HALIFAX

P.O. Box 1749
Halifax, Nova Scotia
B3J 3A5 Canada

Item No. 15.3.1
Halifax Regional Council
June 4, 2024

TO: Members of Halifax Regional Council

                Original Signed
SUBMITTED BY:
_____

Mayor Mike Savage, Chair, Executive Standing Committee

DATE: May 27, 2024

SUBJECT: **Halifax Regional Municipality Emergency Management Program Document Review**

ORIGIN

May 27, 2024 meeting of the Executive Standing Committee, Item 13.1.1.

LEGISLATIVE AUTHORITY

Legislative Authority is outlined in the attached staff report dated May 2, 2024.

RECOMMENDATION

The Executive Standing Committee recommends that Halifax Regional Council:

1. Accept the recommendations in Attachment 1 of the staff report dated May 2, 2024; and

2. Direct the Chief Administrative Officer (CAO) to implement the recommendations in Attachment 1 of the staff report dated May 2, 2024; and

3. Direct the CAO to report on status of implementation of report's recommendations twice yearly to Executive Standing Committee.

BACKGROUND

Executive Standing Committee received a staff recommendation report dated May 2, 2024 to consider the Halifax Regional Municipality Emergency Management Program Document Review.

For further information refer to the attached staff report dated May 2, 2024.

DISCUSSION

Executive Standing Committee considered the staff report dated May 2, 2024 and approved the recommendation, as amended, to Halifax Regional Council as outlined in this report.

FINANCIAL IMPLICATIONS

Financial implications are outlined in the attached staff report dated May 2, 2024.

RISK CONSIDERATION

Risk consideration is outlined in the attached staff report dated May 2, 2024.

COMMUNITY ENGAGEMENT

Meetings of the Executive Standing Committee are open to public attendance and members of the public are invited to address the Standing Committee for up to five (5) minutes during the Public Participation portion of the meeting. Meetings are live webcast on Halifax.ca. The agenda, reports, video, and minutes of the Standing Committee are posted on Halifax.ca.

For further information on Community Engagement refer to the attached staff report dated May 2, 2024.

ENVIRONMENTAL IMPLICATIONS

Environmental implications are outlined in the staff report dated May 2, 2024.

ALTERNATIVES

Alternatives are outlined in the attached staff report dated May 2, 2024.

ATTACHMENTS

Attachment 1 – Staff recommendation report dated May 2, 2024.
_____

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

Report Prepared by: Catie Campbell, Legislative Assistant, Municipal Clerk's Office 782.641.0796.
_____

HALIFAX

P.O. Box 1749
Halifax, Nova Scotia
B3J 3A5 Canada

Item No. 13.1.1
Executive Standing Committee
May 27, 2024

TO: Mayor Savage and Members of Executive Standing Committee

SUBMITTED BY: **- ORIGINAL SIGNED -**

Cathie O'Toole, Chief Administrative Officer

DATE: May 2, 2024

SUBJECT: **Halifax Regional Municipality Emergency Management Program Document Review**

ORIGIN

Staff Initiated Report

LEGISLATIVE AUTHORITY

Section 3b of the Terms of Reference of the Executive Standing Committee, which states that the Committee "shall advise the Council on the development of Emergency Management plans and present the Municipal Emergency Management Plans to the Council."

RECOMMENDATION

It is recommended that Executive Standing Committee recommend that Halifax Regional Council:

1. Accept the recommendations in the attached report; and

2. Direct the CAO to implement the recommendations in the attached report.

EXECUTIVE SUMMARY

Halifax Regional Municipality's (HRM) Emergency Management (EM) Program consists of a centralized Emergency Management (EM) Division within the Community Safety Business Unit (CSBU) and supporting EM functions at the various other Business Unit (BU) levels. Within this construct, various Emergency Management Plans, Business Continuity Plans, studies, After-Action Reviews (AAR) and related stand-alone documents were created to provide EM guidance within individual BUs. The addition of initiatives such as HalifACT 2050 have tangible action items concerning emergency management that cannot be addressed in isolation. This report was created to provide a review of the current state of emergency

management documentation for HRM as compared to a recognized standard and to provide recommendations on the projects and their sequencing to complete a comprehensive and coherent emergency management program. The main findings are summarized below.

1.   When compared against an approved standard for emergency management program compliance/completeness, there were significant gaps. This was expected as emergency management in HRM appears to have evolved in an ad hoc manner over decades. Although some plans, reports and studies were found related to EM, primarily at the BU level, it was not always clear on how they fit into a comprehensive, municipality-wide, overall strategic approach to EM. The absence of an overall approved strategic EM program aligned with industry best practices and standards is of concern. To provide the necessary structure beyond simply a staffing plan, it is essential that HRM develop and approve a multi-year Strategic Plan.

2. The updated Hazards, Risk and Vulnerability Assessment (HRVA) is critical to the planning and execution of an effective EM Program. It would be ideal to have a complete and approved HRVA prior to the development or review of other program documents but is not necessary. There are a number of concurrent projects that can be initiated/implemented prior to the completion of the HRVA. These documents, such as a Strategic Plan, Comprehensive Emergency Management Plan (CEMP), Emergency Operations Centre Concept of Operations (EOC ConOps), Business Continuity Plans (BCPs), Resource Management Plan and a Training and Exercise Plan, can all be initiated based on existing data and the interim results of the HRVA. All these integrated plans would be amended as required upon the delivery of the approved HRVA.

3. The development of a CEMP as stated above would provide the structure and operational direction for emergency management in HRM. The plan would replace the Municipal Emergency Plan with updated and more detailed information for elements of prevention, mitigation, preparedness, response and recovery. This document requires the completion of an EM Strategic Plan and is based on the HRVA. It can be completed as an interim plan pending HRVA completion.

4. The CEMP would provide the necessary structure and guidance for the completion of EM plans for all BU's. Each BU has the knowledge and experience to operate in emergency situations but most lack documented procedures and checklists to reference for all elements of EM. It is a challenge for some BU's to maintain a viable EM function without a dedicated internal HR personnel or enhanced support from the Emergency Management Office (EMO) if sufficiently staffed, or contracted resources.

5. The Strategic Plan for emergency management and the CEMP will outline and then describe in detail respectively, the structure and role of the Municipal Emergency Operations Centre (EOC). Once the structure and role has been approved, there is a requirement for an Emergency Operations Centre "Concept of Operations" (EOC ConOps) to be updated.

6. Creation of a Continuity of Government (COG) Plan is required. This is a separate document that identifies how the governing body will be preserved, maintained, or reconstituted and address the following: succession of leadership; delegation of emergency authority; and command and control. This plan will require Legal and Legislative Services input and consultation but can be completed concurrently with the CEMP.

7. Emergency planning and response is difficult and resource-intensive. Training and exercises are part of a comprehensive emergency management program involving a continuous cycle of planning, organizing, equipping, training, exercising, evaluating and taking corrective action. HRM requires a Training and Exercise Plan so that properly trained personnel are ready and available to respond to all types of emergencies.

8. Based on review of the previous four (4) years of EM planning committee agendas, presentations and minutes, it is assessed that the committee meetings function as a briefing forum of EM related projects and initiatives in HRM. The addition of an operational level Coordination Group composed of BU coordinators and led by the Director of Emergency Management, would be a more effective level to conduct coordinated

planning and development for EM. This working group would report to the EM Planning Committee and receive direction and/or approval for EM related initiatives. A project tracking dashboard would also assist with an overall view of timelines, project champions and project dependencies/relationships.

BACKGROUND

In April 2023, Emergency Management was moved into the newly formed Community Safety Business Unit. In meetings with staff and initial review of programs, various operational aspects of the program were identified that did not appear to be aligned with the present legislated framework. To assess the status of the program research was conducted to determine if there was a framework capable of being used as an assessment tool.   The Emergency Management Accreditation Program (EMAP) was identified. The ANSI/EMAP 5-2022 Emergency Management Standard by EMAP is a set of 73 standards by which programs that apply for EMAP accreditation are evaluated.   The Emergency Management Standard is designed as a tool for continuous improvement as part of the voluntary accreditation process for local, state, federal, higher education and tribal emergency management programs.

The Emergency Management Standard covers:

Program Management, Administration and Finance, and Laws and Authorities
Hazard Identification, Risk Assessment and Consequence Analysis
Hazard Mitigation
Prevention
Continuity Planning and Procedures
Operational Planning and Procedures
Incident Management
Resource Management, Mutual Aid and Logistics
Communications and Warning
Facilities
Training
Exercises, Evaluations and Corrective Action
Emergency Public Education and Information

EMAP maintains a three-year cycle for the Emergency Management Standard. The three-year review cycle is designed to ensure committee and commission review of comments from the public, applicant programs, and assessors as well as evolving industry practices.

Staff engaged KI Emergency Management to undertake the first initial scoping review. The primary purpose of the HRM Emergency Management Program Document Review (Document Review) was to determine the current state of documents that support the Emergency Management program across all municipal BU's. The Document Review was proposed by Bill Moore, Executive Director of Community Safety Business Unit at a meeting, on 13 September 2023, and was briefed to the HRM Emergency Management Planning Committee meeting, on 16 February 2024. The report (Attachment 1) was completed and delivered to HRM at the end of March 2024. It is on the agenda of the May 10th Emergency Management Planning Committee meeting and is now being shared with the Executive Standing Committee.

DISCUSSION

The Report provides a series of recommendations as noted in the Executive Summary included in this report. The first step would be the creation of a multi-year strategic plan for the Emergency Management Program. Preliminary analysis has already been undertaken using the results of the Report and After-Action Report recommendations from the Wildfire Report.

FINANCIAL IMPLICATIONS

No financial implications at this time. The Strategic Plan would provide a roadmap.

RISK CONSIDERATION

HRM Enterprise Risk Registry (ER-20)

The risk that HRM is not adequately fulfilling its provincially legislative requirement to prepare Emergency Management plans and assess the municipality's level of preparedness (internally and externally), resulting in failure to meet legislative requirements, decreased efficiency and efficacy for HRM Emergency Operations Centre, and long term recovery implications to those impacted.

COMMUNITY ENGAGEMENT

It is recommended that the Strategic Plan be informed by Community Engagement. To date, there have been a number of community sessions related to wildfire response, egress routes and Hazard Risk Vulnerability Assessments but additional opportunities should be considered in the process.

ENVIRONMENTAL IMPLICATIONS

No environmental implications were identified.


ALTERNATIVES

Regional Council could choose to not accept the recommendations in the HRM Emergency Management Program Document Review report.

ATTACHMENTS

Attachment 1   Halifax Regional Municipality Emergency Management Program Document Review
_____

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

Report Prepared by: Bill Moore, Executive Director Community Safety Phone #902-490-8456
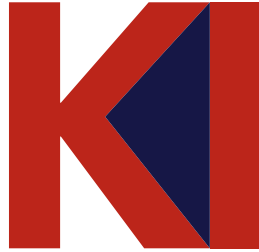
Halifax Regional Municipality
Emergency Management Program Document Review

March 2024

Prepared for Mr. William Moore
Executive Director Community Safety
Halifax Regional Municipality

By KI Emergency Management

Halifax Regional Municipality
Emergency Management Program Document Review

Table of Contents

Executive Summary

Halifax Regional Municipality's (HRM) Emergency Management (EM) Program consists of a centralized Emergency Management (EM) Division within the Community Safety Business Unit (BU) and supporting EM functions at the various other BU levels. Within this construct, various Emergency Management Plans, Business Continuity Plans, studies, After-Action Reviews (AAR) and related stand-alone documents were created to provide EM guidance within individual BUs. The addition of initiatives such as HalifACT 2050 have tangible action items concerning emergency management that cannot be addressed in isolation. This report was created to provide a review of the current state of emergency management documentation for HRM as compared to a recognized standard and to provide recommendations on the projects and their sequencing to complete a comprehensive and coherent emergency management program. The main findings are summarized below.

1. When compared against an approved standard for emergency management program compliance/completeness, there were significant gaps. This was expected as emergency management in HRM appears to have evolved in an ad hoc manner over decades. Although some plans, reports and studies were found related to EM, primarily at the BU level, it was not always clear on how they fit into a comprehensive, municipality-wide, overall strategic approach to EM. The absence of an overall approved strategic EM program aligned with industry best practices and standards is of concern. To provide the necessary structure beyond simply a staffing plan, it is essential that HRM develop and approve a multi-year Strategic Plan.

2. The updated Hazards, Risk and Vulnerability Assessment (HRVA) is critical to the planning and execution of an effective EM Program. It would be ideal to have a complete and approved HRVA prior to the development or review of other program documents but is not necessary. There are a number of concurrent projects that can be initiated/implemented prior to the completion of the HRVA. These documents, such as a Strategic Plan, Comprehensive Emergency Management Plan (CEMP), Emergency Operations Centre Concept of Operations (EOC ConOps), Business Continuity Plans (BCPs), Resource Management Plan and a Training and Exercise Plan, can all be initiated based on existing data and the interim results of the HRVA. All these integrated plans would be amended as required upon the delivery of the approved HRVA.

3. The development of a CEMP as stated above would provide the structure and operational direction for emergency management in HRM. The plan would replace the Municipal Emergency Plan with updated and more detailed information for elements of prevention, mitigation, preparedness, response and recovery. This document requires the completion of an EM Strategic Plan and is based on the HRVA. It can be completed as an interim plan pending HRVA completion.

4. The CEMP would provide the necessary structure and guidance for the completion of EM plans for all BU's. Each BU has the knowledge and experience

to operate in emergency situations but most lack documented procedures and checklists to reference for all elements of EM. It is a challenge for some BU's to maintain a viable EM function without a dedicated internal HR personnel or enhanced support from the Emergency Management Office (EMO) if sufficiently staffed, or contracted resources.

5. The Strategic Plan for emergency management and the CEMP will outline and then describe in detail respectively, the structure and role of the Municipal Emergency Operations Centre (EOC). Once the structure and role has been approved, there is a requirement for an Emergency Operations Centre "Concept of Operations" (EOC ConOps) to be updated.

6. Creation of a Continuity of Government (COG) Plan is required. This is a separate document that identifies how the governing body will be preserved, maintained, or reconstituted and address the following: succession of leadership; delegation of emergency authority; and command and control. This plan will require Legal and Legislative Services input and consultation but can be completed concurrently with the CEMP.

7. Emergency planning and response is difficult and resource-intensive. Training and exercises are part of a comprehensive emergency management program involving a continuous cycle of planning, organizing, equipping, training, exercising, evaluating and taking corrective action. HRM requires a Training and Exercise Plan so that properly trained personnel are ready and available to respond to all types of emergencies.

8. Based on review of the previous four (4) years of EM planning committee agendas, presentations and minutes, it is assessed that the committee meetings function as a briefing forum of EM related projects and initiatives in HRM. The addition of an operational level Coordination Group composed of BU coordinators and led by the Director of Emergency Management, would be a more effective level to conduct coordinated planning and development for EM. This working group would report to the EM Planning Committee and receive direction and/or approval for EM related initiatives. A project tracking dashboard would also assist with an overall view of timelines, project champions and project dependencies/relationships.

1: Introduction

"In Canada, emergency management adopts an all-hazards approach to address both natural and human-induced hazards and disasters. These are increasing in both number and frequency across the world, resulting in ever growing human suffering and economic cost. Canada is not immune to these events. Natural and human-induced hazards and disasters have become more prevalent in urban and rural communities. Human-induced hazards, such as terrorist attacks and hazardous material incidents are likely to persist. In addition, scientists predict that climate change will continue to increase the frequency and intensity of extreme weather events such as heat waves, heavy rainfalls and related flooding, droughts, forest fires, significant winter storms, hurricanes and tornadoes that may increasingly strain emergency management capacities and budgets across Canada. These events can have profoundly negative effects on Canadians." (Public Safety Canada, An Emergency Management Framework for Canada, 2017) These events have reinforced the need to examine the state of the HRM EM Program documentation to coordinate and integrate all activities necessary to enhance, build, sustain, and improve the capability to prevent from, mitigate against, prepare for, respond to, and recover from threatened or actual natural disasters, acts of terrorism, or other person-made disasters.

2: Purpose

The primary purpose of the *HRM Emergency Management Program Document Review (Document Review)* is to determine the current state of documents that support the Emergency Management program across all municipal BU's.

3: Background

The *Document Review* was proposed by Mr. Bill Moore, Executive Director of Community Safety Business Unit at a meeting, 13 September 2023, and was briefed to the HRM Emergency Management Planning Committee meeting, 16 February 2024.

Participating Business Units included:

- Public Works
- Halifax Regional Police
- Property, Fleet and Environment
- Halifax Transit
- Halifax Regional Fire and Emergency
- Parks and Recreation
- Finance and Asset Management
- Halifax Water
- Legal and Legislative Services

- Information and Communication Technologies

- Office of the Chief Administration Officer

- Human Resources

- Community Safety

- Planning and Development

- Royal Canadian Mounted Police (RCMP)

4: Objectives

Objectives of the review were as follows:

- identify (locate) current documents related to HRM emergency management processes, guidelines and standards (e.g. HRM Emergency Management Plan 2017, Business Unit Business Impact Analysis);

- undertake crosswalk comparison of existing documents against standards defined within a recognized Emergency Management Standard. (e.g. Emergency Management Accreditation Program (EMAP));

- prepare a summary of observations (strengths and deficits) of the current program by undertaking a modified gap analysis; and

- prepare a DRAFT Implementation Plan to guide HRM's Community Safety Program towards a best practices environment that can be used for strategic planning, improvement efforts, resource allocations, budgeting and operational readiness.

5: Methodology

5.1 EMAP

KI Emergency Management (KI) consultants used the Emergency Management Accreditation Program (EMAP) as a "best practices" standard to determine the *thoroughness, relevance, currency, accuracy, distribution,* and *usefulness*, (usefulness defined as "documents consistently being used and followed") of HRM's EM documents and by extension the HRM EM Program as a whole.

Documents were reviewed against EMAP and various strengths and areas for improvement were identified within the documents, as well as the EM Program itself. Some of these areas for improvement were previously noted in the *Strategic Priorities Emergency Management* document (E. Fleck, 2024) although not approved, was reviewed as part of this study.

EMAP is a voluntary accreditation process and provides EM programs the opportunity to be recognized as having achieved compliance with the highest industry standards for a comprehensive emergency management program.

The EMAP EM Standard covers:

- Program Management, Administration and Finance, and Laws and Authorities

- Hazard Identification, Risk Assessment and Consequence Analysis, (aka HRVA)

- Hazard Mitigation

- Prevention

- Continuity Planning and Procedures (including Continuity of Operations and Continuity of Government plans)

- Operational Planning and Procedures (including the Municipal Emergency Plan and the Recovery Guide)

- Incident Management

- Resource Management, Mutual Aid and Logistics

- Communications and Warning

- Facilities (including the Primary and Alternate Emergency Operations Centre)

- Training

- Exercises, Evaluations and Corrective Action, and

- Emergency Public Education and Information

5.2 Review Process

The review process was undertaken in three (3) phases:

- Phase One (1) consisted of obtaining access to emergency management related documents that could be found by each of the Business Unit points of contact (POC). These documents were reviewed by the KI project team. Additional meetings and interviews were undertaken with the applicable POCs.

- Phase Two (2) consisted of a comparison of the various documents against the EMAP Standard to determine the current state, the desired state and the gap that exists between them.

- Phase Three (3) consisted of comprehensive analysis of findings to provide the recommended priorities for the implementation plan.

6: Methodology

The first tangible benefit to the review process has been the search and location of EM related documents by the Business Units such that an overall review could be accomplished. The observations, findings and analysis below represents an acknowledgement of the existence of documents as related to the EMAP Standard. The goal of the review was to understand the status of EM documentation. Where time permitted, initial comments and observations on relevance, currency and interoperability with other departments and plans have been provided.

6.1 Emergency Management Program

The Emergency Management Office (EMO) Nova Scotia's *Strategic Emergency Plan* directs all municipalities to prepare and approve emergency management plans that guide the municipal EM organization. In a municipality of the size and scope of HRM, this directive is an excellent starting point for determining the thoroughness of HRM's EM Program. However beyond just a Strategic Emergency Plan, there is a requirement for an overarching EM Program, that is rooted in commonly accepted best practices (e.g. EMAP), reflects HRM's values, internal policies, compliance with government regulations, support for its citizens and the environment, and addresses EM from a strategic, operational and tactical construct.

Additionally, the need for an EM Program is supported by Public Safety Canada, CSA Group (CSA Z1600:17), EMAP, and internally in draft documents such as the *Strategic Priorities Emergency Management document* (currently not approved, E. Fleck, 2024). This requirement is further implied in the HalifACT 2050 Climate Action plan (23 June]2020) through specific actions assigned to HRM Emergency Management that require a comprehensive program approach for implementation. These HalifACT action items are as follows:

- (15) Conduct a high-level risk assessment (HLRA) with internal and external stakeholders for utilities, transportation, water, health facilities and telecoms

- (16) Conduct a detailed spatially-based risk and vulnerability analysis of municipally-owned and -operated critical infrastructure at the asset class and system level

- (27) Conduct a detailed spatially-based risk and vulnerability analysis of Halifax's coastal, waterfront, and shoreline area

- (28) Develop a coastal-specific adaptation strategy with coastal communities

- (29) Develop climate event evacuation plans: flooding, wildfire and coastal storm surge

- (30) Improve emergency management communication and coordination across EMO agencies and organizations

- (31) Create Disaster Support/Community Resilience Hubs for community self-sufficiency

- (32) Make emergency management training widely available to residents and businesses

- (33) Undertake climate planning sessions with neighbourhood organizations to develop local climate plans and coordinate mitigation and adaptation efforts

A Comprehensive Emergency Management Program is assessed as essential to ensure that HRM is resilient moving forward.

Analysis:

When compared against the EMAP Standard for EM Program compliance/ completeness, there were significant gaps. This was expected as emergency

management in HRM appears to have evolved in an ad hoc manner over decades. Although some plans, reports and studies were found related to EM, primarily at the BU level, it was not always clear on how they fit into a comprehensive, municipality-wide, overall strategic approach to EM. The absence of an overall approved strategic EM Program aligned with industry best practices and standards is of concern.

To provide the necessary structure beyond simply a staffing plan, it is essential that HRM develop and approve a multi-year Strategic Plan, with input from stakeholders, that includes the following:

- Vision Statement for Emergency Management;

- Mission, Goals, Objectives, and Milestones for the EM Program;

- Emergency Management Structure for HRM;

- A Method for Plan Implementation; and

- A Maintenance Process, Including a Method and Schedule for Evaluation and Revision.

All other facets of a Comprehensive Emergency Management Program can be implemented based on the structure and direction articulated in this Strategic Plan.

6.2 Hazard Risk and Vulnerability Assessment (HRVA)

The existing HRVA is dated from 2015 and has numerous gaps (e.g. increasing population size, new communities, aging infrastructure, climate change, better information, etc.) regarding the present hazards, risks and vulnerabilities facing HRM.

There is an updated HRVA project that was initiated in June of 2021, with an estimated completion date (phase 4) of June 2025. An updated and improved HRVA will help HRM make risk-based choices to address vulnerabilities, mitigate hazards and prepare for response to, and recovery from, a range of hazard events.

The new HRVA is one of the cornerstone documents on which to base the remainder of the EM program in addition to the strategic plan.

Analysis:

The updated HRVA is critical to planning and execution of an effective EM program. It would be ideal to have a complete and approved HRVA prior to the development or review of other program documents, but is not necessary. There are a number of concurrent projects that can be initiated/implemented prior to the completion of the HRVA. These documents, such as a Strategic Plan, Comprehensive Emergency Management Plan, Emergency Operations Centre Concept of Operations, Business Continuity Plans, Resource Management Plan, and a Training and Exercise Plan, can all be initiated based on existing data and the interim results of the HRVA. All these integrated plans would be amended as required upon the delivery of the approved HRVA.

6.3 Municipal Emergency Plan

The 2017 Municipal Emergency Plan (MEP) contains many of the element headings for an emergency plan but does not appear to be thorough or comprehensive enough to provide much direction and guidance as HRM becomes increasingly EM aware.

According to the *Canadian Centre for Occupational Health and Safety*, "an emergency plan specifies procedures for handling sudden or unexpected situations. The objective is to be prepared to: prevent fatalities and injuries; reduce damage to buildings, stock, and equipment; protect the environment and the community; and accelerate the resumption of normal operations."

Analysis:

The draft *Strategic Priorities Emergency Management* document (2024) identifies the urgent requirement for a Comprehensive Emergency Management Plan to replace the MEP. The comparison of the MEP against the EMAP Standard identifies missing elements such as Strategic Plan, Administration and Finance, Mitigation, Prevention, Continuity of Government, Training and Exercise Plan, EOC Plan and an updated Emergency Information and Public Education Plan. Some of this information is available in various other documents, but is neither centrally located nor updated to include the action items in the HalifACT 2050 Climate Action Plan.

As stated in the HRVA analysis, a Strategic Plan, followed by a modernized Comprehensive Emergency Management Plan (CEMP), is recommended for development as soon as practical. The plan must be based on the HRVA that is still in development, but the elements of the CEMP can be progressed in parallel to this effort. The CEMP would represent the HRM operational level structure and direction for emergency management centrally and within BU's.

6.4 Business Unit Emergency Management Plans

All BU's are required to have an emergency plan as stated in By-Law E-100 and section 2.4 of the MEP. A review of all identified EM documents concluded that EM plans are in existence for Halifax Regional Police, Halifax Water, Halifax Transit, and the Office of the Chief Administrative Officer.

Analysis:

The development of a CEMP would provide the necessary structure and guidance for the completion of EM plans for all BU's. Each BU has the knowledge and experience to operate in emergency situations, but most lack documented procedures and checklists to reference for all phases. It is a challenge for some BU's to maintain a viable EM function without a dedicated internal HR personnel or enhanced support from the EMO if sufficiently staffed or contracted resources.

The size and scope of these plans would vary greatly by BU, but would align with the overall structure of the HRM plan.

6.5 Business Impact Analysis and Business Continuity Management

The requirement for business continuity management plans (BCP) for HRM overall and each BU individually, as directed in the MEP section 2.5, appears incomplete. The onset of the COVID-19 Pandemic necessitated the rapid yet thorough completion of Business Impact Analysis (BIA) reviews for each BU in 2020. Each BU has recently or is in the process of updating their respective BCP. There is also an audit in progress by the Auditor General for BCPs.

Analysis

The Business Impact Analysis reviews for each BU in 2020 provide relevant data to develop the BCPs. These plans require data from the updated HRVA but can be initiated based on known threats and risks. These plans can be labeled interim documents until the approved HRVA data can be incorporated. BCPs are essential to satisfy resiliency requirements for all municipal services. The status of BCPs for HRM and BUs will be determined by the audit.

6.6 Emergency Operations Centre (EOC) Concept of Operations (ConOps)

The routine, day-to-day management of government differs greatly from emergency operations. During an emergency, effective decision-making relies on leaders' ability to collect emergency-related information, which requires close coordination between key officials from a variety of BU's, partners, stakeholders, and organizations.

"An EOC is a central command and control system responsible for carrying out the principles of emergency preparedness and emergency management, or disaster management at a strategic level during an emergency and ensuring the continuity of operation of the Municipality. An EOC is a location from which leaders of a jurisdiction and staff coordinate information and resources to support incident management activities (on-scene operations). EOC team structure and composition can vary widely. Virtual or hybrid EOCs may be used to expand the EOC when physical space is limited, to create a safer operating environment (e.g., for physical distancing measures or if access to the EOC is impeded), to include additional stakeholders from the whole community who may not be able to be physically present or to support coordination during incidents in which conditions do not require in-person coordination to perform EOC functions.

An EOC is a coordination structure for collecting, analyzing and sharing information. During an incident, the EOC collects a large amount of data from multiple sources. Analysts from appropriate BU's and stakeholder organizations analyze the data and distill it into reports so that decision makers have the best possible information and intelligence when deciding how the jurisdiction will respond. Further, the EOC communicates information to response team members in the field, giving them greater insight into their work.

All EOCs have the following three (3) hallmarks:

- An EOC supports resource needs and requests, including allocation and tracking

- An EOC coordinates plans and determines current and future needs
- An EOC provides coordination and policy direction" (National Incident Management System (NIMS), *EOC How to Quick Reference Guide* 2022)

The existing EOC located in the Eric Spicer Municipal Building, 21 Mount Hope Avenue, Dartmouth, is well positioned and equipped for support and coordination of emergency response operations.

Analysis

The present EOC Handbook from 2003 does not reflect the present structure or function of the EOC. It is therefore difficult for HRM business units to coordinate their emergency operations with this entity and to provide personnel to fill roles within the structure.

Three (3) areas of improvement working towards a standardized model and training are provided in the document *Evidence-based Examination & Analysis of Incident Command Structures in Operations Centres,* Emergency Solutions International, May 14, 2021, and are appropriate.

1. Training/mentoring of personnel to core competencies and, of particular importance, establishing confidence in their knowledge, skills, and abilities;

2. Options for an Emergency Centre organizational structure that is flexible and interoperable with identified interdependent organizations; and

3. A methodology for assessing and measuring the effectiveness and efficiency of Emergency Centres.

The Municipal EOC would benefit from the creation of Operational Guidelines (including Concept of Operations) that guide the management, organization, responsibilities, and coordination necessary to provide for effective response and recovery from major emergencies of disasters at the site support level and/or coordination level through Multi-agency Coordination Entities (MACE). The Guidelines address incidents or events that may cause damage of sufficient severity and magnitude to warrant activation of the Departmental Operations Centre (DOC) and / or an Emergency Coordination Centre (ECC).

Training (as per item 1 above) should include courses such as *Introduction to Emergency Management*, *EOC Operations*, *EOC/ICP (Incident Command Post) Interface* training, Incident Command System (ICS) and EM Leadership.

Secondary and tertiary locations for the Municipal EOC also need to be clearly identified and prepared for usage if the primary location is unavailable.

6.7 Resource Management Plan

The Resource Management Plan includes a systematic identification of resource requirements, shortfalls, and inventories consistent with the HRVA and agreements needed in preparation for an incident/event and as needed during response and recovery. Resource management plans detail how you'll acquire, develop, use, manage,

control, and release the resources you need for a particular project or response. Basically, how you'll get the resources you need, turn them into a high-performing team, and manage them effectively for project success.

This information can be contained within a MEP or a CEMP but is recommended as a separate plan for the complexity and scope required for HRM. Some of the elements for the development of this plan exist in other HRM documents such as the present MEP and various BU BCPs.

Analysis

The EMAP Standard for resource management advocates addressing these aspects but does not specifically indicate if a separate plan is required. Other municipalities of similar scope such as Ottawa, Ontario, for example, have developed a separate resource management guide that is a supporting document to their Municipal Emergency Plan. A resource management plan should cover the resource needs and shortfalls through various initiatives, including the budget process, executive process, mutual aid agreements, memoranda of understanding, contractual service agreements, or business partnerships.

6.8 Emergency Management Planning Committee

The purpose and function of the EM Planning Committee is articulated in Municipal By-Law E-100. The committee is directed to:

- Assist the Municipal Emergency Management Coordinator in the preparation and co-ordination of municipal emergency management plans;

- Advise the Executive Standing Committee on the development of municipal emergency management plans;

- Upon request, assist the Executive Standing Committee in the presentation of municipal emergency management plans to Council;

- Following activation of the municipal or departmental emergency plan or a declaration of state of local emergency (SOLE), prescribe, as necessary, duties to be fulfilled by employees, agents, and volunteer firefighters of the Municipality; and

- Perform such other duties as may be required by the Executive Standing Committee or the Council.

The by-law further directs that each member of the Municipal Emergency Management Planning Committee shall prepare an emergency plan for the emergency functions assigned to their BU, agency or area of responsibility. Members will submit plans to the Municipal Emergency Management Planning Committee for approval. These plans include training and exercise programs.

Analysis

Based on review of the previous four (4) years of EM planning committee agendas, presentations and minutes, it is assessed that the committee meetings function as a briefing forum of EM related projects and initiatives in HRM. The addition of an operational level Coordination Group composed of BU coordinators and led by the Director of Emergency Management, would be a more effective level to conduct coordinated planning and development for EM. This working group would report to the EM Planning Committee and receive direction and/or approval for EM related initiatives. A project tracking dashboard would also assist with an overall view of timelines, project champions and project dependencies/relationships.

7: Priority Projects

There are several outstanding projects based on program analysis that should be addressed. The following list provides a brief description, sequencing recommendation and estimated level of effort:

7.1 Emergency Management Program

7.1.1 Program Administration and Evaluation

7.1.1.1 Multi-Year Strategic Plan for Emergency Management

It is assessed that the most immediate requirement for HRM emergency management is to define the strategic guidance for the entire program. This is pivotal to the development or updating of the remaining emergency management program elements. It should be conducted and approved as soon as possible to enable the operational level plans and guidance to be developed. Estimate forty-five (45) days level of effort.

The Strategic Plan for EM should include the following:

- Vision statement for emergency management;
- Mission, goals, objectives, and milestones for the Emergency Management Program;
- A method for Plan implementation; and
- A maintenance process, which includes a method and schedule for evaluation and revision.

7.1.1.2 Coordination

Confirm the Emergency Management Office has a delegated authority to administer the Emergency Management Program

7.1.1.3 Advisory Committee

The EM Program should have a process utilizing one or more Advisory Committees that provide coordinated input by stakeholders in the preparation, implementation, evaluation, and

revision of the Program. The Advisory Committee(s) meets with a frequency determined by the EM Program Director to provide regular input.

7.1.2 Administration and Finance

    7.1.2.1   Clarify administrative and financial procedures for use before, during, and after an emergency/disaster.

    7.1.2.2   Clarify the administrative and financial procedures required to request, receive, manage, and apply funds in emergency situations to deliver assistance and cost recovery**.**

    7.1.2.3   Ensure the EM Program has a maintenance process and includes a method and schedule for evaluation and revision.

7.1.3 Laws and Authorities

    7.1.3.1   Confirm and/or develop EM Program authorities and responsibilities are established and executed in accordance with statutes, regulations, directives, or policies.

    7.1.3.2   Confirm and/or develop EM Program has a process for identifying and addressing proposed legislative and regulatory changes.

7.2 Hazard Risk Vulnerability Assessment (HRVA) (In Progress)

This project is continuing with a projected completion date in June 2025. Visibility on the interim findings and data will be critical to other EM plan and document development concurrent to the HRVA project. Further examination of this project was out of scope for this assessment.

7.3 Comprehensive Emergency Management Plan (CEMP)

This document would provide the structure and operational direction for emergency management in HRM. The plan would replace the Municipal Emergency Plan with updated and more detailed information for prevention, mitigation, preparedness, response and recovery. This document requires the completion of the Strategic Plan and is based on the HRVA. It can be completed as an interim plan pending HRVA completion. Estimated ninety (90) days level of effort.

7.3.1 General Description:

The CEMP is designed to provide guidance and a flexible framework through which HRM may work to prevent, mitigate, prepare for, respond to and recover from the potential hazards, risks and vulnerabilities identified in the HRM's HRVA. It is intended to facilitate coordination between the various BU's of HRM as well as ensuring jurisdictional coordination among various municipal, provincial and federal organizations during incidents and events.

The CEMP is intended to accomplish the following objectives:

- Assign responsibilities to HRM Business Units and staff for carrying out specific actions during an incident /event;
- Detail the methods and procedures to be used by HRM personnel to assess incidents and take appropriate actions to save lives and reduce injuries, prevent, or minimize damage to public and private property, and protect the environment;
- Provide a process by which HRM staff can efficiently and effectively prevent, mitigate, prepare for, respond to, and recover from emergencies and disasters;
- Provide a systematic process by which HRM can return to normal (or "new normal") operating conditions after the occurrence of an emergency or disaster;
- Identify the responsibilities of the HRM Council and HRM staff during emergencies or disasters;
- Identify lines of authority and coordination for the management of an emergency or disaster;
- Identify and document procurement processes during an emergency response;
- Identify and document processes for internal/public communications; and
- Establish mandatory processes, triggers and accountabilities for After-Action Reviews (AARs). "The AAR is a qualitative review conducted after the end of an emergency response to identify best practices, gaps, and lessons observed. AARs allow stakeholders to reflect on shared experiences and perceptions of a response, and work together to identify what worked well, what did not work and why, and areas for improvement." (Public Health Ontario, Best Practices for Conducting In- and After – Action Reviews as part of Public Health Emergency Management 2022)

The CEMP is supplemented with functional, appendices and annexes. The Base Plan forms the overall framework for HRM's EM program. The CEMP annexes provide additional detail on essential discipline-specific functions (e.g. ICS, DOC/ECC Operations). Incident-specific annexes contain specialized information and procedures required to address certain specific types of incidents or events. Incident-specific annexes are maintained separately from the CEMP but are incorporated by reference.

The CEMP includes the following elements:

7.3.1.1 Base Plan:

CEMP document provides an overview of HRM's comprehensive emergency management program, its concept of operations, the hazards that the municipality faces as well as the associated risks of these hazards, and the capabilities and organization structure

needed to address these hazards. The plan document provides general guidance for primary HRM resources and outlines the procedures for such major tasks as notification, organizational structure including roles and responsibilities, on-scene response structure and Emergency Coordination Centre (ECC) support/coordination and staffing. The CEMP Base Plan cites the legal authority levels in preparation for or during emergency operations.

7.3.1.2 Annexes:

Functional annexes are plans organized around the performance of a broad task. Each annex focuses on one of the critical emergency functions that HRM may perform in response to a major emergency or disaster such as establishing an Emergency Coordination Centre, (ECC), supporting a provincial response, or maintaining business continuity. The primary audiences for the emergency functional annexes are oriented towards operations, i.e. those who perform the tasks. They do not repeat general information of the CEMP Base Plan. The emergency functional annexes do not address specific major emergencies or disasters, but rather provide a general framework that may be adapted for emergency operations during any type of incident.

7.3.1.3 Hazard-Specific Guides

Certain hazards or situations present a greater risk or vulnerability for HRM, (e.g. hurricane, wildland fire, major explosion, etc.). Hazard-specific guides expand on the framework of the base plan and provide additional guidance for responding to specific situations. The guides focus on the special planning needs of a particular hazard, addressing the essential operational actions that must be accomplished to facilitate the effective response to a specific type of major emergency or disaster.

7.3.1.4 Appendices

Appendices will be added as needed and may include checklists, legislative documents, forms, maps, and resource lists. These documents contain information that staff and responders may need to fulfill responsibilities and perform tasks.

7.4 Continuity of Government (COG) Plan

This is a separate document that identifies how the governing body will be preserved, maintained, or reconstituted and address the following: succession of leadership; delegation of emergency authority; and command and control. This plan will require Legal and Legislative Services input and consultation but can be completed concurrently with the CEMP. Estimate eighteen (18) days level of effort.

7.5 Business Continuity Plans (BCP)

There is an audit underway by the Auditor General for HRM Business Continuity Plans (BCPs). The results of this audit will provide recommendations for the priority and attention required for the BCPs for HRM and all Business Units. Further Analysis was not conducted due to the audit but it is anticipated that update work will be required on these plans. Level of effort is undetermined.

7.6 Emergency Operations Centre "Concept of Operations" (EOC ConOps)

The Strategic Plan for emergency management and the Comprehensive Emergency Management Plan will outline and then describe in detail respectively, the structure and role of the Municipal Emergency Operations Centre. Once the structure and role has been approved, there is a requirement for an Emergency Operations Centre "Concept of Operations" to be updated. This document will include:

- Purpose and Function

- Activation and Termination

- Notification Procedure

- Staffing

- Primary and Alternate Facility Set-up

- Information Technology Including Situational Awareness and Emergency Management Software

- Information Flow

- Documentation

- Facility Resource Management

This document can be developed on completion of the Comprehensive Emergency Management Plan. It will require consultations with all Business Units and external stakeholders such as EMO Nova Scotia and Public Safety Canada. Estimate forty-five (45) days level of effort.

7.7 Business Unit Emergency Plans

Compliance with Municipal Bylaw E-100 is inconsistent. The BU Emergency Management Plans would be based on HRM CEMP and therefore must be sequenced following approval of this document. Level of effort would vary by BU. Priority attention is recommended for Halifax Region Fire and Emergency (HRFE), Public Works, and Parks and Recreation. The remaining BU emergency plans are in good condition or could be in the form of standardized directives and checklists.

7.8 Resource Management Plan

A resource management plan should be designed for the hazards identified in the HRVA, that addresses the following:

- Goals and Objectives;
- Gap Analysis;
- Resource Management System(s);
- Donations Management; and
- Volunteer Management.

The plan would also include the resource management system procedures to be used during an emergency/disaster that address identification, location, acquisition, mobilization, distribution or dispatching, tracking and demobilization of resources.

This plan can be developed on completion of the CEMP and concurrently with the Business Unit emergency plans, subject to staff availability or externally contracted development assistance. Estimate thirty (30) days level of effort.

7.9 Emergency Management Training and Exercise Plan

The training needs assessment addresses the following: (1) all personnel with responsibilities in the EM Program; (2) key public officials; and (3) internal and external requirements.

Emergency planning and response is difficult and resource-intensive. Training is one piece of a comprehensive emergency management program involving a continuous cycle of planning, organizing, equipping, training, exercising, evaluating and taking corrective action.

Four (4) interconnected training streams are identified to support HRM's EM Program, they are:

- Incident Command System (ICS),

- Emergency Management (EM),

- EOC Operations, and

- Support/Exercises.

The development of this plan is estimated at twenty (20) days level of effort.

7.10 Crisis Communications Plan

The need to communicate is immediate when an emergency occurs. Many different audiences must be reached with information specific to their interests and needs.

The crisis communications plan is an important component of a municipality's preparedness program. The Municipality must be able to respond promptly, accurately and confidently during an emergency in the hours and days that follow. This plan would also address public education.

The plan should incorporate hfxALERT and Alert Ready. The development of this plan requires additional study to accurately estimate scope of work and duration.

7.11 Update HRM Evacuation Plan

The current evacuation plan for HRM (Annex to the 2017 MEP) provided the essential guidelines for evacuation but can be improved as highlighted in the Upper Tantallon Wildfire After Action Report of 2023. The program to update community wildfire protection plans commenced in 2017 and is essential to community safety and resiliency. The extraordinary growth of HRM urban areas has further lengthened the list of community plans that require attention. The HRVA project currently being conducted is critical to the completion of an updated and therefore relevant evacuation plan for HRM. The update of the plan will require extensive consultation and collaboration with additional stakeholders including federal, provincial and commercial partners. Many of the lessons observed from the Upper Tantallon Wildfire can be applied to an updated plan. The update of the plan should be sequenced to follow the delivery of the HRVA. Requires additional study to accurately estimate scope of work and duration.

7.12 Review, identify and fill HRM Emergency Management Positions

The implementation of the projects above are contingent on sufficient staff attention and expertise in emergency management. This expertise can be centrally located in the EMO or combined with EM specific positions in some of the BUs. There is a draft recommendation from the EMO for additional staffing. This proposal should be reviewed and compared to EMO staffing in municipalities of similar size/scope. Further analysis for this element was deemed out of scope.

8: Summary of Additional Recommendations

There are other recommendations based on analysis that fall outside of the priority projects in section 7. These are:

1. Include human resources policy for emergency management. Standardized language for use in job descriptions about employee expectations, requirements and compensation during emergency situations is recommended.

2. Create an operational level working group / coordination group composed of business unit coordinators and led by the Director of Emergency Management, to conduct planning and development of HRM EM initiatives and projects. This would be a more effective level to conduct planning and development for EM. This working group would report to the EM Planning Committee and receive direction and/or approval for EM related initiatives.

3. Develop an EM project tracking dashboard to assist with an overall view of timelines, project champions and project dependencies/relationships.

9: Conclusion

It is evident that the strength of the HRM EM Program rests with the skill and dedication of the staff within HRM. The greatest areas identified for improvement and therefore priority is in the articulation of the strategic plan and intended operational guidance for emergency management. The complex and diverse composition of HRM complicates the cohesive implementation of emergency management. However, with a dedicated effort that includes HRM staff and potentially outside resources, a modernized and effective EM Program can be achieved within a few years when sequenced accordingly.

Annex A: List of Acronyms

AAR	After Action Report
BCP	Business Continuity Plan
BIA	Business Impact Assessment
BU	Business Unit
CEMP	Comprehensive Emergency Management Plan
COG	Continuity of Government
ConOps	Continuity of Operations
DOC	Departmental Operations Centre
ECC	Emergency Coordination Centre
EOC	Emergency Operations Centre
EM	Emergency Management
EMAP	Emergency Management Accreditation Program
HLRA	High level risk assessment
HR	Human Resources
HRFE	Halifax Regional Fire and Emergency
HRM	Halifax Regional Municipality
HRP	Halifax Regional Police
HRVA	Hazard Risk and Vulnerability Assessment
ICS	Incident Command System
ICT	Information and Communication Technologies
IT	Information Technology
KI	KI Emergency Management
LO	Liaison Officer
MEP	Municipal Emergency Plan
NIMS	National Incident Management System
NS EMO	Nova Scotia Emergency Management Office
POC	Point of Contact
RCMP	Royal Canadian Mounted Police
SA	Situational Awareness
SOLE	State of Local Emergency

Annex B: Documents by Business Unit Table

(Documents available for review)

BU	Emergency Plan	Business Impact Assessment	Business Continuity Plan	Risk Assess	Other
HRM Community Safety	2017 Guidance for Emergency Management Plan (EMP) development Old plan 2003 Bylaw E-100				2017 Evacuation plan (Incomplete) 2003 Evacuation plan 2003 EOC Handbook 2024 draft Strategic Priorities EM Committee Meeting (Agendas, presentations and minutes) 2019-2023 2023/2024 AARs 2024 EM Projects Gantt Chart
Public Works (PW)		2020	2023	2022 Risk Register	
Waste Management			Part of PW plan		There are contract service contingency plans but no EMP
HRP	2021	2020	2021		
Property, Fleet and Environment (PFE)		2020	2019	2020	Facility Maintenance and Operations Afterhours Closure Guidelines All Facilities standing offers are set up with requirements for the contractors to

BU	Emergency Plan	Business Impact Assessment	Business Continuity Plan	Risk Assess	Other
					respond 24/7 365 days a year for any emergency calls. Multiple vendors on standing offer for contingency. There are no such clauses for Vehicle Fleet contracts.
Halifax Transit	2018 (EM Response - Security) 2020 Emergency Measures and Response Plan (EMRP)	2020			2022 Incident checklist
HRFE		2020	2024 Draft		
Parks and Recreation		2020	2023	Specific Site Risk Management Plans	Evacuation plan includes BU specific information
Finance and Asset Management		2020		2020	
RCMP	Have current EMP				
Halifax Water	Old EMP Plus Draft CEMP 2023	2020	Planned for 2024		
CAO	2016 Disaster and Recovery Plan				

BU	Emergency Plan	Business Impact Assessment	Business Continuity Plan	Risk Assess	Other
Legal and Legislative Services	Manual for Operations	2020			
Information and Communication Technologies (ICT)		2020	2018		Draft Cyber Response Plan (2024)
Human Resources	Inclement weather Policy 2021	2020			Office Closure SOP. Leave for Government-declared Emergency 2022. EM clause in employee contracts, Return to Workplace during COVID-19 Employee Guide 2021
Planning and Development		2020	2020	2020	