

REPORT ON:

# **Business Continuity Management Program – Phase I**

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## Executive Summary and Overall Conclusion

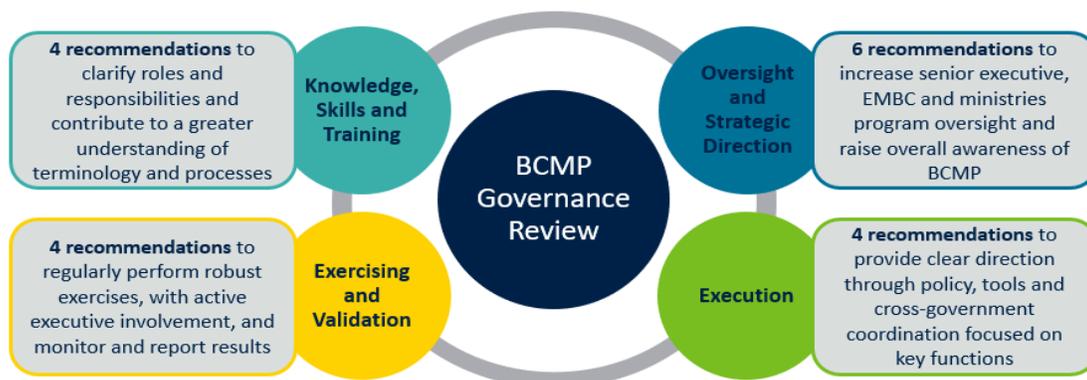
In recent years, British Columbia has experienced annual natural disasters including wildfires, floods and most recently the COVID-19 pandemic. These and other disruptive events, which continue to increase in frequency and magnitude, can challenge an organization's ability to continue its operations. To ensure its long-term success, an organization needs to anticipate, prepare for, respond to and adapt to such sudden disruptions.

Business Continuity planning identifies organizational risks and prioritizes strategies to recover key operations during a disruption. Without it the Government of British Columbia (Government or Province) may fail to identify, prioritize and resume key functions during a disruption which may cause harm to citizens, the environment, and the economy. Through legislation, regulation and public policy, the Province has established a Business Continuity Management Program (BCMP) to protect and resume critical Government services after a disruptive event. Each Ministry is required to establish and maintain its own BCMP to meet these objectives. Emergency Management BC (EMBC) is responsible for the oversight and coordination of Ministry BCMPs. This is achieved through the Provincial BCMP, a common framework for the development and administration of Ministry BCMPs.

Internal Audit & Advisory Services carried out this review as a part of a multi-phase Business Continuity project to understand any significant challenges impacting program effectiveness, identify potential efficiencies and provide advice to improve the overall value of the program. Phase I focused on the governance of BCMP across Government and Phase II will focus on Government readiness.

Overall, our review found that while the Province has established the key elements of a BCMP, the governance of the program could be strengthened in the following areas: oversight and strategic direction, execution, exercising and validation, and knowledge, skills and training. Fully integrating these aspects of a comprehensive BCMP are needed to better prepare Government in its ability to effectively respond to disruptive events.

**Figure: Key Themes and Recommendations of the BCMP Review, Phase I**



Source: Internal Audit & Advisory Services

Business Continuity staff at EMBC and Ministries are passionate about their work, devoted to fulfilling the requirements of the Provincial and Ministry BCMPs and demonstrate a desire for continuous improvement of the program. However, we found that EMBC requires additional resourcing to fulfill the requirements and expectations of the Provincial BCMP; as well Ministries' executive oversight and Business Continuity staff's knowledge and skills need to be strengthened to further mature their BCMPs.

In 2007, we conducted an audit of readiness of the Province's BCMP for a larger scale event which determined 30 recommendations addressed to EMBC and Ministries. Some of these recommendations remain outstanding and align with the recommendations identified in this review. The constraints of the current governance model limits Government's ability to address past and current recommendations. Therefore, EMBC and Ministry senior executive should consider a governance model which can best meet the strategic goals and long-term objectives of the Province's BCMP.

Subsequent to the fieldwork of this review, Ministries enacted Business Continuity measures to address the COVID-19 pandemic. Some of the Business Continuity practices reviewed during our fieldwork may have changed as a result of these measures. This report did not evaluate the effectiveness of actions taken by Ministries to continue operations during the pandemic. An assessment by EMBC and Ministries of how the pandemic impacted operations to identify any subsequent lessons learned from this event would strengthen the Province's BCMP in the long-term.

While this review focused on a selection of Ministries, our recommendations are relevant across Government and we encourage other organizations to consider enhancing their BCMP.

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We would like to thank staff from EMBC and the Ministries who participated in and contributed to this review. We greatly appreciate their cooperation and assistance, and in particular, during the COVID-19 pandemic.

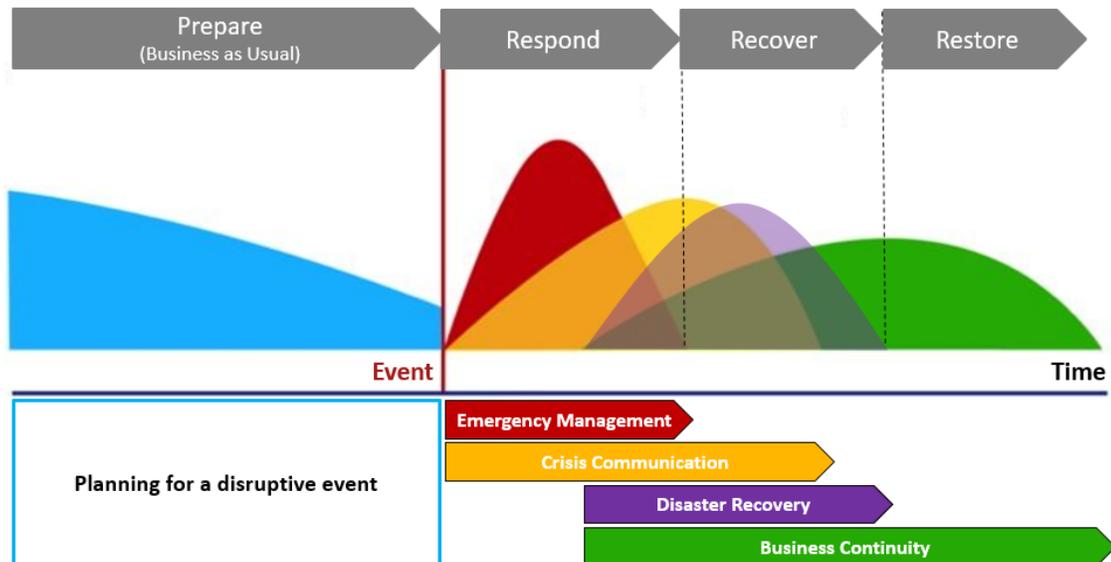


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## Introduction

Business Continuity is a discipline that identifies organizational risks arising from a disruption in operations or services and prioritizes and prepares solutions to effectively address such disruptions. Business Continuity is part of the overall crisis management process which is designed to prevent or minimize the damage a crisis can inflict on an organization and its stakeholders.

**Figure 1: Components and Phases of Crisis Management**



**Source:** Internal Audit & Advisory Services, adapted from PricewaterhouseCoopers LLP Canada

**Emergency Management** focuses on the prevention and mitigation of, preparedness for, immediate response to, and recovery from a disruptive event. For example, planning the safe evacuation of an office during a fire.

**Crisis Communication** focuses on how an organization's response will be communicated with stakeholders. For example, hosting media conferences to share information on the organization's actions after an earthquake with the public.

**Disaster Recovery** focuses on the recovery and restoration of information technology needed to support critical business functions. For example, restoring a system or application that stopped working as a result of a server failure.

**Business Continuity** focuses on the resumption of critical business functions until a return to normal operations is possible by outlining the actions an organization takes to continue or recommence these functions after a disruption occurs. For example, implementing a secondary work site or work from home strategies if an office remains unavailable after a flood.

In order to support the achievement of its strategic objectives, an organization establishes a Business Continuity Management Program (BCMP) to proactively develop the capability to resume essential operations after a disruptive event.

The *Emergency Program Act* and the Emergency Program Management Regulation provide the framework and authority for Emergency Management in the Province. Under the Emergency Program Management Regulation, each minister is required to develop plans and procedures to continue essential services during a disruption. The Government of British Columbia (Government or Province) uses Business Continuity to safeguard its **Critical Services** by creating and maintaining **Business Continuity Plans (BCP)**.

#### **Business Continuity Plan**

One of several documented processes within a BCMP and contains procedures to guide the response, recovery and resumption of Critical Services.

Critical Services collectively refers to Mission Critical and Business Priority Services;

- **Mission Critical Services** – those functions and processes that, should they not be performed, could lead to loss of life or injury, personal hardship to citizens, major damage to the environment, or significant loss of revenue or assets.
- **Business Priority Service** – business function or process that is not Mission Critical, but should it not be performed, could lead to the loss of a major Government service.

The Core Policy and Procedures Manual (CPPM) states the objectives of the Provincial BCMP are to:

- safeguard critical Government services and business processes by planning for the resumption of the functions, dependencies, and resources that support them following a disaster or business disruption;
- provide a common framework for the development and administration of Ministry BCMP;
- define the authorities and accountabilities for Ministry BCMP; and
- support Government-wide emergency preparedness, response, and recovery during a disaster or business disruption.

**Figure 2: Provincial BCMP Framework**



**Source:** IAAS, adapted from the CPPM

Under the CPPM, each Ministry is required to establish and maintain its own BCMP. The Provincial BCMP framework, as shown in Figure 2 above, supports the fulfillment of Ministries' BCMP requirements.

Business Continuity within the Province is supported and overseen by Emergency Management BC (EMBC). EMBC was formed in 2006 to be the Province's lead coordinating agency for Emergency Management and resides within the Ministry of Public Safety and Solicitor General.

## Purpose, Scope and Approach

This review is part of a multi-phase Business Continuity project to improve the overall effectiveness and maturity of the program. Phase I focused on the governance of BCMP across Government and Phase II will focus on Government readiness.

In 2007 Internal Audit & Advisory Services (IAAS) conducted a review of the Province's BCMP which assessed readiness for Business Continuity in the event of a major emergency across Government. The report identified relatively low levels of compliance with the CPPM and made 30 recommendations to strengthen accountability for BCMP and enhance the effectiveness of BCMP within Ministries through adequate resourcing, training, exercising and recurring quality assurance.

EMBC requested that IAAS conduct another review of the Province's BCMP to understand any significant challenges impacting program effectiveness, identify potential efficiencies and provide Government advice to improve the overall value of the program. This review evaluated and made recommendations related to both EMBC's coordination, support and oversight of the Provincial BCMP, and the management of BCMP within Ministries.

We selected five core Government organizations for this review: EMBC, Ministry of Agriculture, Ministry of Health, Ministry of Municipal Affairs and Housing, and Ministry of Social Development and Poverty Reduction (collectively referred to as sample organizations).

The review approach involved:

- interviewing EMBC and key Business Continuity staff across all Ministries;
- surveying Business Continuity staff across all Ministries;<sup>1</sup>
- reviewing sample organization Business Continuity documents;
- engaging with subject matter experts; and
- conducting jurisdictional analysis and reviewing industry good practices.

The review was conducted by IAAS and fieldwork was completed in March 2020.<sup>2</sup>

We have provided each sample organization with recommendations to help align their BCMP with industry good practices and the CPPM.

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<sup>1</sup> IAAS conducted a voluntary, anonymous BCMP survey in December 2019 of over 350 Business Continuity staff across all Ministries. The response rate was 50%.

<sup>2</sup> Subsequent to the fieldwork of this review, Government undertook initiatives to address the COVID-19 pandemic. IAAS did not assess Government's Business Continuity response during the pandemic as part of this review.

## 1.0 Governance and Oversight

EMBC is responsible for the centralized coordination and oversight of Ministry BCMPs through the Provincial BCMP by:

- Providing leadership in Emergency Management through executive coordination, strategic planning and multi-agency facilitation.
- Providing the framework and guidelines for the establishment of overall provincial Business Continuity priorities.
- Co-Chairing the Inter-Agency Emergency Preparedness Council (IEPC).

The Emergency Program Management Regulation establishes the IEPC as a council to recommend emergency preparedness, response and recovery measures across Government. The CPPM outlines IEPC's roles and accountabilities with respect to Business Continuity. Deputy Ministers are responsible for implementing their Ministry BCMP in compliance with regulation, the CPPM and EMBC standards.

**Figure 3: The Province's BCMP Governance Structure**



Source: IAAS adapted from the CPPM

We considered how BCMP roles, responsibilities, processes and activities as per the *Emergency Program Act*, the Emergency Program Management Regulation and the CPPM align with expectations of other jurisdictions and industry good practices. We found that the Province's policy framework generally aligns with these expectations. While the CPPM could be further refined, the Province's policy framework includes the key elements of a comprehensive BCMP.<sup>3</sup>

<sup>3</sup> In January 2016, EMBC issued a discussion paper outlining potential changes to modernize the *Emergency Program Act*. This ongoing initiative seeks to support effective management of emergencies, including Business Continuity, and may require subsequent changes to the CPPM. The extent of potential changes to legislation on the Province's BCMP has not been assessed as part of this review.

## 1.1 Strategic Oversight

A BCMP should be approved and supported by senior executives to provide effective governance and leadership. Senior executive oversight is necessary to set strategic direction for the Provincial BCMP, and effectively monitor and measure progress against key performance indicators. This will ensure program requirements are achieved and aligned with the objectives of the Provincial BCMP. Industry good practices further suggests the appointment of a senior executive sponsor for BCMP to strengthen strategic oversight.

Overall, we found that there are opportunities to strengthen senior executive oversight and sponsorship of the Provincial BCMP. The IEPC which was co-chaired by a senior executive from EMBC and from one other Ministry was dissolved in 2017. Currently, the Assistant Deputy Ministers' Committee on Emergency Management supports the Deputy Ministers' Committee on Emergency Management; however, Business Continuity has not been a primary focus of these committees. To increase the Province's ability to establish a consistent and coordinated approach for Business Continuity, a senior executive committee with representation from across Ministries should assume the responsibilities outlined in the CPPM above. In addition, a Deputy Minister or similar senior executive sponsor should be appointed to increase accountability of the committee's roles and responsibilities.

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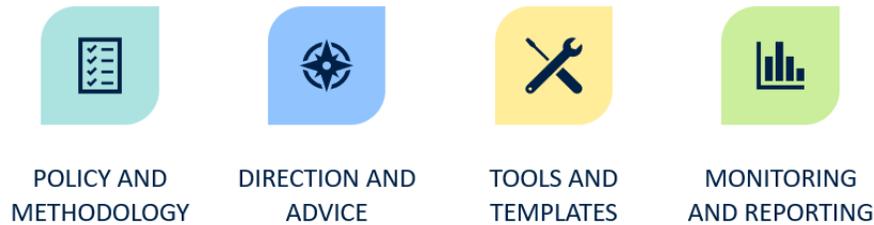
### Recommendation:

- (1) EMBC should co-chair a senior executive committee responsible for providing strategic direction and oversight of the Provincial BCMP, sponsored by a Deputy Minister.
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## 1.2 EMBC Oversight

EMBC provides coordination and oversight of the Provincial BCMP to Ministries through two Provincial Business Continuity Advisors, who are part of the Recovery, Planning and Disaster Risk Reduction Division.

**Figure 4: EMBC Provincial Business Continuity Advisors Responsibilities**



**Source:** IAAS, adapted from the CPPM

EMBC undertakes a wide range of activities to meet the requirements set out in the CPPM, including developing and updating BCMP guidance, templates and tools, and engaging with Ministry Business Continuity Advisors.

However, we found that additional direction from EMBC is required in key program areas, for example guidance on BCMP terminology including Critical Services should be strengthened across Government. While EMBC’s strategic planning processes include the Provincial BCMP, the program does not have a clear strategic and operational plan outlining the purpose, priorities and goals of the Provincial BCMP to ensure consistency in approach and program effectiveness across all Ministries.

We considered whether EMBC is appropriately resourced to lead and oversee the Provincial BCMP. We found that currently there are two Provincial Business Continuity Advisor positions, with one focused on Continuity of Government and the other on the Provincial BCMP. During significant disruptive events, the senior positions providing oversight of the Provincial Business Continuity Advisors are responsible for supporting a cross-government Business Continuity response. This responsibility removes them from regular BCMP activities for the duration of the disruptive event making it difficult to consistently progress BCMP work.

The requirements of the CPPM and industry good practice expectations of a provincial program necessitate a sufficient number of dedicated resources in order to fulfill program requirements, raise cross-government readiness and foster Ministry Business Continuity program maturity. This includes working effectively with key stakeholders across Government, including executive committees. We found that EMBC is not currently resourced to fulfill these expectations. A more appropriate resource model, as established in other jurisdictions, may include a team of dedicated Provincial Business Continuity Advisors which is overseen by a dedicated, more senior position.

## Identification and Evaluation of Critical Services

A key function of EMBC's Provincial BCMP is to provide strategic direction of the CPPM requirements to Ministries to ensure consistency in Business Continuity staffs' understanding of the BCMP process, activities and terminology.

The identification of Critical Services by each Ministry is the initial and fundamental step in the BCMP process which determines the subsequent Ministry BCMP processes. To ensure consistency of this process across Ministries, it is important for EMBC to review, consolidate and evaluate Mission Critical priorities at the province-wide level. Further, a cross-government assessment and prioritization of Mission Critical Services allows Government to continue these services after a large-scale disruptive event where multiple Ministries are affected, and resources are significantly impacted.

The CPPM requires that EMBC assess Ministry Mission Critical Services and recommend consolidated Mission Critical priorities for government-wide review and approval. Prior to 2017, EMBC consolidated the Mission Critical Services provided by Ministries and they were approved by the Deputy Ministers' Council. In 2017, Government established the Catastrophic Response Action (CRA) initiative.<sup>4</sup> The CRAs have received recent focus and priority by the Deputy Ministers' Committee for Emergency Management.

In 2015, the BC Earthquake Immediate Response Plan was released, identifying CRAs for Government in the aftermath of a catastrophic disaster, such as an earthquake.

Ministry Business Continuity staff reported confusion about the CRA initiative and how it relates to Critical Services. We found that sample organizations have not incorporated CRAs into current BCMP processes and EMBC's Business Continuity tools and templates do not currently incorporate CRA processes. Few Business Continuity Advisors, who were in their roles at the time of this review, indicated their involvement in, or knowledge of, Ministry CRAs. This has resulted in a gap between those Critical Services identified through Ministries' BCMPs and those that the Government reviews as part of the CRA initiative.

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<sup>4</sup> Evaluation of the effectiveness of the CRA initiative was not part of the scope of our review as it is currently in progress.

Using a more consistent approach to identify Critical Services across Ministries, enables Government to determine the most fiscally responsible, suitable and reliable Business Continuity solutions. Overall, the Provincial guidance, review and prioritization of Critical Services across Government should be strengthened to better align Ministry BCMP processes with strategic goals of the Provincial BCMP, including the ongoing CRA initiative.

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### **Recommendations:**

- (2) EMBC should develop a strategic plan that clearly outlines the purpose, priorities, and goals of the Provincial BCMP and an operational plan that describes the required tasks and timelines to meet strategic objectives.
  - (3) EMBC should ensure the Provincial BCMP has appropriate, dedicated resources to provide coordination, oversight and support for Business Continuity across Government.
  - (4) EMBC should further define and evaluate Ministries' Critical Services and recommend priorities to a senior executive committee for a cross-government response.
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### 1.3 Ministry Oversight

The CPPM assigns responsibility to Deputy Ministers for implementing a BCMP in their Ministry. This includes incorporating BCMP objectives and performance measures into Ministry business plans and providing adequate resources, appropriate controls and knowledgeable personnel to support the ongoing management of the Ministry BCMP. Strong executive engagement, including setting strategic direction and reviewing BCMP processes and activities, ensures the objectives of the BCMP are established, implemented and aligned with Ministry strategic objectives.

We found sample organizations executive engagement is inconsistent. Ministry and division executive review annual **BCMP scorecard** results, and division senior management and executives review and approve Critical Services annually.

The **BCMP scorecard** includes Ministries' self-assessment of the Business Continuity Advisor time dedicated to BCMP activities; the number of Critical Services, BCMP outputs required; the number of BCPs updated and exercised; and overall comments on Ministries' BCMP activities.

However, there is a lack of qualitative review or critical evaluation of Critical Services and related Business Continuity recovery strategies and objectives at an organizational level. Division and program areas generally perform BCMP activities and processes in isolation of each other, leading to a potential lack of integration with other divisions and program areas. A bottom-up approach ensures that those responsible for the continuation of Critical Services are involved in the decision-making process. Ministries' lack of a consolidated assessment of Critical Services, however, has contributed to a significant number of Critical Services across the sample organizations. In order to facilitate an efficient cross-government consolidation and evaluation by EMBC, Ministries should further evaluate their Critical Services.

For Ministries with a high number of Critical Services, we also found no further prioritization of Critical Services at the division and Ministry level beyond the identification of **Recovery Time Objectives (RTOs)**. As such, the resource requirements to achieve resumption of Critical Services with the same RTOs are potentially conflicting during an event where multiple BCPs in a Ministry are activated.

#### **Recovery Time Objectives**

The amount of time that a business function can withstand an interruption before a negative or unacceptable consequence occurs.

We considered whether Ministries incorporate Business Continuity into their organizational culture by integrating and aligning BCMP processes with related management disciplines, such as strategic or operational planning processes. During our review, we observed few formal linkages between BCMP and sample organizations' strategic, business service or operational planning. In addition, we found that few sample organizations hold regular meetings between Business Continuity and other staff at the branch, division and Ministry level leading to a potential lack of integration of BCMP with other Ministry business processes. Taking a collaborative and integrated approach to Business Continuity within each Ministry increases awareness and improves overall organizational resilience.

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### Recommendations:

- (5) Ministry executives' oversight of BCMP should include setting the strategic direction, evaluating and prioritizing Critical Services, and reviewing ongoing program effectiveness.
  - (6) Ministries should incorporate Business Continuity into other Ministry processes and activities, including strategic planning processes and regular meetings.
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## 2.0 Execution

A comprehensive BCMP process encompasses the analysis, design, implementation and validation of recovery strategies for Critical Services. The CPPM requires the development and maintenance of three key BCMP outputs: a Risk Assessment, that determines the risks of disruption to a Ministry; a **Business Impact Analysis (BIA)**, that identifies and prioritizes the Critical Services of a Ministry; and a BCP, that identifies strategies to resolve disruptions to its Critical Services.

### Business Impact Analysis

A detailed and documented process designed to identify and prioritize business functions and workflow, including establishing Recovery Time Objectives by assessing impacts over time that might result if an organization was to experience a disruptive event.

### 2.1 Provincial BCMP Approach

The BCMP guidance, provided by EMBC, suggests Ministries adopt a site-based approach, where each Ministry location is advised to develop, maintain and exercise a BCP. We found that sample organizations generally prepare BCPs per site or business unit regardless of whether the site or business unit performs Critical Services. Ministries count and report the number of BCPs on an annual basis. This number fluctuates based on Ministry re-organizations. While the number of Ministries' BCPs across the Province was not substantiated during our review, we estimate that there were over 1,000 BCPs in the 2019 program year. The site-based approach has contributed to a significant administrative effort for Ministries and makes integration of BCPs within and across Ministries a challenge.

Overall, there are opportunities to promote the development of BCPs using a risk-based, scalable approach which would increase focus on Government's most Critical Services. This approach suggests developing recovery strategies by taking into consideration the impact and likelihood of disruptive events, as well as existing and desired mitigation strategies for each Critical Service. As a result, the extent of recovery strategies documented in BCPs should vary and focus on recovery procedures for most Critical Services where current capabilities do not meet the requirements determined by Ministries.

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#### Recommendation:

- (7) EMBC should provide clear direction and oversight to Ministries to ensure that Business Continuity activities are focused on Government's most Critical Services by following a risk-based approach.
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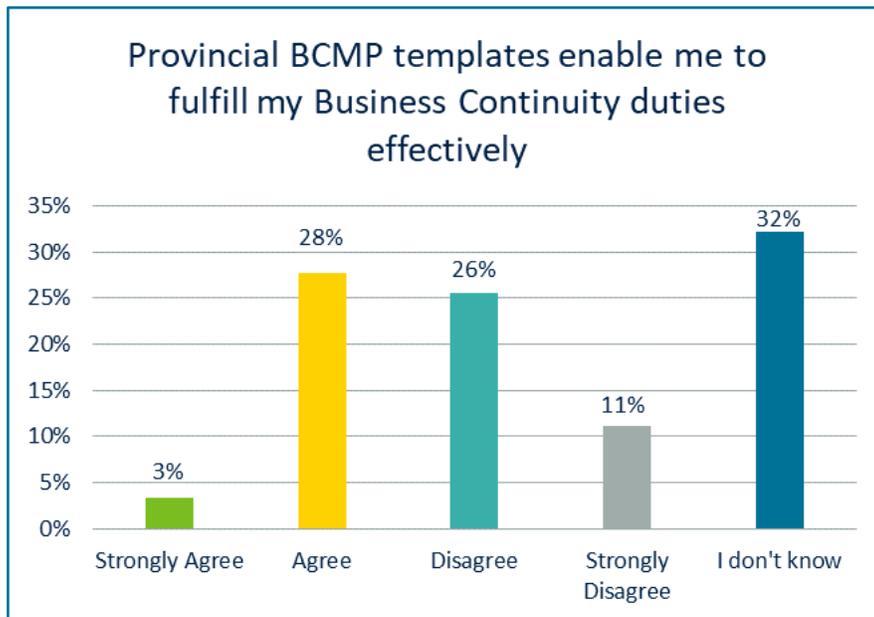
## 2.2 Provincial Tools and Templates

BCMP tools and templates play an integral role in directing Ministries' Business Continuity processes and activities by formally documenting Critical Services and their recovery strategies to effectively guide recovery after a disruptive event. The CPPM requires that EMBC Provincial Business Continuity Advisors provide the methodology, templates and tools in support of Ministries' BCMPs.

Industry good practices indicate that tools and templates should be clear, user-friendly, and concise to facilitate efficient completion during planning and effective implementation during recovery. In recent years, other jurisdictions have moved away from complex, one-size-fits-all templates, towards guidance documents where minimum requirements are communicated, and Business Continuity staff determine the format and content of plans. BCMP tools and templates should be regularly reviewed and updated to ensure continuous improvement and alignment with good practices.

EMBC has developed Provincial templates for Ministry BCMP outputs and has provided guidance to complete these templates and additional resources which are shared through the Provincial BCMP SharePoint site. Ministry Business Continuity staff noted that EMBC tools and templates are outdated, difficult to navigate and cannot be tailored to meet Ministries' unique program needs. Only 31% of BCMP survey respondents indicated that current Provincial BCMP templates meet their needs.

**Figure 5: BCMP Survey Result: Effectiveness of Provincial BCMP Templates**



Source: IAAS BCMP Survey

In June 2019, EMBC established a working group with Ministry Business Continuity Advisors to advance the development of BCMP tools and templates, recognizing the importance of stakeholder engagement. At the time of our fieldwork, EMBC's update of the BCP template was still in progress and updates to the Risk Assessment and the BIA had not been initiated. To ensure that tools and templates meet Ministries' and Provincial BCMP needs and are aligned with industry good practices on an ongoing basis, EMBC should develop a review strategy to meet its strategic and operational objectives.

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**Recommendation:**

- (8) EMBC should regularly review and update the Provincial BCMP tools and templates, ensuring they align with current industry good practices, to meet Ministry and Provincial BCMP needs.
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## 2.3 Ministry and Cross-Government Activities

Ministries' CPPM responsibilities include reviewing and updating BCMP documentation annually and when key changes to business, legislation or policy occur. Industry good practice expectations include developing and regularly testing and reviewing recovery strategies by taking into consideration Critical Services' RTOs and interdependencies within and outside the Ministry. This approach allows Ministries to focus on the most Critical Services by scaling BCMP processes appropriately, while meeting the CPPM and good practice expectations.

We found that sample organizations generally have established BCMPs where all branches and divisions follow the same comprehensive BCMP update process. Business Continuity staff view this approach as administratively burdensome as it does not prioritize development of recovery strategies for the most Critical Services. In addition, sample organizations' processes to assess CPPM compliance and address non-compliance is unclear. Overall, we found that Ministries experience challenges complying with annual CPPM requirements. This highlights the need for a risk-based, scalable approach to the Provincial BCMP. Given the diversity and complexity of Ministry operations across the Province, Ministries need to further develop their own policy which aligns Ministry objectives with the CPPM requirements, EMBC guidance and good practices.

Further, it is unclear how Ministries have considered dependencies on network or telecommunication failures when determining RTOs for Critical Services and developing the associated recovery strategies. Ministries identified the reliance on the Office of the Chief Information Officer and other service providers for network connectivity as a key challenge. EMBC, Ministries and central agencies should work together to ensure that Ministry recovery expectations are supported by and aligned with central service resumption plans. In areas of discrepancy, alternate strategies must be developed to ensure the delivery of Critical Services.

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### Recommendations:

- (9) Ministries should develop a BCMP policy which aligns Ministry objectives with EMBC guidance, the CPPM requirements and good practices; and outlines scalable processes for program areas and sites depending on their Critical Services.
  - (10) EMBC should work with central agencies, such as the Office of the Chief Information Officer and service providers, to provide information and advice regarding cross-government recovery strategies.
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## 3.0 Exercising and Validation

The purpose of exercising and other validation processes is to confirm the BCMP meets its objectives and that the recovery strategies and procedures are effective. Effective validation is achieved through exercising BCP and **Ministry Operation Centre (MOC)** plans, maintaining Ministries' and the Provincial BCMP, and reviewing performance measures and BCMP outputs.

A **Ministry Operation Centre** is a centre operated by each Ministry that includes senior executive and Business Continuity staff. The purpose of a MOC is to prioritize Ministry response and coordinate with EMBC and Government during a business disruption.

### 3.1 Exercising

To test its Business Continuity strategy, organizations carry out exercises to practice implementation with Business Continuity staff and identify areas for improvement. Recovery strategies for Critical Services cannot be considered reliable or effective until they have been comprehensively tested. A **BCP exercise** is different from a **BCP activation** as it provides opportunities for comprehensive testing of recovery strategies of Critical Services across a Ministry and its divisions. Exercising supports the continuous improvement of BCMP capabilities and readiness by ensuring that lessons learned are integrated into prevention, mitigation, planning, training and future exercising activities.

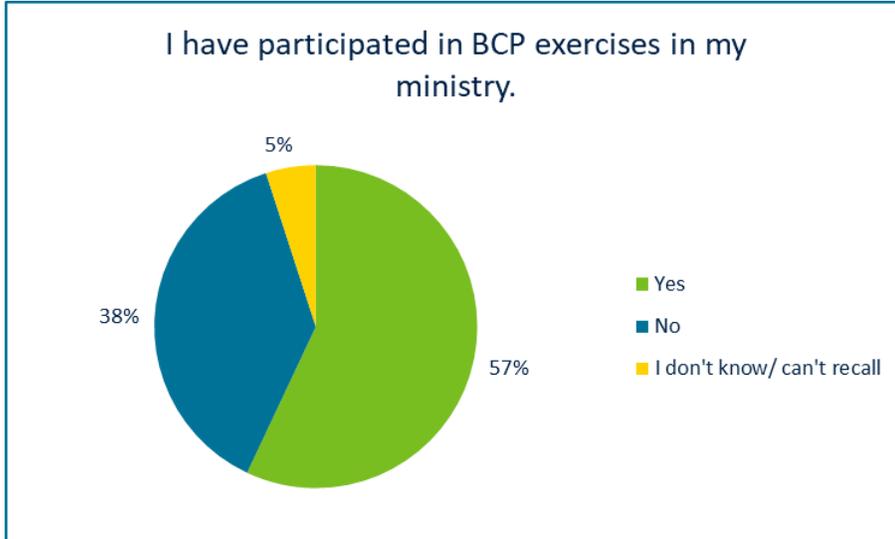
A **BCP exercise** is the process to train for, assess, practice and improve performance in an organization.

A **BCP activation** is the mobilization of resources according to the BCP after a disruptive event has occurred.

In order to continuously strengthen recovery procedures, good practice expectations include: regular and varied exercises at the division and Ministry level; consideration of interdependencies and integration within and outside the Ministry; and review and follow up of lessons learned with active executive involvement. The CPPM requires that Ministries exercise BCPs and MOC plans at least annually, and as changes to the organization warrant. Ministry Business Continuity Advisors are responsible for developing and facilitating Ministry level exercises, as well as tracking issue resolution.

Overall, we found that exercising of BCPs and MOC plans across Ministries is inconsistent. As shown in Figure 6, only 57% of BCMP survey respondents indicated having participated in a BCP exercise.

**Figure 6: BCMP Survey Result: BCP Exercise Participation**



**Source:** IAAS BCMP Survey

In addition, some sample organizations do not currently perform exercises or only exercise a limited number of BCPs at a high-level. Some sample organizations substituted their BCP exercises with BCP activations, such as during a wildfire or flood. While BCP activations test recovery strategies for those Critical Services impacted by the disruption, BCP exercises provide opportunities for more comprehensive testing of recovery strategies of Critical Services across the Ministry and require participation of all Business Continuity staff. A more robust exercise program would include progressively more complex exercises that comprehensively test recovery strategies.

Staff who regularly participate in BCP exercises see significant value in the process but noted challenges to incorporate lessons learned in order to strengthen their BCPs. We found active executive engagement in BCP and MOC plan exercises and lessons learned was inconsistent across sample organizations. Ministry executives should fulfil a pivotal role in the lessons learned process, fostering continuous improvement and advancing program maturity.

EMBC is responsible for supporting Ministries in their exercising through providing tools and templates to assist in Ministry exercises. EMBC shares BCP exercise templates through the Provincial BCMP SharePoint. However, Ministry Business Continuity Advisors have identified a need for further guidance from EMBC. This would create a more efficient testing regime, while establishing consistency across Ministries.

We expected EMBC to validate provincial wide area Business-Continuity strategies through coordinating and facilitating Province-wide Business Continuity exercises. We found that EMBC has facilitated cross-government initiatives, such as a coastal response to a catastrophic earthquake, and is currently engaged in a three-year exercise program that culminates in a cross-government emergency operations centre exercise in 2022. Available to all Ministries, this exercise program includes Business Continuity as a main objective. Further emphasis on Business Continuity exercises assists EMBC and Ministries to evaluate the effectiveness of Province-wide recovery strategies. EMBC should assess the maturity of these Ministry exercises and report progress to the senior executive committee.

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### Recommendations:

- (11) Ministries should develop a comprehensive Business Continuity exercise program which includes annual BCP and MOC exercises and focuses on prioritized Critical Services.
  - (12) Ministry executive should be actively involved in lessons learned and review actions taken to address the risks identified.
  - (13) EMBC should develop guidance, tools and templates in support of exercising and training of Ministry BCMP.
-

## 3.2 Validation

In addition to exercises, validation procedures can include self-assessments, reviews and audits of BCMP activities and outputs. The CPPM requires Ministries to report the status of Ministry-wide Business Continuity to EMBC semi-annually, and as requested. EMBC Provincial Business Continuity Advisors are responsible for monitoring and reporting on Ministry BCMP compliance with the CPPM and EMBC standards. In addition, the CPPM enables EMBC to validate Ministry plans through a review of Ministries' BCMP documentation in order to identify deficient or non-compliant areas, and to monitor resulting remediation plans to address required actions identified.

Annually, Ministries are responsible for assessing and reporting on their progress to EMBC, through completion of the BCMP scorecard which is approved by their Deputy Minister. EMBC consolidates individual Ministry scorecards to obtain an understanding of Ministries' self-assessed compliance with the CPPM but does not validate Ministries' assertions. An important aspect of validation is to identify program gaps to advise and assist Ministries in improving their programs. We also found that information reported in sample organization scorecards was inconsistent with BCMP documentation we reviewed, such as lower numbers of Critical Services on the scorecard. In addition, the scorecard does not assess Ministries' BCMP maturity. Monitoring and validating the maturity of Ministry BCMPs using a risk-based approach would allow EMBC to identify potential gaps in the Provincial BCMP and identify program improvements. A risk-based monitoring approach could involve periodically reviewing a sample of Ministry BCMP outputs based on risk such as compliance trends, significant staffing or program changes in Ministry BCMP or overall organizational changes.

EMBC currently does not report on Ministry maturity or the effectiveness of Ministry BCMPs. As a result, senior executives may not have an accurate understanding of how Ministry BCMPs are performing. A greater emphasis on qualitative measurement and data validation combined with senior executive committee oversight would provide additional clarity on cross-government BCMP maturity and identify areas for further development.

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### Recommendation:

- (14) EMBC should use a risk-based approach to review Ministry BCMP maturity and report results to a senior executive committee annually.
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## 4.0 Knowledge, Skills and Training

A rigorous BCMP is supported by Business Continuity staff that have the requisite knowledge, skills and training to manage and execute the program. The CPPM requires that Ministries deliver general awareness and training activities to all staff members. The capacity of Ministry programs and the skills of Business Continuity staff have a considerable impact on the maturity and evolution of Ministries' BCMP.

### 4.1 Ministry Business Continuity Staff Knowledge and Skills

The CPPM requires that each Ministry have a Business Continuity Advisor, responsible for managing the Ministries BCMP, and, if Ministry size and complexity requires, identify Business Continuity Coordinators to assist at the region, branch or division level. In addition, Ministries have recovery team members who are responsible for carrying out recovery procedures during a BCP activation. Business Continuity Coordinators usually carry out the planning processes and activities for their branches or divisions while Recovery Team Members implement recovery strategies after a disruptive event, as directed by the Advisors.

**Figure 7: Ministry Business Continuity Staff Responsibilities**



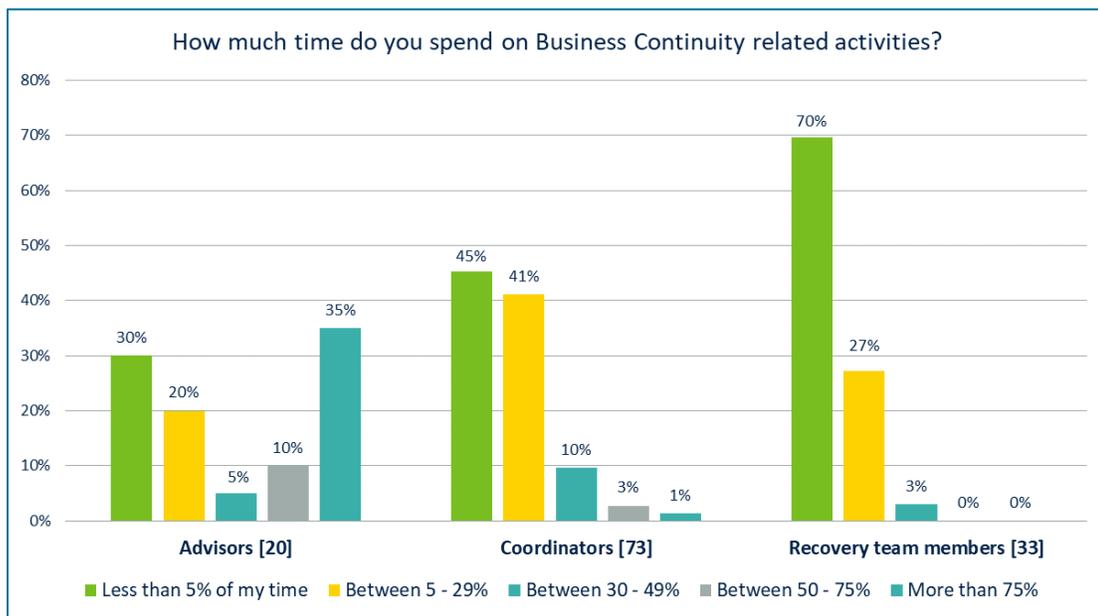
**Source:** IAAS adapted from the CPPM and EMBC guidance

Overall, we found there are gaps in understanding the purpose and value of Business Continuity across sample organizations, and only 35% of survey respondents noted they have a good understanding of the CPPM requirements. We found that the experience and knowledge of Business Continuity staff across Ministries varied significantly.

It is considered an industry good practice for key Business Continuity staff to hold formal certifications. Therefore, Government may benefit from more consistent training opportunities for Business Continuity Advisors through industry certification bodies. 45% of Advisors surveyed indicated that they have held a Business Continuity role with Government for less than 2 years. For sample organizations, we found that branches and divisions often delegate Business Continuity Coordinators responsibilities to junior positions and there is a high level of turnover. Their Business Continuity responsibilities are generally not included in job descriptions, and the completion of Business Continuity tasks face competing Ministry priorities. Branches and divisions generally assign Recovery Team Member responsibilities to more senior positions such as Directors. However, the Recovery Team Members' understanding of their role and their involvement in BCMP planning activities was inconsistent.

In addition, Ministry Business Continuity staff surveyed across Government indicated that the time they dedicate towards Business Continuity tasks varied considerably, with 52% of staff surveyed indicating they spend less than 5% of their time on BCMP activities.

**Figure 8: BCMP Survey Result: Time Staff Spent on Business Continuity Activities**



Source: IAAS BCMP survey

We found that the majority of Business Continuity Advisors across Ministries are not a dedicated resource. Business Continuity Advisor job classifications vary significantly, and few hold management positions. Given the extensive responsibilities of Business Continuity Advisors, a more consistent approach to their job classifications would increase Ministries' ability to attract and retain skilled and experienced personnel. In doing so, Ministries should consider their program needs, effectiveness and maturity when determining the resourcing of these positions. This might include the determination of an appropriate classification range from which Ministries can choose based on their program size and complexity to ensure that Ministry BCMPs can be developed, implemented and managed effectively.

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### Recommendations:

- (15) Ministries should further define roles and responsibilities of Business Continuity staff as they relate to BCMP planning and response activities and ensure that Recovery Team Members are actively engaged in planning activities.
  - (16) Ministries, in collaboration with EMBC and the Public Service Agency, should review their Business Continuity Advisor job position and its requirements to ensure a consistent approach which attracts and retains talent.
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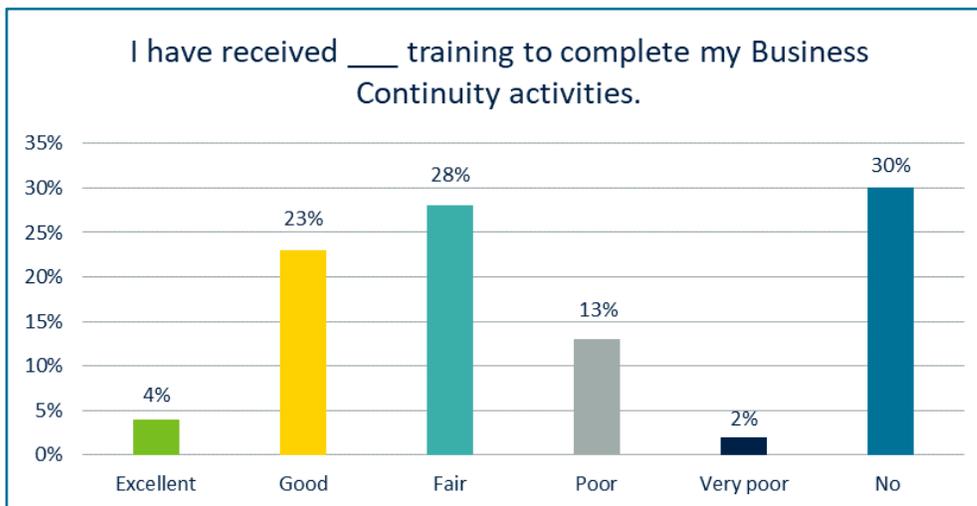
## 4.2 Training Strategy and Activities

Regular training enables staff to effectively perform their roles. The CPPM requires that EMBC's Provincial Business Continuity Advisors provide the methodology, templates and tools in support of Ministry training BCMP activities while Ministries provide adequate resources to support Business Continuity training. Ministry training activities should include plan orientations, reviews, and exercises for Business Continuity staff; as well as general awareness training opportunities for all staff members.

### *Ministry Training Activities*

We found that Ministry training across Government varies. While Ministries generally provide annual Recovery Team Member and MOC training, training offered to Business Continuity Coordinators could be strengthened. Overall, 30% of Business Continuity staff surveyed indicated that they have received no training for their Business Continuity responsibilities.

**Figure 9: BCMP Survey Results: Training Received by Business Continuity Staff**



Source: IAAS BCMP survey

In addition, Ministry Business Continuity staff expressed a need for more comprehensive training strategies to ensure staff involved in BCMP planning and recovery have the requisite skills and knowledge to carry out their responsibilities meaningfully. Therefore, consistent and comprehensive training is necessary to advance the development of the requisite skills required to support BCMP activities and advance program maturity.

## *Provincial Training Strategy*

A comprehensive training program is reinforced by appropriate tools, templates and support. We found that EMBC has developed some training material for Ministry staff, helped train and support Ministry staff on an informal or ad-hoc basis, and facilitated discussion with Ministry Business Continuity Advisors through monthly meetings.

However, the development of an overall BCMP training strategy, including comprehensive training guidance and tools would assist Ministry training activities and provide a common learning platform for provincial Business Continuity. Ministry Business Continuity Advisors identified challenges in providing consistent training for Business Continuity staff across Ministries and expressed a need for further EMBC tools and guidance to support training of Ministry staff. A comprehensive training program would foster a greater understanding of cross-government Business Continuity and better support Ministry training requirements.

In addition, we found that there is no Business Continuity training for all staff across Government. While the CPPM requires each Ministry to deliver training and general awareness to all staff, there is no cross-government approach to support this requirement. Business Continuity training for all Government staff raises general awareness and provides a basis for effective knowledge transfer. Further, a cross-government approach to the development and delivery of training materials is efficient and promotes consistent understanding of key terminology across the Province.

The CPPM requires each Ministry to deliver general awareness and training to all staff; however, we found there is no cross-government approach to support this requirement. An introductory training course offered by the Public Service Agency would raise awareness of Business Continuity and promote a basic understanding of the key concepts and terminology across all Government staff.

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### **Recommendations:**

- (17) EMBC should develop and Ministries should deliver a comprehensive BCMP training strategy for all Business Continuity positions.
  - (18) EMBC should work with the Public Service Agency to increase awareness of Business Continuity across Government through the development of an introductory training course available to all Government staff.
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## Appendix A - Summary of Recommendations

1	EMBC should co-chair a senior executive committee responsible for providing strategic direction and oversight of the Provincial BCMP, sponsored by a Deputy Minister.
2	EMBC should develop a strategic plan that clearly outlines the purpose, priorities, and goals of the Provincial BCMP and an operational plan that describes the required tasks and timelines to meet strategic objectives.
3	EMBC should ensure the Provincial BCMP has appropriate, dedicated resources to provide coordination, oversight and support for Business Continuity across Government.
4	EMBC should further define and evaluate Ministries' Critical Services and recommend priorities to a senior executive committee for a cross-government response.
5	Ministry executives' oversight of BCMP should include setting the strategic direction, evaluating and prioritizing Critical Services, and reviewing ongoing program effectiveness.
6	Ministries should incorporate Business Continuity into other Ministry processes and activities, including strategic planning processes and regular meetings.
7	EMBC should provide clear direction and oversight to Ministries to ensure that Business Continuity activities are focused on Government's most Critical Services by following a risk-based approach.
8	EMBC should regularly review and update the Provincial BCMP tools and templates, ensuring they align with current industry good practices, to meet Ministry and Provincial BCMP needs.
9	Ministries should develop a BCMP policy which aligns Ministry objectives with EMBC guidance, the CPPM requirements and good practices; and outlines scalable processes for program areas and sites depending on their Critical Services.
10	EMBC should work with central agencies, such as the Office of the Chief Information Officer and service providers, to provide information and advice regarding cross-government recovery strategies.
11	Ministries should develop a comprehensive Business Continuity exercise program which includes annual BCP and MOC exercises and focuses on prioritized Critical Services.
12	Ministry executive should be actively involved in lessons learned and review actions taken to address the risks identified.
13	EMBC should develop guidance, tools and templates in support of exercising and training of Ministry BCMP.
14	EMBC should use a risk-based approach to review Ministry BCMP maturity and report results to a senior executive committee annually.
15	Ministries should further define roles and responsibilities of Business Continuity staff as they relate to BCMP planning and response activities and ensure that Recovery Team Members are actively engaged in planning activities.
16	Ministries, in collaboration with EMBC and the Public Service Agency, should review their Business Continuity Advisor job position and its requirements to ensure a consistent approach which attracts and retains talent.
17	EMBC should develop and Ministries should deliver a comprehensive BCMP training strategy for all Business Continuity positions.
18	EMBC should work with the Public Service Agency to increase awareness of Business Continuity across Government through the development of an introductory training course available to all Government staff.

## Appendix B - Abbreviations

BCMP	Business Continuity Management Program
BCP	Business Continuity Plan
BIA	Business Impact Analysis
CPPM	Core Policy and Procedures Manual
CRA	Catastrophic Response Action
EMBC	Emergency Management BC
Government or Province	Government of British Columbia
IAAS	Internal Audit & Advisory Services
IEPC	Inter-Agency Emergency Preparedness Council
MOC	Ministry Operations Centre
RTOs	Recovery Time Objectives