
ESF	Emergency Support Function
FAC	Family Assistance Center

Acronym	Definition
FEMA	Federal Emergency Management Agency
FOIA	Freedom of Information Act
FRC	Family Reunification Center
GIS	Geographic Information System
HIRA	Hazard Identification and Risk Assessment
IAP	Incident Action Plan
ICS	Incident Command System
IMT	Incident Management Team
IP	Improvement Plan
IPP	Integrated Preparedness Plan
JIC	Joint Information Center
MAA	Mutual Aid Agreements
MCI	Mass Casualty Incident
MOU	Memorandum of Understanding
NIMS	National Incident Management System
ODW	Office of Drinking Water
OIRE	Office of Immigrant and Refugee Engagement
OPSEC	Operational Security
OSC	Office of Strategic Communications
OSS	Office of Sustainability
PIO	Public Information Officer
POD	Point of Distribution
RAA	Richmond Ambulance Authority
RFD	Richmond Fire Department
RPD	Richmond Police Department
SCADA	Supervisory Control and Data Acquisition
SitRep	Situation Report
SOP	Standard Operating Procedure
THIRA	Threat and Hazard Identification and Risk Assessment
VAL	Voluntary Agency Liaison

Acronym	Definition
VCU	Virginia Commonwealth University
VDEM	Virginia Department of Emergency Management
VDH	Virginia Department of Health
VNG	Virginia National Guard
WTP	Water Treatment Plant